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Sustainability
Report
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This PDF is
an extract
from the audited
Pfeiffer Vacuum
Annual Report
2022

Sustainability Report 2022

1. REPORT TYPE

For the 2022 fiscal year, Pfeiffer Vacuum Technology AG ("Pfeiffer Vacuum") prepared a non-financial Group Statement in accordance with the "Law to Strengthen the Non-Financial Reporting of Companies in their Management Reports and Group Management Reports" ("CSR-RUG"). This report meets the requirements of §§ 315b and 315c in conjunction with §§ 289c to 289e of the German Commercial Code ("HGB") as well as of the regulation (EU) 2020/852 of the European Parliament and of the council of 18th June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088 ("EU Taxonomy Regulation"). In the same way as for financial reporting, it shows how material "non-financial" or sustainability issues are managed for the entire Group. In this context, we use the term "sustainability report" to express that sustainability impacts are not non-financial and to already express the conceptual correction at the legal level of the Corporate Sustainability Reporting Directive (CSRD) that is foreseeable in the future. Information that does not relate to the entire Group is indicated accordingly.

This statement was audited by PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft, Frankfurt am Main, on behalf of the Supervisory Board. A limited assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised) was performed. The audit report is produced following the Independent Auditor's Report of the Consolidated Financial Statements and of the Group Management Report. References to statements or any other disclosure outside the Group Management Report are additional information and are not part of the non-financial Group Statement.

For a structured description of the contents pursuant to § 315c in conjunction with §§ 289c to 289e of the German Commercial Code (HGB) in the non-financial consolidated statement, Pfeiffer Vacuum follows the standards of the Global Reporting Initiative (GRI). The description of the concepts required by the HGB is based on the structure of the GRI management approaches. This is applied in the description of the materiality analysis as well as in the management approaches to "environmental matters," "employee matters," "respect for human rights," "combating corruption and bribery" and "other matters" (GRI 3: Material Topics 2021). In addition, a GRI Content Index compares the GRI indicators with corresponding reporting. The GRI Content Index is published in accordance with the GRI Standards (see from p. 206 ff.). The information on the fulfillment of GRI indicators as well as references to information outside the Group Management Report or Consolidated Financial Statements are additional information and not part of this non-financial Group Statement. Therefore, they are not part of the audit according to ISAE 3000 (revised) and are marked with a footnote in the following.

For a description of Pfeiffer Vacuum's business model, please refer to the section entitled "Corporate Profile" (see from p. 27).

Companies that are obliged to publish a non-financial report are required to provide information on "environmentally sustainable" sales revenues, investments (CapEx) and operating expenses (OpEx) in accordance with the EU Taxonomy Regulation. Pfeiffer Vacuum complies with this obligation and reports on the taxonomy eligibility and conformity of the Group's economic activities (see from p. 89).

Scope of the Report

The present statement provides information on the main developments in the 2022 fiscal year with respect to the five legally required aspects of environmental matters, respect for human rights, employee matters, social matters and the fight against corruption and bribery. This report covers a number of management concepts and key figures for all sites of our Group. Significant deviations from the previous year are indicated and described in more detail in the relevant text passages.

2. SUSTAINABILITY AT PFEIFFER VACUUM

Your Success. Our Passion. Our guiding principle applies throughout our entire Company: The more passionately we work, the greater the success of our customers and thus the greater our own success. Our passion, the motivation of each and every one of us – the Supervisory Board, Management Board, and every member of staff, worldwide - represents the enduring, common driving force for creating highly efficient products and services.

In this respect, our commitment to being a leader in our market, in terms of our sustainable business practices, is particularly important to us, because this is our special contribution that goes beyond economic success: the ecological/social optimization of our operations and products. Sustainable added value is becoming increasingly important in international competition, and with our entire value creation we contribute to the necessary ecological/social transformation of the economy and of society, by producing our products in an environmentally-friendly and socially beneficial manner, for the wide range of applications of our many different customers.

2.1 Sustainability Strategy

Our strategy pursues objectives that we meet by applying efficient management processes and implementing suitable measures: the common goal of sustainable management; achieving competitive advantages through products with a positive ecological and social effect; and a correspondingly high level of motivation and drive to fuel our continued joint innovation for international growth markets.

This Sustainability Report describes our key developments, continuing where our previous annual non-financial reports left off. Our entire sustainability management system is based on the relevant international provisions regarding the sustainable transformation of economic activity, set out by the United Nations, and in the relevant national laws of the countries in which we operate (see chapter “2.2 Responsible Corporate Governance”), and our system follows the international reporting guidelines of the Global Reporting Initiative (GRI: Foundation 2021). We updated our sustainability strategy in 2022 to take into account the effects that our economic activities have on the environment and society, as well as the evolving effects that the environment and society have on us.

In accordance with our sustainability strategy we organize our management processes and measures, which we put into practice and expand throughout our value chain on a continuous basis. This is the first time that we have structured our sustainability report along the same lines as our value chain. This allows us to show the measures taken in the individual value creation steps and to integrate the sustainability strategy in our corporate strategy.

Stakeholder Dialog

Within the framework of our relationship management, our stakeholders’ expectations of us and our expectations of them are fundamental when it comes to determining reciprocal impacts in society and the environment. The impacts relevant to our sustainability strategy are identified, first and foremost, in collaboration with our stakeholders, with whom we maintain a regular and transparent dialog. Our relevant stakeholders include groups and institutions to whom we have a direct or indirect connection through our business activities and who are therefore just as interested in our sustainable actions as we are. These primarily include our customers, shareholders/investors, employees, authorities, suppliers, public opinion, municipalities, local authorities/politics and banks.

We maintain a dialog with our stakeholders, based on partnership and trust, in order to determine their expectations towards our business activities and sustainability performance and, in turn, to keep them informed about current developments in our business activities, sustainability performance and goals. Our stakeholders’ expectations together with environmental developments influence how we align and continuously improve our sustainability management to make our value creation more sustainable. Our forms of dialog also focus on identifying our stakeholders’ expectations during the course of our day-to-day business relationships, e.g. with our suppliers (see chapter “3.2 Procurement/Supply Chain Management”), employees (see chapter “4. People, Culture and Values”), and within the framework of joint sustainability and product development with our customers (see chapter “3.3 Production”), e.g. in our Silicon Valley Innovation Center in San José, and at various trade fairs, etc.

We are also constantly exchanging information with our shareholders, investors, analysts and journalists, in company presentations during roadshows, via analyst calls, or by means of news on our website. They are particularly interested in our ratings from international rating agencies: In 2022, we received independent ratings regarding our sustainable business practices from Sustainalytics and Standard & Poor's. Our Sustainalytics rating from October 2022 ranked us 84 out of 561 in the industrial machinery sector. In March 2022, we managed to improve our rating with Standard & Poor's by 107 %, and increase our number of points from 16 to 31 (the average for the industry peer group was 18 points).

Our Most Important Sustainability Topics

Overall, in developing our sustainability strategy, we have drawn on all the knowledge available within the Company on the impacts that affect us, in line with the expectations of our stakeholders and with developments in nature and society relating to sustainable business. In order to analyze relevant current and potential impacts on the economy, environment, and society (including human rights) relating to our economic activities and business relationships, we continuously use information from various sources: our Risk Management System, our Management System and complaints mechanisms from Compliance, our continuous sustainability data measurements, regulatory reviews, financial and internal audits, health and safety at work inspections, shareholder registrations, business relationships, our collaborations with universities, our workforce, all stakeholder dialogs and, last but not least, media developments, particularly in the field of sustainable business. Our CEOs and the heads of all our business units bring this knowledge to our CSR Board, (see section "2.2 Responsible Corporate Governance"), which leads our sustainability management and held a series of workshops on CSR strategy development in 2022.

In our series of workshops, we used our materiality analysis from previous years as a basis for compiling the stakeholders' expectations as well as negative and positive impacts (impacts on our Company and our impact on the environment/society). We then examined these with regard to their relevance for our entire Company and the value creation steps, documented them, and condensed them into key topics. We ensure that the impacts are complete and kept up to date by applying the current international GRI reporting framework with its relevant indicators, and by referring to reports from governments, environmental agencies, international organizations, NGOs, trade unions, media and relevant technical experts.

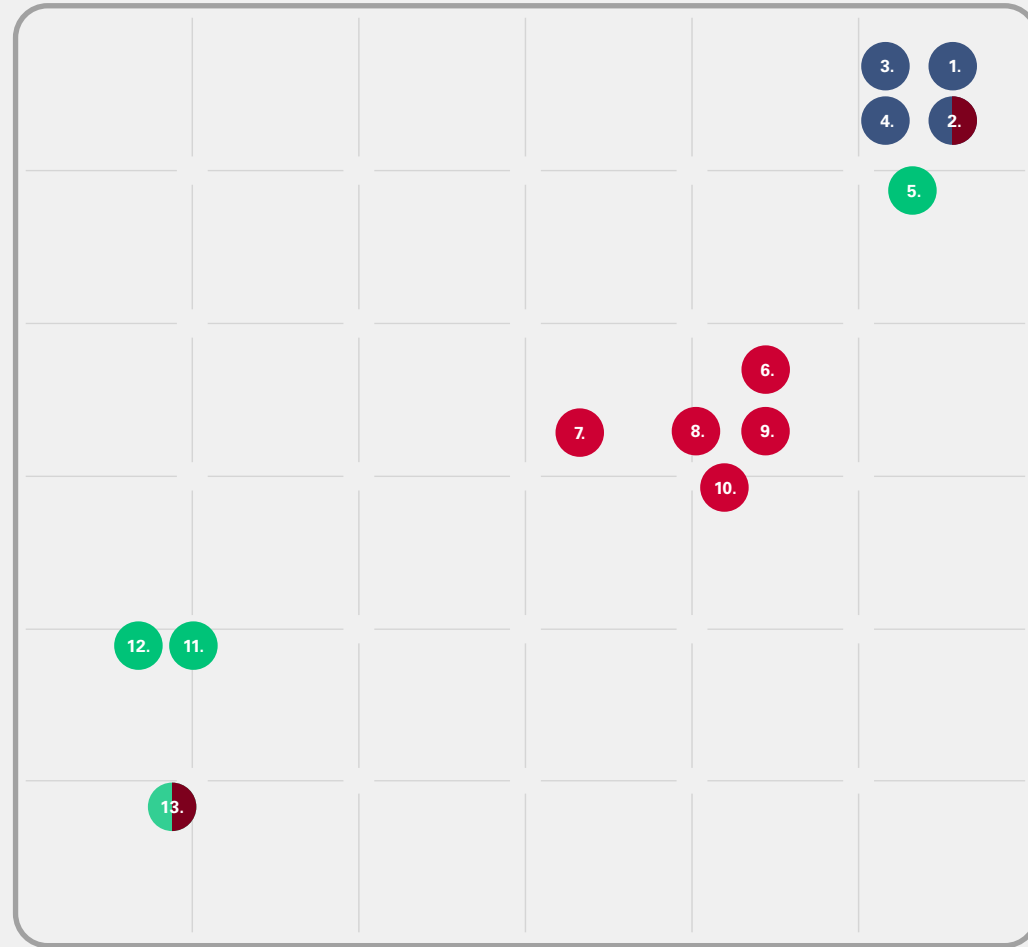
In the workshop series, we determined how significant various impacts are for establishing our most important sustainability topics. Here, we applied the proven logical method of reconciling the conflict between their relevance for our stakeholders and the environment and their relevance for us. We discussed the sustainability topics in depth and also evaluated the relevant impacts within our individual value creation steps in order to create further bases for evaluation and definition, and to anchor the impacts in more detail throughout the Company at an early stage. From now on, we strategically align our sustainability management with the following agreed and prioritized key sustainability topics:

Materiality of Sustainability Topics

Relevance for Stakeholders/Nature

high

low



Relevance for Pfeiffer Vacuum

low

high

- Environment
- Governance
- Employees
- Social

- Corporate Governance and Compliance
- Supply Chain and Human Rights
- Digitalization and Cybersecurity
- Quality Assurance and Product Safety
- Reduction of CO₂ (Scope 1–3)
- We Feeling and Life Purpose
- Labor Law Compliance
- Occupational Health and Safety
- Equality and Diversity
- Personnel Development and Working Conditions
- Reduction of Waste
- Reduction of Water Consumption
- Social Responsibility

1. Corporate Governance and Compliance

In all of the countries in which we operate, Pfeiffer Vacuum observes and respects the local laws and legal provisions as the legal basis for our economic activities. Moreover, for Pfeiffer Vacuum, responsible corporate governance also means a commitment to our Code of Conduct and to internationally recognized standards, such as the principles of the UN Global Compact. These serve as binding directives for all employees in our daily work and we also expect our suppliers and business partners to respect them.

2. Supply Chain and Human Rights

Pfeiffer Vacuum is committed to upholding basic human rights along the entire supply chain. As a Company with subsidiaries and production facilities in various parts of the world, we consider respect for human rights to be one of the fundamental preconditions for our economic activities. This is in line with our corporate goal of contributing to a sustainable society. For this reason, we reject all forms of child labor, forced and compulsory labor, modern slavery and human trafficking. Furthermore, we ensure that we work only with companies that comply with environmental legislation and uphold social standards, including appropriate living wages and regulated working hours.

3. Digitalization and Cybersecurity

Pfeiffer Vacuum is part of the so-called Fourth Industrial Revolution, which is transforming all aspects of business. "Digitalization" offers great opportunities and has a major impact on the way we do business. Information and digital assets are crucial and critical for our success. Thus, an innovative Company such as Pfeiffer Vacuum has a greatly increased risk arising from threats such as cyber crime and cyber espionage. Our goal is to minimize these risks as far as possible.

4. Quality Assurance and Product Safety

Pfeiffer Vacuum manufactures innovative high-tech products and sets standards in the industry – also with regard to quality and safety. Pfeiffer Vacuum applies high standards of safety, and stringent quality requirements in its product development and production. Our quality management system is based on internationally recognized standards and the applicable legal requirements and applies to the entire manufacturing process.

5. Reduction of CO₂ (Scope 1–3)

Pfeiffer Vacuum is actively committed to environmental and climate protection, and promotes the sustainable use of natural resources within the corporate group. This is why we constantly endeavor to reduce our environmental footprint and minimize our greenhouse gas emissions. We have committed ourselves to reduce our Scope 1- and 2 emissions to net zero by 2030.

6. We Feeling and Life Purpose

Employees want to be involved in making the world a better place. By working on future technologies that improve the supply of sustainable energy and strengthen the circular economy, we open opportunities for our employees to participate in conservation of the earth's climate.

7. Labor Law Compliance

For us, strict compliance with labor law is a basic prerequisite for the protection of our employees and a precondition for assuring their well-being and motivation. For us, as an internationally active Company, it is self-evident that we adhere to all laws, directives and other binding regulations in all the countries in which we operate.

8. Occupational Health and Safety

Our employees' health, occupational safety, and the condition of our buildings are essential factors for the creation of value in our corporate group, and an important prerequisite for ensuring that Pfeiffer Vacuum's products and services meet the high standards of quality and safety. As a responsible employer, Pfeiffer Vacuum strives to limit the number of accidents and days lost due to illness as far as possible.

This benefits not only every employee, but also our whole Group, because inadequate occupational health and safety can lead to costs resulting from days lost due to illness, and a reduction in production capacity and product quality. This is why we pursue the objective of ensuring a high-level of occupational health and safety.

9. Equality and Diversity

The collaboration of people from different cultures and nationalities is a matter of course for us as a globally operating group. We value the individuality, the different knowledge and skills and the different career aspirations and motivations of our employees as important drivers for our joint corporate performance. This diversity is what accounts for our innovation strength and continuous development. We hold to these values and safeguard them by raising awareness among our employees that they should never treat their colleagues differently from others because of their origin, age, gender, sexual orientation, disability or religious beliefs.

10. Personnel Development and Working Conditions

We want to align the needs and goals of our employees with the requirements of our Company. We promote this by offering personnel development and further training, and support our employees by providing suitable working and employment conditions and appropriate HR tools and formats.

11. Reduction of Waste

Waste contains valuable raw materials, which can be reused in production. At the same time, however, they can also present numerous environmental risks. This is why we place great importance on avoiding the generation of waste, or on recycling it to the greatest possible extent. We want to limit the loss of raw materials and minimize the negative environmental effects of our waste disposal.

12. Reduction of Water Consumption

The provision of drinking water represents a global challenge of increasing significance. Since our Company and our employees are dependent on water, sustainable water management is an important component of our environmental protection activities.

13. Social Responsibility

As a global Company, with facilities that are synergistically close to our customers, suppliers, employees, the local community and nature, we form a part of society. Through our joint interactions, we contribute to regional prosperity and nature conservation by means of our entrepreneurial and responsible actions, by providing good jobs and charitable sponsorships, and by cooperating with schools and universities.

OUR MOST IMPORTANT SUSTAINABILITY TOPICS

Sustainability topic	For further information please refer to	Contents	Development cf. 2021
1. Corporate Governance and Compliance	chapter "2.2 Responsible Corporate Governance"	all five aspects of "environmental", "employee", "social", "human rights" and "anti-corruption and bribery", in accordance with the German Commercial Code (Handelsgesetzbuch, HGB)	Our shareholders and customers, in particular, see this as a high priority in comparison to 2021. We, too, assigned an even higher importance to this aspect than in 2021 for us.
2. Supply Chain and Human Rights	chapter "3.2 Procurement/Supply Chain Management"	aspects of "environmental", "employee", "social", "human rights" and "anti-corruption and bribery", in accordance with the German Commercial Code (Handelsgesetzbuch, HGB)	Given the positive and potentially high risks in our global operations, our shareholders and customers, in particular, demand a higher prioritization here. As a joined target we assigned an even higher importance to this aspect than in 2021 for us.
3. Digitalization and Cybersecurity	chapter "2.2 Responsible Corporate Governance"	the "social" aspect in a broader sense, in accordance with the German Commercial Code (Handelsgesetzbuch, HGB)	Digitization and cyber security are essential for safeguarding the reputation especially for our customers as well as for ourselves and have increased in view of technological progress. Compared to 2021 the relevance of these aspects have increased accordingly.
4. Quality Assurance and Product Safety	chapter "3.3 Production"	aspects "environmental", "employee" and "social", in accordance with the German Commercial Code (Handelsgesetzbuch, HGB)	similar prioritization
5. Reduction of CO₂ (Scope 1–3)	This is a central theme that we anchor firmly in our entire value chain. It is referenced in all chapters of this Sustainability Report.	aspect "environmental", in accordance with the German Commercial Code (Handelsgesetzbuch, HGB)	Our contributions toward combating global warming are increasingly acknowledged by all stakeholders as ecologically necessary and also as a competitive advantage including growing requirements towards our products. The relevance for our stakeholders as well as for ourselves has increased very strongly.
6. We Feeling and Life Purpose	chapter "4. People, Culture and Values"	aspects "environmental", "employee", "social" and "human rights", in accordance with the German Commercial Code (Handelsgesetzbuch, HGB)	Our shareholders and employees, in particular, would like to further increase their involvement, participation and visibility in sustainable economic activities. This "We Feeling and Life Purpose", which is important for our own motivation as well as in terms of its ecological and social effects through our sustainable business practices, was included as a very important topic in 2022 and given a correspondingly high priority. Key aspects of the "Employer of Choice" theme from the previous year's report have been integrated here.

● Environment ● Governance ● Employees ● Social

OUR MOST IMPORTANT SUSTAINABILITY TOPICS

Sustainability topic	For further information please refer to	Contents	Development cf. 2021
7. Labor Law Compliance	chapter "4. People, Culture and Values"	aspects "employee", "social" and "human rights", in accordance with the German Commercial Code (Handelsgesetzbuch, HGB)	Shareholders, customers and employees added this topic as a unique selling point for us as a global employer. As responsible employer, we highly value this topic as well.
8. Occupational Health and Safety	chapter "4. People, Culture and Values"	aspects "employee" and "human rights", in accordance with the German Commercial Code (Handelsgesetzbuch, HGB)	Equal emphasis on the special importance for our employees and for our entire value chain
9. Equality and Diversity	chapter "4. People, Culture and Values"	aspects "employee", "social" and "human rights", in accordance with the German Commercial Code (Handelsgesetzbuch, HGB)	Our shareholders and employees prioritize the advantages of this issue more strongly as a unique selling point and prioritized this aspect significantly higher than in the previous year.
10. Personnel Development and Working Conditions	chapter "4. People, Culture and Values"	aspects "employee", "social" and "human rights", in accordance with the German Commercial Code (Handelsgesetzbuch, HGB)	The aspiration of shareholders and customers to promote intrinsic, individual motivation was focused on as a significant area for action. With "Personnel Development and Working Conditions" some essential aspects of the previous report's topics "Employer of Choice" and "Education & Training" have been summarized and given a higher priority by us and our employees.
11. Reduction of Waste	chapter "3.3 Production" and "3.6 Recycling"	aspect "environmental", in accordance with the German Commercial Code (Handelsgesetzbuch, HGB)	Due to the very strong prioritization of the topic "Reduction of CO ₂ " and its implications also for our material efficiency, we attach less importance to the reduction of waste as a separate field of action compared to 2021. It has been extracted from being a sub-aspect of the 2021 "Resource Efficiency," into a key topic.
12. Reduction of Water	chapter "3.3 Production"	aspect "environmental", in accordance with the German Commercial Code (Handelsgesetzbuch, HGB)	As a sub-aspect of the "Resource Efficiency" topic reported as essential in 2021, it has less relevance as an independent field of action for us as a Company that does not belong to water-intensive industries.
13. Social Responsibility	chapter "4. People, Culture and Values"	aspects "environmental", "social" and "human rights", in accordance with the German Commercial Code (Handelsgesetzbuch, HGB)	With regard to interactions with the regional communities in which we operate, the high level of importance of our role there was rated as essential and has newly been identified as essential in 2022 by our stakeholders and ourselves.

● Environment
 ● Governance
 ● Employees
 ● Social

The essential sustainability topics comprising these general topics as well as those defined specifically for our individual value creation steps form the basis for the further determination, review, prioritization and implementation of targeted measures aimed at fulfilling, to the best possible extent, the sustainability topic requirements that arise from this materiality analysis as strategic goals. In this report, the ways in which we achieve this are presented within the context of our value creation steps, as are our further measures and project plans for achieving additional targets in the coming years.

From 2023 onwards, we will continue to communicate our sustainability strategy to our employees through various communication measures in order to further raise awareness of the need for ecological and social improvements and to explain our sustainability strategy, so that every employee, at every Pfeiffer Vacuum workplace, can get involved and contribute to sustainable transformation in our joint economic activities. Moreover, in line with our sustainability strategy, we will continue to look for potential ecological/social improvements throughout the Company, in order to develop further regulations for worldwide integration in our processes.

To further validate these foundations of our sustainability strategy, we will continue to engage with key stakeholders in 2023 in order to check the materiality/correctness of our strategy.

In addition to indexing the GRI indicators/topics, we have also incorporated into the GRI Content Index (see from page 206 ff.) all the descriptions of our contributions to the UN Sustainable Development Goals (SDGs) and to the ten principles of the UN Global Compact on a topic-specific basis (cf. chapter "5. Sustainability Indicators"). In this GRI Content Index, we systematically cross-reference all the relevant, topic-specific text passages in this report.

2.2 Responsible Corporate Governance

Sustainable management is a continuous, strategic goal and commitment, which we use as a competitive advantage and at the same time for the common good of our stakeholders and for the protection of nature. We ensure the congruence of our global business activities through the organization of our corporate governance.

We have implemented processes to support compliance with locally applicable laws and legal regulations in the countries in which we operate. In addition, we want to fulfill our role as a responsibly reflective Company in a large, global network with many employees, suppliers, local communities and our many customers in different markets to contribute to a responsible economy.

To this end, we have defined binding, future-oriented standards for our business partners as well as for ourselves and combined them in our Code of Conduct and our Code of Conduct for suppliers. Our globally applicable standards are based on international sustainability principles such as the UN Global Compact, UN Human Rights, the provisions of

the International Labour Organization (ILO), the achievement of the UN Sustainable Development Goals (SDGs) and of the Science Based Target Initiative (SBTi), in order to powerfully use our levers for ecological/social economy transformation. Our common standards serve as binding and at the same time motivating, meaningful guidelines for all employees in our daily business and we demand that our suppliers implement them in the same way.

In our business relationships, we ensure, among other things, that we do not permit forced or child labor, modern slavery, human trafficking, or any form of discrimination. We also aim to guarantee occupational safety and ensure fair working conditions and freedom of association. We prohibit corruption and bribery and we demand fair competition and material compliance. We refer to local law when dealing with employees; for example, appropriate living wages must be paid in accordance with the applicable laws, and regulated working hours must be observed. We also require our suppliers to take appropriate measures to ensure health and safety in the workplace. When working on our properties, our safety and accident prevention regulations are additionally binding. Furthermore, we take care that we only work with companies that comply with country-specific environmental and social laws and standards.

We demand that our suppliers comply with our standards of sustainable management – and in turn demand the same of their suppliers. If there is a suspicion of a violation, the supplier is obliged to clarify the facts and take improvement measures (see chapter “3.2 Procurement/Supply Chain Management”). If necessary, we adapt our standards of conduct, which we align with our traditional values, the expectations of our stakeholders, and the requirements of nature, to economic, social and ecological developments.

To protect nature and the health of our employees and customers, as well as to improve the quality of our products, we set further concrete standards to exclude hazardous substances and materials from our products:

Substances of Concern

As a globally active industrial Company, we comply with the legal, industry- and customer-specific regulations on substance bans and declaration obligations of the countries in which we operate, such as the EU chemicals regulation REACH or the US regulation Toxic Substances Control Act (TSCA). We centrally monitor all the resulting requirements, which are also constantly changing or being supplemented, and initiate the necessary adjustment measures in the event of changes.

At Pfeiffer Vacuum, Substances of Concern (SoC) are all substances in production aids or products that are classified as prohibited or declarable by law or our customer agree-

ments. We are continuously working to identify and exclude SoC, to use better substitutes and to avoid hazardous substances. In new developments, we refrain from using substances on the EU REACH candidate list – if technically possible. Our binding internal guidelines define the requirements for dealing with SoC during our product development process. If SoC cannot be avoided in the production process for technical reasons, risk assessments are carried out to ensure the safe handling of these substances by applying appropriate protective measures.

Conflict Minerals

In accordance with our ethical standards, we have installed processes to ensure that our products do not contain conflict minerals. The raw materials tantalum, tin, tungsten and gold (3TG) are considered conflict minerals in our industry if the mining and trading of these raw materials contributes to the financing or other support of armed groups in the Democratic Republic of Congo or its neighboring countries. These conflicts threaten human rights and the protection and development of local communities.

Since Pfeiffer Vacuum does not come under scope of the Conflict Mineral Regulation of the European Union but most of our US customers have to provide official reports due to US listing, we decided to implement the, in our opinion, stricter US regulation: The Wall Street Reform Act “Dodd-Frank Act” (section 1502) from 2010 states that companies listed in the US must report to the stock exchange authorities every year about the use of so-called conflict minerals.

In order to exclude conflict minerals from all our products, and although we are not US listed, we report yearly in accordance with the US Conflict Minerals Reporting Template (CMRT). To this end, we authorized a highly specialized partner to collect all the necessary data from our suppliers. We have also set up a software-based material compliance platform to help us manage relevant supply chain data, including conflict minerals data, in Pfeiffer Vacuum GmbH, Pfeiffer Vacuum SAS, Dreebit GmbH, Pfeiffer Vacuum Valves & Engineering Inc., and Pfeiffer Vacuum Components & Solutions GmbH. In 2023 we will onboard all remaining development and production sites to this software-based material compliance platform.

If the absence of conflict minerals cannot be confirmed, we oblige our suppliers to ensure conflict-material-free deliveries. If necessary, conflict-free components are sourced from other suppliers or other materials are used. During the entire reporting year, we did not become aware of any negative cases. Thus far, we have not had to exclude any of our carefully selected suppliers for using conflict minerals. Since the Russian war of aggression, we have started to exclude Russian smelters as our suppliers.

In addition, we continue to use only raw materials from smelters certified in accordance with the Responsible Minerals Initiative (RMI) at all production sites. Certified smelters mine ores and minerals in compliance with defined environmental and social standards. Due diligence activities remain ongoing in the form of supplier engagement and education to encourage more accurate reporting and the

progressive elimination of risks from upstream actors identified in the supply chain as per the OECD Due Diligence Guidance. Therefore, Pfeiffer Vacuum Technology AG takes part in the common smelter outreach initiative of our partner service provider.

Our subsidiaries in Asslar, Göttingen, Dresden, Yreka and Annecy provide their customers with the official company level Conflict Minerals Reporting Template (Version 6.22), showing detailed information on the countries of all smelters and refineries used.

Risk Management

We developed our risk management system to include identified relevant impacts of our Company on the environment and society. Our group-wide risk management system identifies risks in the economic as well as in the legal, ecological and social spheres at all levels of the organization and mitigates them with appropriate measures.

Taking into account the risk-mitigating measures, we have not revealed any serious negative effects on the environment, the local societies or our governance in connection with our business activities, our business relationships, or our products and services in the year under review. For detailed information on the procedures of our risk management system, please see the chapter "Risk and Opportunities Report", page 97.

In 2023, we will analyze potential disruptive events in order to avert or mitigate them with appropriate measures so that we can safeguard the continuity of our business processes (Business Continuity Management).

Organizational Structure

Various committees ensure the continuous development of sustainability at Pfeiffer Vacuum and responsible corporate governance, which is reflected overall in economic success. At the Management Board level, Chief Executive Officer Dr. Britta Giesen is responsible for this area. She is also a member of the Global CSR Board, which comprises executives from all corporate divisions. This Board discusses all important stakeholder expectations as well as developments in nature and issues of sustainable business, defines the Company's sustainability strategy, and sets the roadmap for the implementation of goals and action plans. The work of the Global CSR Board is coordinated by the Global Head of CSR, who reports directly to the CEO.

The Global Head of CSR is responsible for organizing and communicating CSR-related issues across the Group. Our General Managers and Regional Managers play a significant role in accelerating the sustainability roadmap (see chapter "2.1 Sustainability Strategy"). They are responsible for the implementation of CSR measures in the respective regions, position the further developments and innovations with our customers, and control the correct collection and evaluation of the data of their sustainability performance measurements.

Since this reporting year, sustainability performance measurement has been carried out with software that has been introduced throughout the Group.

Compliance Management

The Head of Global Compliance, member of the CSR Board, and her international team are responsible for the group-wide implementation and management of Pfeiffer Vacuum's compliance program. The team consists of several employees who are responsible for risk management, anti-corruption, anti-trust, anti-money-laundering, export control, data protection and information security in the various regions. The Head of Global Compliance reports directly to the Chief Executive Officer. The Supervisory Board is informed about current developments and topics on a regular basis and in situations where the need arises.

In addition to implementing our Group-wide compliance program, the principal tasks of the compliance organization include the formalized assessment of risks, including the annual review of the internal control system. By means of internal audits, international subsidiaries are regularly evaluated and reviewed with respect to particularly risk-exposed issues.

One focus is on anti-corruption and anti-trust measures. In the worldwide markets in which Pfeiffer Vacuum operates, there are risks of corruption and anti-trust violations due to the widely ramified supply chains and global business relationships. These could distort market conditions, impede fair competition and have repercussions on our customers and business partners as well as on our economic performance and our trusted reputation as a whole.

In order to assure continuous accessibility of the relevant documents on compliance issues for our colleagues, we implemented further measures in the course of 2022. We extended our intranet presence on additional topics such as export control, data protection and information security. As the latter is of crucial importance to us, we have further developed and published new policies especially in the field of information security.

We fulfil our tax obligations in solidarity, to co-finance the common good, and in a law-abiding and transparent manner in accordance with all national and/or international tax and levy obligations that we have defined in our Tax Compliance. Basic information on our Tax Compliance and on the fulfilment of our reporting obligations, along with a breakdown of our worldwide tax revenue by region can be found on our website.

Our Code of Conduct – Basis for Compliance

The central element of our compliance management is our Code of Conduct. As a code of commitment it serves as the fundamental basis for the daily actions of all employees and corporate bodies worldwide, in their dealings with each other and with all stakeholders, including customers, business partners and the public. The Code of Conduct is available in all corporate languages through our corporate websites in the various countries as well as for our employees on our Group-wide intranet.

To ensure the implementation of our different compliance requirements in our various business departments, we further developed our online-based training concept during the year; this addresses the concerns of the respective employee groups.

Currently, around 91 % of our employees worldwide have completed the Code of Conduct training and have confirmed their understanding and mandatory application in writing. We will continue to increase awareness of and motivation to apply the Code of Conduct so that all new employees receive training on it. In 2022, 1,142 employees (previous year: 299) received this training. In addition, we conducted training on our specific compliance guidelines – anti-trust law, anti-corruption, information security, data protection, export control and anti-money laundering- for the relevant employees. In 2022, a total of 7,772 employees participated (previous year: 683).

Grievance Mechanism

For the prevention and clarification of possible violations, we use a Group-wide whistleblowing online system for the anonymous reporting of violations. The whistleblowing system, which is certified according to data protection guidelines, is available to both employees and external stakeholders to report violations of our Code of Conduct completely anonymously to the Compliance Department. There, the reports are recorded and allegations are investigated. We react with appropriate remedial measures together with the respective technically responsible divisions and the persons affected by the case, if this is indicated.

In 2022 – as in the previous year – we did not observe any cases of bribery, but three cases (2021: two cases, 2020: one case) of harassment, which resulted in immediate and consistent remedial action, but otherwise had no further impact on Pfeiffer Vacuum.

Digitalization & Cybersecurity

Pfeiffer Vacuum is part of the so-called 4th Industrial Revolution, which is transforming all aspects of business. “Digitalization” offers great opportunities and has a major impact on the way we do business. Information as well as digital assets are crucial and critical for our success. Thus, an innovative Company such as Pfeiffer Vacuum has a greatly increased risk arising from threats such as cyber crime and cyber espionage. Our goal is to minimize these risks as far as possible. A systematic management approach has been implemented for this purpose, including local contacts for each subsidiary, diverse Group policies, and training for all employees.

The Chief Information Security Officer is responsible for the Group-wide definition, coordination and implementation of appropriate information security measures. In order to implement information security globally, the Chief Information Security Officer is supported by an Information Security Officer and an Information Security Team. Additional support is provided by the Information Security Coordinators in every legal entity and the Global Process Owners who are responsible for the global information security risks and therefore must ensure that organizational and technical measures are effective within their area of responsibility.

Implementing an Information Security Management System (ISMS) is a crucial success factor in ensuring the availability of information and IT systems and to protect them from unauthorized access and unauthorized changes.

In addition, our Computer Security Incident Response Team (CSIRT) works to protect against threats and act as first responders to computer security incidents, e.g. against cyberattacks or technical malfunctions. It provides proactive and reactive services to protect the digital assets of the Pfeiffer Vacuum Group.

To ensure the availability of our IT systems and to protect them from unauthorized access and changes, Pfeiffer Vacuum implemented an ISMS in accordance with ISO 27001. Its various tools ensure the effective protection of digital assets, information and prototypes against different kinds of attacks such as disclosure/leak, misappropriation, destruction, manipulation, or misuse. In this way, we also ensure the availability of our production systems and a functioning supply chain management at all times.

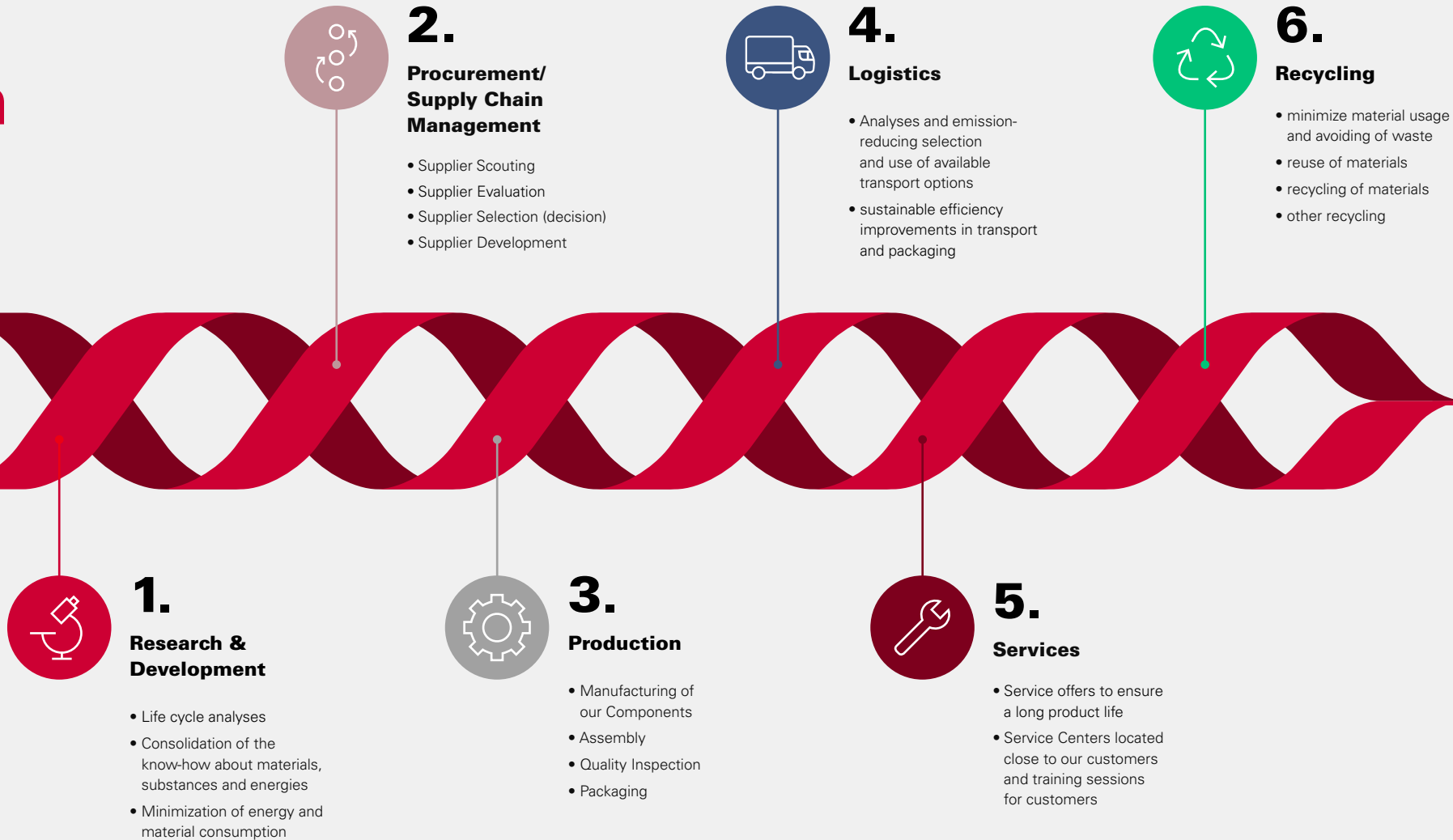
Having conducted a global security risk assessment, we installed a group-wide Information Security Policy as well as special regulations according to the specific requirements of a country, company or department. All Information Security Coordinators were trained in their functions. One of our major targets is to roll out the ISMS throughout the Group by the end of 2023. As the implementation of the ISMS progresses, compliance with the policies and defined controls are reviewed and audited. The aim is to integrate information security into all value creation processes, to enhance the ISMS with a continuous improvement process, and to address risks according to the risk management methodology. Another central building block will be business continuity management, which, together with the ISMS, will have a positive impact on Pfeiffer Vacuum's resilience.

3. OUR VALUE CREATION

As a growing, global producer of vacuum pumps, we have a great responsibility to apply the values we have established in Asslar and Middle Hesse/Germany worldwide. With our products and services – with our entire value chain - we contribute to the necessary worldwide nature-conserving measures and social transformation of economic activity.

Every material we use is extracted from nature, with the labor of people and with social and ecological impacts. So every product and service has its footprint, with impacts for people and nature. We work to continuously improve our products and services in order to reduce our footprint and our impact on people and nature, and we see this as an essential challenge, which we are also increasingly using as a market factor. After all, sustainable management is not only ecologically necessary and socially required, but is increasingly becoming a demand factor worldwide. In our worldwide relations, we are committed to contributing, through our business activities, to the sustainable transformation of economic activity.

Our Value Chain



Our sustainability contributions are present throughout our entire value chain, and we use them for our own ongoing sustainable transformation as well as for the increasingly demanded benefit for our customers, employees and suppliers. We make our sustainability performance transparent throughout the following cycle of our value creation processes:

1. Research & Development
2. Procurement/Supply Chain Management
3. Production and Environmental Impacts
4. Logistics
5. Services
6. Recycling

We analyze our impacts on and contributions to our employees, society and nature in the following chapters.

3.1 Research & Development

Our goal is to align our product development holistically with the needs of our customers in their various industries and to anticipate ecological and social developments in the process. Because with holistically better, sustainable products and services, we make our contribution to a future-proof economy.

Our research and development are managed across the Group by our Global Technology Organization, which reports to the CTO. Decisive for our product developments, beyond the requirements of our customers, are holistic life-cycle analyses of our major product groups. This is because all Pfeiffer Vacuum products have an impact on people and nature, in all phases of their life cycle – from development through to production and recycling.

We also bring together the accumulated expertise about the materials, substances and energies we use by means of investigations, studies on trends, and forecasts for new product developments in our research and development. With our process instructions, we use this in our worldwide production processes for continuous further improvements in the entire product life cycle. This begins with the product definition, which must be considered for as many aspects of the development phase as possible, and continues through the implementation phase, in series production, and through the utilization phase (here the low power consumption is particularly important).

Our continuous increase in material efficiency leads to a lower environmental impact with regard to aluminum, for example, as aluminum extraction or production requires

large amounts of energy and produces waste materials that are harmful to the environment. We will continue to work on reducing the use of this raw material in our products, as we have done with HiPace Neo, which uses approximately 15 % less material than its predecessor.

It is our corporate philosophy to consider quality as an inherent feature of our production. Our products enjoy a high level of trust among our customers because they are reliable and safe, and are also innovative and nature-friendly – throughout their entire life cycle. It is not only our ecological, social and qualitative standards that are appreciated by our customers, however, but also our services and training (see chapter “3.5 Services”). All this forms the basis for a trusting and long-term cooperation with our customers.

In the coming years, we will continue to intensively develop nature-friendly products, in particular by increasing energy efficiency and reducing the use of materials or using more nature-friendly materials. After all, efficiency and durability are the hallmarks of the quality of our products and thus also ensure the necessary protection of nature.

We are currently pushing ahead with the comprehensive digitalization of our products in order to monitor the performance of our products in customer applications much more precisely. We are using the findings from this for further process and product improvements, so that we can make even more material and energy savings along the life cycle.

In 2022, we introduced a number of new products with further sustainable improvements, e.g.:

Smart Vane

Compact, higher power density and efficient drive.

Saves energy: 15 % less power consumption at typical working pressure compared to competition products, with a further reduction possible by using a variable speed drive.

Saves material: Longer maintenance intervals and fewer wear parts, and 5 maintenance operations compared to 10 for a service life of 10 years.

ATP 1603

This turbopump has been specially developed to replace energy-inefficient vacuum pump technologies in various applications.

MVP (membrane vacuum pumps)

MVP DC line to replace AC models. Typical power consumption in ultimate vacuum of 20 W compared to 120 W for AC models (15 l/min class).

HeptaDry screw pump

Created to replace the old Okta G roots systems; typical power consumption in ultimate vacuum of 60 kW compared to 132 kW for the coating vacuum system.

SplitFlow TMP (300 – 800 l/s class)

Introduction of alternative raw material for SplitFlow TMP: up to 25 % savings regarding material, waste and machining.

3.2 Procurement/Supply Chain Management

With a common understanding of ecologically necessary and ethically sustainable action, we want to integrate our suppliers in our search for answers to the global ecological and social challenges of our time.

Stable and sustainable supply chains are fundamental for us as a globally competitive Company – and make a key contribution to nature conservation and economic prosperity. Our supply chain represents the largest share of the ESG impact that our Company has. By commissioning the sustainability-compliant suppliers we have selected, we want to contribute to sustainable transformation in the home countries of our suppliers. This is because by transferring our sustainability standards to our global suppliers, we ensure the improvement of social and ecological management in our supplier network. This is an essential lever for improving business sustainability globally. The improvements made in accordance with our sustainability standards, described in the chapter “Compliance”, relate to nature, climate protection and social improvements, which not only improve the footprint of our products, but are also intended to anchor sustainable business practices in the companies of our supplier network and improve them overall. This reduces harmful social and environmental impacts, especially in countries with lower sustainability standards.

This also has an indirect impact on the protection and development of communities associated with local suppliers. With our main production sites, which are located in industrialized countries, we assess the probability of any violation of our social and environmental standards established there as rather low, due to the legal requirements applicable in these cases. Where such legal requirements are not in place, especially in countries in Asia and South America, we monitor environmental and working conditions – as we do everywhere – to ensure that social, environmental and legal standards are met. We also ensure that there is no impact on indigenous peoples in our production sites.

Failure to comply with these standards or with country-specific laws and regulations could result in penalties and reputational impacts contrary to our stance, not to mention economic impacts, including supplier default risks that affect our production and result in a reduction in sales and customer satisfaction. Our internal business processes may also be affected, with cost increases. To mitigate these risks, we select our potential suppliers with social and environmental risks in mind and through the continuous review and improvement of our sustainable supplier management. In order to achieve our “Supply Chain Excellence”, we rely on close cooperation and partnership with our suppliers, so that together we can manufacture the most sustainable products for our customers.

Pfeiffer Vacuum maintains supplier relationships with around 1,200 suppliers of direct materials, in around 58 countries worldwide. We maintain local and regional supplier relationships worldwide in order to minimize transport emissions and strengthen the local economy at the locations where we operate. Therefore, we generally prefer to use local suppliers, as far as this is compatible with our qualitative and economic demands.

The Head of Global Supply Chain and the Head of Global Procurement report directly to the Management Board. The Head of Global Procurement and the Head of Global Quality & EHS jointly coordinate internal and external requirements, create Company-wide standards, and assure compliance in close coordination with the Global Head of Compliance and the Global Head of CSR. All purchasing managers are responsible for compliance with our Group-wide sustainability standards. They report to the Global Head of Procurement and, for environmental issues, to the Head of Global Occupational Health & Safety & EHS.

Based on our group-wide guidelines, we use supply-chain-related risk management to assure structured sustainability performance throughout our supply chain. We have defined procedures for implementing our global responsibility in our supply chains in a central guideline as a uniform set of rules, which are reflected in our Code of Conduct for Suppliers, in our Code of Conduct for all our employees, and in our internal training.

Subsequently, internal targets based on selected key figures are agreed, to ensure stability and sustainability in our supply chains. In this context, our group-wide guidelines regulate

the passing on of our sustainability requirements to suppliers. Furthermore, they define the standards for internal reporting. We check the suppliers' compliance with the requirements on the basis of our risk management software. In addition, our purchasing teams record the processing of complaints and indications of potential violations. If breaches of the sustainability requirements were to be identified, the purchasing teams would consistently take remedial action.

In 2022, we conducted 125 web-based trainings as well as classroom trainings for the education and training of our purchasing employees worldwide. Participation in sustainability training is mandatory for these employees. In addition to a general overview of topics, this training includes, in particular, information on our supplier requirements and the procedure of our supplier evaluations and developments. We also sensitize our suppliers to the development and optimization of their sustainable business practices. To this end, we will provide our suppliers with all the information regarding our sustainability requirements and country-specific developments via our supplier platform/website.

We organize the assurance of our sustainable standards in our supply chain and in our commissioning of recycling companies (see chapter "3.6 Recycling") based on the following management system:

3.2.1 Supplier Scouting

We select potential suppliers in accordance with the Group-wide requirements of our sustainability standards. These stipulate that all new suppliers must be screened before we enter into a business relationship.

Since 2019, suppliers have had to confirm compliance with our Group-wide sustainability standards by signing the Supplier Code of Conduct when concluding a contract. Our Supplier Code of Conduct is available on our website in seven languages. The Pfeiffer Vacuum Supplier Code of Conduct is to be signed by all new suppliers and new business partners and we also ask our existing business partners to commit to it and to work with us on this basis.

3.2.2 Supplier Evaluation

To ensure compliance with our social and environmental standards, we strive for transparency. With our contractual principles as the basis of our collaboration, we ensure a high level of social and environmental development and compliance in our supplier network.

New contracts are awarded if there is sufficient proof that our sustainability requirements are not breached. Existing suppliers only receive new orders if they are sufficiently classified. If an active supplier is found to be behaving in an unlawful manner or fails to ensure sufficient sustainability performance, the purchasing manager, in collaboration with the Compliance Officer, will initiate appropriate measures. These measures can range from discussions with the business partner to the renunciation of the business relationship.

Before entering into a new business relationship, we conduct a business partner review to identify critical areas, using risk assessment software that has been introduced at Group and worldwide level. Changes in the risk assessment and risk situation are immediately communicated to all relevant units of the Group. In this way, Group-wide

supply chains and suppliers can be promptly checked for risks, and risk mitigation measures can be initiated to avoid damages as early as possible.

To regularly assess the sustainability performance of our suppliers, we include sustainability audits with supplementary questionnaires for suppliers, and we further standardized our on-site reviews in 2022. Our purchasing units monitor compliance with environmental and social standards by conducting quality audits at the premises of the individual suppliers. The evaluations are based on international quality and environmental management systems such as ISO 9001. Suppliers who are not manufacturers do not necessarily have to introduce an environmental management system, but they should comply with the corresponding regulations.

For further comprehensive monitoring of social and ecological management at our suppliers' premises, we give their employees, business partners and other third parties the opportunity to anonymously report any cases of suspected violations of our sustainability standards to us via our whistleblower system. The results of all supplier reports and evaluations are documented in our supplier database. We record individual potential improvements and their progress in action plans at our suppliers' premises. Our compliance department investigates all reports immediately and, depending on the report, involves the purchasing department with the relevant technical experts and whoever else is deemed able to contribute to clarification and ensuring the necessary improvements.

The performance of our supplier evaluations continued to be affected by the global corona virus pandemic in 2022. The findings from the various assessments show that our suppliers meet our standards, with minimal deviations. In some places, improvements were necessary, which we have requested. We did not identify any significant actual or potential negative environmental or social impacts with any of our main suppliers. We did not have to terminate any of our supplier relationships due to unresolved misconduct. The careful selection and long-standing relationship of trust with many of our suppliers has proven its worth.

3.2.3 Supplier Selection (decision)

When selecting new suppliers, we focus on partnerships that will enable us to maintain our competitive strength in the long term – with the benefits of sustainable added value: contributions for people and nature. We prioritize the most sustainable and economically efficient suppliers for the development of our products and services as preferred suppliers.

3.2.4 Supplier Development

We want to convince our suppliers that sustainable management brings collective benefits and that added value results in joint competitive advantages as the demand for these factors grows. We address the sustainability requirements in our collaboration contracts with our existing suppliers and in new contracts with potential suppliers, at purchasing events, trade fairs and other events. In 2022, the focus was on the activities of suppliers with regard to climate protection and the EU Supply Chain Act, which will apply to us in 2024, and for which we are well prepared.

Regarding the topic of climate protection, which is given high priority by us and our customers, it is our goal to systematically reduce CO₂ emissions, also in our supply chain, in order to achieve our ambitious climate goals (see chapter "3.7 Environmental Impacts"). Therefore, we are supporting our business partners in their CO₂ reduction activities on our way to joint climate protection.

In addition, we continue to demand that our suppliers commit to our supplier code of conduct using a platform where the supplier automatically confirms its compliance with the code. In view of the new legislation of the German Supply Chain Due Diligence Act, we will review the application of the new requirements at our Company and, if necessary, integrate new expansion stages into our processes by 2024.

Manufacturing Processes



3.3 Production

Our sustainable business practices and our products and services reflect our achievements for our customers, people and nature. We work diligently to reduce emissions, optimize materials, and increase efficiency. The effects of this are felt by our customers through our products.

We make the anchoring of our sustainability performance in our products transparent in the standards of our production processes:

1. Manufacturing of our Components

For the manufacturing processes for our various products, we set clear targets to take into account resource and environmental protection aspects, and especially to constantly increase energy efficiency and material efficiency and thus conserve nature, while at the same time reducing costs in many cases. For example, in product development we focus from the earliest possible design stages on ensuring savings in the materials and resources used. Although technical features and physical properties are decisive design criteria, for new developments we also focus on space requirements and power consumption, as well as on intelligent drive technologies that enable significant power reductions during the use phase.

To ensure that the raw materials and intermediate products we use are handled in the most environmentally friendly way possible, we take into account the legal requirements for hazardous substances, e.g. the EU chemicals regulation REACH and the RoHS Directive on the restriction of the use of certain hazardous substances in electrical equipment. Our Material Compliance department, which was set up in 2021, is responsible for global compliance. The focus is mainly on keeping the standards and material compliance up to date and ensuring their application throughout our Group; this applies to our own production as well as to the supply chain (see chapter “3.2 Procurement/Supply Chain Management”) and recycling (see chapter “3.6 Recycling”).

2. Assembly

In several product lines, we are already pursuing the strategy of local production. This concerns the procurement of raw materials and components, processing, and the assembly and testing of the products. In this way, we offer our customers short distances and fast coordination worldwide, while at the same time keeping transport routes short and emissions from our logistics services as low as possible (see chapter “3.4 Logistics”).

In 2022, we introduced dimmable LEDs at the workstations in Asslar. For 2023, we will continue to roll out the system of energy-saving assembly workstations at the other locations.

3. Quality Inspection

Intensive quality testing and control of every Pfeiffer Vacuum product is an integral part of our brand promise to manufacture top-quality products and ensure their efficient and long-lasting use by our customers. All pumps are subjected to a 100 % test procedure, which not only checks the functions but also the high quality and service life requirements. Each product is tested with a test sequence that is closely related to the subsequent application. Detailed evaluation methodologies enable extremely high reliability.

4. Packaging

For all the various materials and substances in our products as well as for our packaging, we determine the degree of their immanent harmfulness to nature as well as their recyclability. In our material recycling, we determine all measures by which our main materials such as steel, aluminum and plastics are used by us. As far as possible, we ensure that they are kept in closed cycles in order to reduce the use of materials newly extracted from nature as far as possible, and to avoid the human rights risks of raw material extraction.

We also use as little material as possible in transport packaging. We use recycled and recyclable materials and continue to reduce the proportion of plastics and to reduce the use of plastics that cannot be recycled. In addition, we use reusable packaging, wherever possible, at our worldwide locations and are constantly looking for further improvements (see the chapter “3.6 Recycling”).

We make our management system for measuring our emissions and for their ongoing minimization transparent

in chapter “3.7 Environmental Impacts”. We explain our impacts and our management system for achieving our social standards in the chapters “2.2 Responsible Corporate Governance”, “3.2 Procurement/Supply Chain Management” and “4. People, Culture and Values”.

Buildings and Future Factory

Our most relevant buildings are the production sites for our products. To keep energy-intensive distances as short as possible, we locate them close to our customers. Not only the energy efficiency of our production, heating and electrification, but also material and process efficiency are the constant goals for our sustainable management.

With our “Future Factory” development program, we are modernizing our buildings, technologies and work processes, paying particular attention to energy efficiency in view of our goal of climate neutrality. In this process, our regional project teams are supported by external energy system planners, so that we can exploit any potential CO₂ savings in our energy systems.

In 2022, we conducted energy assessments at the Asslar (Germany) and Asan (South Korea) sites. For 2023, we are planning further analyses in Annecy (France), Ho Chi Minh City (Vietnam) and Yreka (USA). So far, we have replaced conventional light sources with LEDs at the Asslar, Annecy, Indianapolis, Yreka and Asian locations, as a first small step.

In Asslar, we clad over 800 m² of external facade with heat-insulating sandwich elements. The replacement of a cleaning system here reduced our water consumption by about 50 %. We connected our buildings in Annecy to the com-

munity's biomass power plant, and in Asan we also reduced our electricity consumption by 10 % for compressed air generation by modernizing the facilities.

In order to consolidate and further intensify our ecological and economic plant and process optimizations, we have carried out trainings on the subject of lean manufacturing at our main sites in Asslar and Annecy, with a focus on material and energy efficiency as well as material flow optimization. We plan to establish these trainings at further locations in the future.

3.4 Logistics

For the delivery of our preliminary products, for the transport of our vacuum pumps to our customers, and for our services and training, we depend on currently available transport options. In our selection and use of the transport options available in the modern infrastructure, we strive to keep our emissions as low as possible.

CO₂ reduction in our logistics

In order to reduce CO₂ emissions in our logistics overall, we have four main levers at our disposal:

1. the global concentration of our production sites close to our customers (see chapter "3.3 Production – Buildings and Future Factory"),
2. the regional selection of our suppliers at our production sites (see chapter "3.2 Procurement/Supply Chain Management"),
3. the reduction of our air transport, in particular, and
4. the bundling of our freight.

We had to make more air freight shipments from 2020 to 2022 due to the impact of the corona virus pandemic and global supply shortages. However, it is our clear goal to reduce these more significantly. We will increase more sustainable transportation modes such as railway and sea shipment. To achieve this goal, we started to systematically record our global CO₂ emissions in detail in 2022 in order to further utilize strong saving paths on the basis of this analysis. In 2023, we plan to further replace our air and truck freight by expanding our sea shipment by another 10 %.

In 2023, we want to set up our 5th lever: the increase of packing density in order to require less packaging material, storage space and transport capacities, and thus to cause less CO₂ emissions. From 2023 onwards, we want to increasingly optimize our packaging specifications in order to

use "lighter" packaging that saves material and weight in an environmentally friendly way, thus reducing CO₂ emissions while still keeping our products safe.

At our main sites, our employees in the logistics and shipping departments have specific expertise to implement our goals in the logistics processes. The same environmentally friendly and efficiency-enhancing requirements that we apply to our own logistics also apply to our suppliers and logistics service providers. As described in our supplier management system, for our future transport needs we wish to use only suppliers and logistics service providers who meet our requirements. We also demand that suppliers make improvements in their sustainability performance before they are selected (see chapter "3.2 Procurement/Supply Chain Management"). From 2023 onwards, we want to further safeguard this by applying our procedures for compliance with our sustainability standards to our logistics service providers as well.

3.5 Services

A very large lever to prevent CO₂ from being produced in the first place is the achievement of high product quality, for a long life cycle – with the effect of improving the products' lifetime, financial performance, energy efficiency and material efficiency.

With our various services, from technical support right through to the modernization of complex machines, we continue to keep our products in constant operation together

with our customers. Our services range from service hot-lines to online advisors, online spare parts finders/spare parts services, utility films for customer self service, and even the modernization of complete systems (retrofit). Our after sales service is one of the largest and most utilized in our industry, with more than 300 technicians and engineers worldwide.

Our qualified Service Centers are located close to our customers to avoid unnecessary shipments. This reduces not only the CO₂ emissions but also the turnaround time for service. In our globally distributed Service Centers, close to our customers, we also store major spare parts for a period of seven to 20 years (depending on the product) after the end of production, to ensure a long lifetime and reduce any instances of early retirement of our products.

In addition to these Service Centers, Pfeiffer Vacuum has established a network of Field Service Engineers to provide fast service at the customer's site. This could be, for example, in a semiconductor factory, at a university or at the manufacturing site of a pharmaceutical customer. Our first hit repair rate (yield) is above 98 %.

Our training sessions for customers and for our own service technicians and engineers focus on understanding our products and how to use them in the best possible way with optimal operating parameters, how to use stand-by options, and how to select ideal maintenance intervals to save cost for our customers. In addition to the existing standard trainings, we have established special online trainings to reduce the amount of international travel. We continue to work on our 2021 target of making ourselves the leading provider of customer training in the vacuum market by the end of 2023.

3.6 Recycling

All materials are taken from nature. Waste is produced when materials are not used or no longer used. For a minimal use of resources, the circular economy is the concept that is effective for the future. The recycling pyramid defines the hierarchy of material and substance use:

- **avoidance of waste**
- **reuse**
(repair or further use by other users)
- **recycling**
(material recovery for new product manufacture)
- **further recovery**
(e.g. incineration for energy generation, composting) and, only as a last resort
- **landfill**
(storage of waste)

With our circular economy strategy, we strive to protect nature through our products, components and packaging throughout their entire life cycles – from procurement and production to use, maintenance/repair and return, reuse and recycling. To extend the life of the materials we use, we are creating more and more cycles within our Company, or closing them outside our Company with established recycling processes. In this way, we also simultaneously reduce the CO₂ footprints of our products (especially Scope 3), because the recycling of materials reduces material extraction from nature and often cuts out energy consuming production steps.

The circular economy strategy serves as a planning concept for our entire value chain. In 2023, we will analyze further potential in the various business units to bring more material flows “into the loop.” On this basis, the business departments can analyze and- depending on the application and technical feasibility – decide which approach is best suited for our products in order to further avoid negative environmental impacts and human rights risks. We have already introduced numerous processes that follow the principle of the circular economy:

- Even in the early stages of development of our products, we take care to continuously reduce the material input by using blanks whose contour is as close as possible to the production contour. An example of this is the HiPace80 neo, which uses around 15 % less material than its predecessor.
- In material recycling, we keep steel, aluminum and plastics in closed cycles to the maximum possible extent.
- We also strive for continuous improvement in the maintenance/repair and reuse of existing products. To this end, we are taking on board further innovative ideas from our employees and customers, especially with regard to the sorting of materials during the dismantling of our products.
- Reusable packaging is more resource-efficient, generates less waste, and improves the CO₂ balance with each life cycle compared to single-use packaging. That is why we supply our internal and external suppliers with reusable empties and continuously optimize our empties management.

3.7 Environmental Impacts

Global warming, the extinction of species, over population, nature pollution and water pollution are the greatest ecological challenges of the 21st century, because their uncontrolled progress threatens the foundations of life and our civilization. The increasing release of CO₂ from the combustion of fossil fuels moves to center stage, here, as the main driver of global warming and harmful consequential effects on the entire ecosystem. Reducing the demand for energy along the entire value chain and replacing fossil fuels with sustainable energy sources are potential solutions for making an essential contribution to the preservation of our planet. The goals of sustainable management include, first and foremost, the correct selection and efficient use of materials, substances and energies.

As human impacts on nature continue, they have the potential to affect our business activities as well. Floods, storms and heat waves in many countries are now having a direct impact on employees, suppliers and transport routes, even in temperate latitudes. Some materials, and especially fossil fuels, are becoming scarcer and/or more expensive.

Conversely, our business activities also have negative effects on nature, which we want to reduce as far as possible according to our technical, natural and economic possibilities. Particularly in view of the complex interrelationships between the extraction of materials from nature and the manufacture and transport of all the materials, substances and energies that we procure and use, we value our task of ensuring ecologically efficient management as being particularly important in keeping our footprint and that of our products as small as possible. With our environmental management, we make our contribution to nature conservation and to the continuous improvement and competitive strength of our products through the ever more efficient and economical use of the right materials, substances and energies. In this way, we also increase the sustainable added value of our customers.

Our Handling of Materials, Substances and Energies

In the circular economy strategy that is fundamental to our environmental management, we systematize our approach to an ecologically efficient business. With our circular economy strategy, we systematize the analyses and continuous learning with regard to the use of materials, substances and energy in order to optimize our processes and products, step by step, so that we can minimize their total impact.

To this end, we generally apply the concept of the so-called recycling hierarchy:

1. Minimize material usage
nature-friendly selection and sourcing of our materials, substances and energies; minimization of weight and volume, above-average product lifetimes, etc.
2. Reuse or renew materials, substances and energies
high reusability or reintroduction into the production process
3. Recycle materials, substances and also energies in our own production
recycle to the maximum, e.g., heat from production, recycle materials that cannot be reused or renewed
4. Recycle with external recycling specialists
e.g. return to foundries
5. Avoid landfill/deposition of waste material

We follow this system throughout our entire value chain (cf. chapters 3.1 to 3.6), firstly as a logical step to establish ecological optimization more and more in all of our Company's processes and secondly to anchor this knowledge as motivation for each employee in his or her respective areas of work and even in their private sphere.

We support the United Nations climate protection agreement adopted in Paris in 2015 and, through our corporate activities, make concrete contributions to the government-determined goal of limiting global warming to as close to 1.5 degrees Celsius as possible. To give visibility to our contributions in the important field of action against global warming, we joined the Science Based Targets Initiative (SBTi) in 2022. With this step, we publicly committed ourselves to support the goals of the Paris Climate Agreement through concrete actions. We will work closely with SBTi to implement its science-based emission reduction before 2050. We aim to reduce our Scope 1 and Scope 2 CO₂ emissions by 2030 to such an extent that our production will have net zero emissions from then on. In addition, we will continue to analyze the causes of the Scope 3 CO₂ emissions for which we are jointly responsible so that we can move ever closer to net zero CO₂ emissions, with our entire value chain if possible, following a similar path to that of the SBTi transformation.

As with all other sustainability issues, we organize the management of our environmental impacts strategically for our entire Company in our CSR Board (see chapter “2.2 Responsible Corporate Government”). In order to manage the respective risks and opportunities, the results of the environmental risk assessments are also analyzed in the individual business departments and translated into concrete plans for our value creation steps by our specialist units. From the CSR Board, the Head of Global CSR and the Head of Global EHS (Environment, Health, Safety) coordinate the strategies in the environmental area, along with the corresponding management systems and measures, and support their implementation in all business areas. Since 2022, our decision-making basis for this has included a

comprehensive database based on our global, continuous and standardized measurement of our material, substance and energy flows.

The continuous improvement of our nature-friendly management at the Annecy, Asslar and Asan production sites is systematized by the certification processes in accordance with the ISO 14001 environmental management standard. We will introduce ISO 14001 certification at all the main production sites by 2025. In 2022, the sites in Vietnam and Romania received ISO 14001 certification. In order to continuously find, analyze and exploit further potential energy savings, and at the same time reduce our emissions and energy costs, we are already using ISO 50001 certifications in Asslar and Annecy to systematize our energy management. New findings and proven ecological improvements from individual sites are passed on to all our sites, worldwide.

As a global technology Company, we also comply with the wide range of environmental laws and regulations in force in the various countries in which we operate. The experts in the relevant specialist areas ensure that all standards and norms are complied with (see chapter “2.2 Responsible Corporate Governance”). For the planning, construction/procurement and renovation/further development of buildings, plants and manufacturing facilities, we apply mandatory environmental criteria worldwide, for example with regard to material and energy efficiency, the use of renewable energies, and the use of water (see chapter “3.3 Production – Buildings and Future Factory”).

From 2023 onwards, we want to train our employees to be able to implement CO₂ reduction in their respective areas and further develop their methodological and technical expertise to ensure and expand safe and environmentally optimized work processes. We will continue to familiarize our employees with the relevant global and country-specific regulations and standards, and to enable them to meet the specific environmental, economic and social requirements of their sites as well as our Group targets. We also plan to further strengthen awareness and information on environmental protection topics via our internal media from 2023 onwards, in order to give all employees the knowledge that will help them contribute with sustainable behavior. At the same time, we are in constant exchange with science, politics, non-governmental organizations, suppliers and customers in order to be able to further increase the effectiveness of our emission reduction action plans.

In line with our sustainability strategy, our environmental management focuses on the special levers for reducing CO₂. In our general circular economy strategy, we address this special goal, in particular, in our four levers:

1. increasing energy efficiency
2. increasing material efficiency
3. increasing process efficiency, and
4. expanding renewable energy generation.

For our production processes we use various raw materials (mainly stainless steel, aluminum, gray cast iron, paper/cardboard and plastics), semi-finished products, intermediate products, energy and water. We measure our impact on nature with reference to the energy flows, substances, materials and water in our Company.

Energies and CO₂ emissions

Manufacturing of vacuum pumps is not an energy-intensive industry. But energy efficiency and reductions in emissions have always brought opportunities for innovation and competitive advantage, for our Company, too. And they strengthen our motivation to do better, ever more sustainable business. When assessing climate-related issues and suitable improvement measures, we also include the use phase of our products, which also ensures reductions in emissions in the various applications of our customers.

At the same time, we see the opportunities that arise from our use of emission-reducing technology as a competitive advantage. This is reflected in increased customer preferences for products with low energy consumption. Increasing attention is also being paid to our production processes and the environmentally-friendly use of materials. For example, we are receiving more and more inquiries about the proportion of green electricity used, and the recyclability of materials. We are increasingly meeting these sustainability-oriented challenges through targeted research and development.

The primary energy sources used at Pfeiffer Vacuum are electricity and gas, primarily for operating our machinery and equipment. These are followed by gas for heat generation (natural gas and liquid gas), for heating our buildings. The processes in our value chain are constantly analyzed with regard to technological and process-related developments in order to further optimize them in terms of emission reduction.

The following table shows our consumption of natural gas, fuels, electricity, steam, heating and cooling at all locations. A total of 69,381 MWh was consumed in the reporting year (previous year¹: 68,388 MWh). In 2022, we extended the recording of all energy-related data to our entire Company.

¹ Following the expansion of energy data to include all our corporate sites in this report, we have adjusted the previous year's figure accordingly to the previous year's report.

We are therefore restarting the series of figures for comparison with our previous reports at this point.

Our global sales increased by 29 % from 2021 to 2022. Despite this, we were able to reduce our energy consumption by 21 % from 96.13 MWh per € 1 million in sales worldwide to 75.68 MWh per € 1 million in sales.

At the Asslar and Annecy sites, we regularly have our energy management systems certified in accordance with ISO 50001 and/or our environmental management systems certified in accordance with ISO 14001. For the coming years, we are planning the global standardization and further implementation of certified management systems.

ENERGY CONSUMPTION²

	2022			2021		
	Europe	Asia	USA	Europe	Asia	USA
Consumption category	in MWh	in MWh	in MWh	in MWh	in MWh	in MWh
Natural gas	10,425	110	2,765	13,355	100	1,435
Company car diesel	2,113	302	583	1,904	282	256
Company car gasoline	256	276	1,002	168	330	991
Electricity consumption	28,418	14,165	4,888	27,088	12,928	4,955
Steam, heat or cold consumption	4,078	0	0	4,499	0	96
Total energy consumption	45,290	14,853	9,238	47,014	13,640	7,733

² Missing invoice data of Pfeiffer Vacuum GmbH estimated.

CO₂e EMISSIONS

	2022			2021			Total	
	Europe	Asia	USA	Europe	Asia	USA	2022	2021
	in t	in t	in t	in t	in t	in t	in t	in t
Emissions all sites¹								
Scope 1 GHG emissions ²	2,758.6	174.9	697.8	3,276.2	181.2	443.3	3,631.2	3,900.7
thereof CO ₂ emissions ²	2,746.7	173.4	693.7	3,264.1	179.7	440.8	3,613.8	3,884.5
thereof CH ₄ emissions ²	3.1	0.3	1.1	3.8	0.3	0.9	4.5	5.0
thereof N ₂ O emissions ²	8.8	1.3	2.9	8.3	1.2	1.6	13.0	11.2
Scope 2 GHG emissions (location based)	1,728.5	7,091.4	1,721.2	2,450.8	6,509.4	1,761.4	10,541.1	10,721.6
thereof CO ₂ emissions	1,718.2	7,061.4	1,712.9	2,440.3	6,482.3	1,752.8	10,492.5	10,675.4
thereof CH ₄ emissions	4.7	3.2	1.0	5.1	2.9	1.1	8.8	9.0
thereof N ₂ O emissions	5.7	26.8	7.3	5.5	24.2	7.5	39.8	37.2
Scope 3 GHG emissions ³	2,742.8	1,749.8	2,831.1	1,977.0	1,601.6	1,559.4	7,323.7	5,138.0
thereof fuel- and energy-related activities	1,790.7	1,290.8	2,450.1	1,788.0	1,190.6	1,255.7	5,531.6	4,234.3
thereof business travel	952.2	459.0	381.0	189.0	411.1	303.6	1,792.1	903.7
Total emissions⁴	7,229.9	9,016.0	5,250.0	7,704.0	8,292.3	3,764.1	21,496.0	19,760.3
thereof CO ₂ emissions ⁵	4,464.9	7,234.8	2,406.6	5,704.3	6,662.0	2,193.6	14,106.3	14,559.9
thereof CH ₄ emissions ⁵	7.7	3.4	2.1	8.8	3.2	2.0	13.2	14.0
thereof N ₂ O emissions ⁵	14.5	28.0	10.2	13.8	25.5	9.1	52.8	48.4
Total CO₂e emissions²	7,229.9	9,016.0	5,250.0	7,704.0	8,292.3	3,764.1	21,496.0	19,760.3

¹ Emissions are calculated according to the operational control approach. Sources for emission factors are DEFRA 2020 for all factors apart from emissions from location-based electricity, which are calculated via IEA 2020.

² Direct fugitive emissions are not included.

³ Scope 3 emissions include: Fuel- and energy-related activities that are not included in the categories direct emissions and indirect energy; and business travel. All other 13 categories are excluded.

⁴ Including Scope 3 emissions.

⁵ Excluding Scope 3 emissions.

Local energy officers at our sites coordinate all measures to meet local legal requirements. In energy circle meetings, energy consumption is jointly analyzed by the Facility Management, Purchasing and Engineering departments and specific measures to improve energy efficiency are identified.

Responsibility for energy management lies within the management of each individual site, with technical support from the Head of Global EHS. In 2022, we continued the installation of energy consumption meters with measurement systems in order to analyze and control energy demand at the Annecy and Asslar sites. The metering systems are equipped with sensors for diagnostics and predictive maintenance. In the next few years, we will have implemented these metering systems throughout our Group.

When purchasing new equipment, we require our suppliers to provide evidence of installed capacity, power consumption and energy class, and we always strive to increase energy efficiency by using the most efficient and fit-for-purpose production equipment.

We achieved a significant reduction in CO₂ emissions in 2022 by purchasing electricity from renewable energy sources at our sites in Asslar, Dresden, Göttingen, Annecy and Indianapolis. In Annecy, we obtain our entire energy supply from a biomass power plant. In addition, we use the waste heat from production there by feeding it into the district heating circuit of the city of Annecy. In 2023, we will equip our warehouses in neighboring Chaumontet with a heat pump. In Asslar and Dresden, we use solar panels and a combined heat and power system. For our sites in Asan, Korea, Ho Chi Minh City, Vietnam and America, we are already looking for ways to generate renewable energy ourselves.

The emissions of our global energy consumption – direct emissions from the operation of our plants and buildings, indirect emissions from purchased energy, and emissions from the upstream and downstream supply chain¹ – are presented in the following table as CO₂ equivalents (CO₂e) in metric tons (t) in accordance with the requirements of the internationally applicable Greenhouse Gas Protocol (GHG Protocol). In 2022, the emissions intensity of the production sites (emissions per € 1 million in sales) was 23.45 t CO₂e (previous year: 25.62 t CO₂e).

In addition, we will introduce certified management systems according to ISO 14001 at our main sites by 2025 and certified management systems according to ISO 50001 at all production sites by 2030. We will also continue to review existing energy supply contracts with regard to their share of renewable energy, and prioritize the conclusion of ecologically positive contracts.

Materials, Substances and Waste Treatment

We pursue the goal of ensuring that all the materials and substances we use are kept for as long as possible in the product life cycle or in the circular economy as a whole. We avoid waste by increasing our material efficiency – by continuously developing our production methods and optimizing our processes. However, despite our careful approach, production- and transport-related waste is generated at our production sites during the processing of the materials and substances we use, and typical household waste is produced at our service and administration sites. Waste also continues to include materials and substances that we want to safeguard for as long as possible in the circular economy or in recycling, so that new materials and substances do not have to be extracted from nature (see chapter “3.6 Recycling”).

In our Company-wide waste management regulations, we ensure compliance with country-specific legal requirements for the handling of materials and substances and their proper transport and disposal. Responsibility for the proper and legally compliant sorting and transfer of waste to local disposal companies or recyclers is clearly defined at all production sites.

In 2022, we further systematized our global waste management and introduced uniform reporting on all waste. Our largest waste fractions are aluminum, iron and stainless steel, from the production of our vacuum pumps. The total amount of waste in the fiscal year 2022² was 7,121 t (previous year: 5,518 t). By separating and collecting the various

¹ Scope 3 emissions include emissions from categories 3 “Fuel- and energy-related activities” and 6 “Business travel”. All other 13 categories are not included.

² excluding our facilities in Saclay, Caponago, Paderno Dugano, Secunderabad, Yongin-Si, Hwasung-Si, Gyeonggi-do, Kulim, Nor-Cal Products Singapore

waste fractions by type as much as possible, we maximize recycling. We pass on the separated waste to professional recycling companies for material recycling.

Waste that cannot be materially recycled in the processes of the disposal companies or recycling plants is disposed of in accordance with the statutory disposal standards and the municipal disposal options. As a waste producer, we are responsible for our waste until final disposal. We therefore select our service providers with the utmost care and contractually stipulate the conditions for disposal. We carry out random audits to check that waste is being disposed of properly. We will continue to introduce certified management systems according to ISO 14001 at our main sites by 2025.

Water and Recycling

The supply of drinking water is increasingly becoming a global challenge due to global warming, but also due to overuse and pollution. Other risks include the resulting regional shortage of raw materials and foodstuffs, which, altogether, may result in changes in the regulatory framework. To protect nature and water, to comply with the relevant laws and standards in the countries in which we operate, and to safeguard resources for our Company, we take precautions to protect water. At our Asan site, the water that is used for cleaning processes is recycled through an efficient wastewater treatment system and then reused. Responsibility for our global water management lies with the Head of Global EHS. We measure our water consumption at all production sites, compile the

measurements in a global controlling tool, manage them in coordination with the Global Manager, and implement general and site-specific measures to reduce water requirements.

We use water in manufacturing and cleaning processes as a coolant, as process water, in sanitary facilities and as drinking water. The total water withdrawal in the fiscal year 2022¹ was 88,213 m³ (previous year: 99,609 m³). This decrease is mainly due to our sites in Asslar and Ho Chi Minh City. We gave all wastewater (88,213 m³)² to municipal disposal companies in accordance with local laws and possibilities. With the issue of adequate global water availability and supply in mind, we plan to further analyze and reduce our Group-wide water consumption in detail.

At our Annecy site, the water used in the cleaning processes is treated and reused by an efficient wastewater recycling system. In addition, we have built a wastewater treatment plant in Asan, where we treat all wastewater from the site. At all the other sites, we discharge the wastewater into the municipal disposal or recycling systems in accordance with the respective local laws and standards of the local authorities. Overall, we will continue to monitor and to conduct comprehensive analyses of the Group-wide water consumption across our Group.

4. PEOPLE, CULTURE AND VALUES

We want to create working conditions for our employees in which they are valued and can apply their potential and ambition and thus contribute to the long-term success of the Company as members of our value chain, and as part of our community.

Our employees are the key to our success in a highly dynamic environment and are therefore at the heart of our strategy. We continue to develop our corporate culture in a targeted manner and enable our employees to acquire new competencies so that they can meet their own goals and help us achieve our corporate goals. At the same time, it is important for us to attract new talent for innovative growth fields and sustainable implementations in our highly competitive international markets.

The Pfeiffer Vacuum values are the foundation of our entrepreneurial actions. They serve as central and reliable points of orientation for our employees – irrespective of the specific challenges we face at present and in the future. Our mission statement for employees unites our common, diverse strengths in our strategic orientation.

¹ excluding locations Saclay, Pfeiffer Vacuum Schweiz AG, Catania, Caponago, Paderno Dugano, Scandinavia AB, Yongin-Si, Hwasung-Si, Nor-Cal Products Asia Pacific, SVIC

² Different calculation method to GRI: As not all measurement data is available for all wastewater worldwide, we set the quantities of used water equal to water disposed of.

We want to harmonize the needs and goals of our employees with the requirements of our Company. To this end, we contribute to personal development and training, and support our employees with our working and employment conditions as well as with appropriate HR tools and formats.

Our People and Culture Organization

All core issues that affect our employees are managed by the Global HR Team consisting of members of the HR department in Annecy and Asslar. The local HR managers are responsible for regional support and implementation. To enable seamless cooperation between all regions, flat hierarchies are indispensable and therefore already part of everyday practice in our Group. We have revised the management organization in terms of reporting lines and established a matrix organization in order to empower functional managers across all Pfeiffer Vacuum sites around the globe.

In order to gain a picture of our employees' level of satisfaction, we have been conducting regular Group-wide employee surveys since 2020. In 2022, 2,658 employees (vs. 1,580 in 2020) participated in the survey. After the survey was closed, a dedicated team at each site investigated the results and defined one to two dedicated actions to be taken in 2023.

The results confirmed that employees working together at Pfeiffer Vacuum have a high level of commitment and satisfaction. However, the employees wanted this to be communicated more clearly to the outside world so that we can further improve our role as an employer of choice. In order to derive the greatest possible benefit from the employee survey, the Managing Directors and the Human Resources Manager of each unit were given the task of evaluating the results of the survey in detail for their respective areas and deriving improvement actions from them. Over the course of the current year, smaller surveys have been carried out in various departments in relation to specific topics in order to follow up on the impact of targeted improvements.

Our Team Structure

At the end of 2022, a total of 3,935 people were employed at Pfeiffer Vacuum. This represents an increase of 14.2 % compared to the previous year (3,444 employees) and is

essentially linked to our strong corporate growth. Beyond this, we also currently need further personnel so that we can continue on our planned growth path.

In the reporting year, the employee fluctuation rate varied depending on the Company's geographical location. Due to the corona virus pandemic, our units in Korea and Yreka had an increased turnover of their workforce. In Germany, a large internal transfer from one legal unit to another legal unit took place.

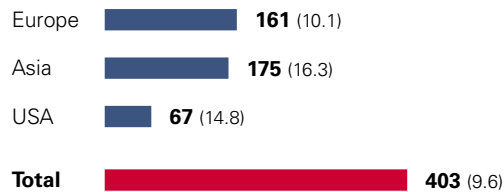
The most common type of workers who are not regular or full time employees are temporary workers. They mainly perform tasks in warehousing, logistics, manufacturing/processing and assembly. We report their headcounts and FTE in the same way as for regular or full time employees. In the countries where we employ temporary workers, we ensure the best possible protection by law by working with large, well-known temporary-employment agencies.

REGIONAL DISTRIBUTION OF EMPLOYEES

	2022		2021		2020	
	Number	in %	Number	in %	Number	in %
Europe	2,414	62	2,104	61	2,048	62
Asia	1,074	27	939	27	884	27
USA	447	11	401	12	377	11
Total	3,935	100	3,444	100	3,309	100

FLUCTUATION RATE BY REGION

Number of employees (in %)



Figures excluding internal change

This includes complying with local laws and treating temporary and part-time workers as employees, for example in terms of access to social services and equal pay.

Diversity & Equal Opportunities

The collaboration of people from different cultures and nationalities is a matter of course for us as a globally operating group. Consequently, cooperation between people of different cultures and nationalities is commonplace at Pfeiffer Vacuum. We value the individuality, the different knowledge and skills and the different career aspirations and motivations of our employees as important drivers for our joint corporate performance. These differences and different drives are what make up our innovation strength and continuous development. We keep these values con-

sistently and safeguard them by raising awareness among our employees that they should not treat their colleagues differently from others because of their origin, age, gender, sexual orientation, disability or religious beliefs. Pfeiffer Vacuum has been a member of the “Diversity Charter” initiative launched by the German federal government for several years. It is an expression of a fundamental commitment to fairness and the appreciation of the people in our companies. In order to further raise awareness of intercultural differences, diversity and compliance among our colleagues, we again held numerous training sessions in 2022, where participants were able to learn about our Code of Conduct, covering key aspects of the broad area of diversity (see chapter “2.2 Responsible Corporate Governance”). In 2022, there were again no incidents of discrimination among our employees that were reported to the HR or Compliance department.

Of our 3,935 employees, 729 are female, 3,206 are male, and we have no employees who indicated the third gender. This means that women make up 19 % of the total workforce (previous year: 18 %).

Since October 2017, the chair of the Supervisory Board of Pfeiffer Vacuum has been held by a woman and the percentage of women is 33 %. The percentage of women in the Management Board is 50%. This puts Pfeiffer Vacuum in second place out of 160 surveyed companies listed on the Frankfurt Stock Exchange with a balanced board of directors, mentioned in the most recent AllBright Foundation report of September 2022. And many of our global leadership positions below board level are also occupied by women.

In 2022 a promotion campaign for attracting female employees/diversity in the technology industry was launched. Portraits of individual Pfeiffer Vacuum employees will be released throughout 2023.

Under French law, every company with more than 50 employees must publish an annual index reflecting the status of women’s pay compared to men. For 2022, the score is 93/100, which places PV SAS among the best employers. For all locations, we strive for equal pay for men and women, even if there are no local laws requiring this. Our general and our starting salary gradings are based on position, experience, skills and knowledge and are not related to gender.

Our practice is to promote employees from the local organizations to senior management positions. In 20 subsidiaries out of 23, our senior management is recruited from the local community. However, we sometimes cover interim positions with expats to ensure business continuity and the internal transfer of expertise.

Education and Training

In order to continuously secure our corporate strength – the development of high-quality and sustainably optimized technology products – our human resources strategy focuses not only on recruiting highly qualified colleagues, but also on targeted further training in view of the evolving demands of our customers as well as global ecological and social developments. This continuous, motivated learning in the different areas of expertise of our employees ensures the quality and competitive strength of our Company as well as of each

individual, regardless of age, area of operation, length of service, or career level.

Despite certain restrictions due to our extensive hygiene and safety measures during the corona virus pandemic, we were able to continue our qualification measures in 2022. These were partly based on newly developed concepts, and in some cases we conducted more online training. We continued the mandatory information events on safety and health at work at all locations and integrated them into the onboarding training. In addition, we expanded the corporate e-learning material in the area of compliance to include aspects of global information security, competition, anti-trust law, anti-corruption and bribery law, and export control.

PROFESSIONAL QUALIFICATIONS OF THE WORKFORCE

	2022	2021	2020
	Number	Number	Number
Graduates of universities, colleges, and universities of applied sciences	1,571	1,364	1,246
Employees with professional training	1,746	1,524	1,454
Employees without professional training	521	471	344
Apprentices	97	85	82
Total	3,935	3,444	3,124

Our employees also benefited from training on the use of social media, on our corporate brand strategy and, at our headquarters in Asslar, also from e-learning regarding soft and leadership skills for middle and senior management.

Our goal is to offer every employee at least one full-day training course at our in-house Pfeiffer Vacuum Academy or with external providers. In this connection, our new e-learning portal, whose roll-out was completed in 2022, offers all employees greater flexibility and opportunities for conducting various training courses. We established a collaboration with a popular business network to provide our staff with increased access to digital learning materials, to improve our learning culture, and to develop our collective intelligence. In 2022, we started with a set of 1,200 licenses for all the managers of our subsidiaries, so that they could allow their employees take part in this program and realize their potential in personnel development. In 2023, we will continue to pursue the goal of setting the industry benchmark for average training costs per employee.

At our Annecy site, demonstrations were offered to schools on the subject of vacuum and its applications, with the aim of inspiring young pupils to become interested in the world of physics. Plant tours for school classes, accompanied by their teachers, were also offered again in 2022. In addition, some of our engineers hold tutorials on technical and operational topics at local universities.

Vocational Training for Young Professionals

Pfeiffer Vacuum provides training for a variety of professions in commerce, production and warehouse logistics, at various locations. Due to the corona virus pandemic, we paused our exchange programs for trainees and students in 2022. In 2022, Pfeiffer Vacuum employs a total of 97 trainees worldwide (previous year: 85).

RELATIVE DISTRIBUTION OF THE PROFESSIONAL QUALIFICATIONS OF THE WORKFORCE

Number (in %)

1,746 (44 %)

Employees with professional training

97 (3 %)

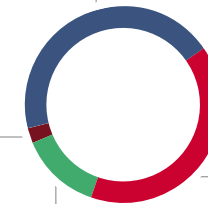
Apprentices

521 (13 %)

Employees without professional training

1,571 (40 %)

Graduates of universities, colleges, and universities of applied sciences



In Germany, Pfeiffer Vacuum participates in the “Studium-Plus” project, a dual course of study at the Technical University of Central Hesse, and works in partnership with the Georg-August University of Göttingen in the area of in-company training. In this way, we aim to secure our next generation of skilled employees in industrial engineering, mechanical engineering, and business informatics. Since 2022, Pfeiffer Vacuum has been a partner of the national “plus-MINT” program, in which outstandingly talented students in the fields of mathematics, computer science, natural sciences and technology are promoted at selected boarding schools. In France, in partnership with the local university association Alptitude, we support students in their preparation for their entrance exams to the best universities.

In China, we have established internship programs in partnership with the two leading universities in vacuum technologies, Northeastern University and Hefei University of Technology, to attract young talent to these advanced technologies and introduce them to our Company. Similarly, in Singapore, we are making efforts to offer internships at universities. In Malaysia, we already employ interns from technical institutions.

In Romania, we are training new CNC operators at our site in a dual training program in partnership with the local university Liceul Tehnologic Aurel Vlaicu.

All our new employees complete an introductory course in the basic principles of vacuum technology, while sales and service employees receive advanced training courses on products and services. Depending on the location and demand, the courses are offered in German, English or French. In the reporting year, the number of training measures and training participants declined, as we only offered courses to a limited extent in 2022 due to the ongoing pandemic.

We support and promote the transfer of knowledge between employees in all areas of our Company. In 2021, for example, a dedicated project team, composed of members of HR and R&D, worked on the design of an expert career path in addition to the “classic” manager path. With this approach, we aim to validate a process for identifying internal experts who can evolve with a personalized development plan and clearly established responsibilities. Pfeiffer Vacuum aims to retain its technical talent and offer them a path to a successful career within the Group. In 2022, this program was started, and the first experts were named and set on this path.

GROUP-WIDE KEY FIGURES FOR TRAINING AND EDUCATION

	2022	2021	2020
	Number	Number	Number
Training measures	7,900	3,900	5,300
thereof on-site trainings	800	800	900
E-learning	6,700	2,700	4,000
thereof external and other trainings	400	400	400
Training participants	17,600	11,800	20,200

The figures are rounded to the nearest hundred.

In 2023, we will continue to offer our employees the opportunity to participate in trainings based on innovative digital tools and video conferencing. This should support face-to-face training without endangering health and safety in ongoing times of the corona virus pandemic.

Corporate Management and Personnel Development

We strive to combine the individual motivations of our employees and the goals of our Company in our various departments in order to promote the personal development of each individual employee. To this end, we hold regular talks between managers and their employees, once a year. In these talks, we align our corporate goals with the motivational and career goals of our employees and our managers in order to find a common path to success, and to identify development potential that we can use to support our employees in achieving both corporate goals and individual career goals. We use this personnel development system for our managers as well as for all employees.

Our goal is to have at least one talk per year with each employee. In 2023, we already plan to hold face-to-face meetings with up to 80 % of our workforce.

Due to their prominent role, we pay particular attention to the continuous training and development of our current and future managers who wish to develop themselves further. Course contents include management techniques, employee leadership, and training in rhetorical skills.

In 2022, we continued to work on our leadership culture, which focuses on key competencies and values that define leadership at Pfeiffer Vacuum. In Asslar, in 2022, we proceeded with the series of online small group workshops to work on various leadership topics, and continued the leadership program for managers introduced in 2021, which has already been successfully completed by seven groups of 8 to 10 managers. In addition, we developed a training program to promote role clarity for our managers in production, and trained our managers and key users in good change-management practices in a one-day intensive training course in Asslar. This was to prepare them for the move to the future factory (see chapter "3.3 Production – Buildings and Future Factory") and other topics.

Since 2020, we have been using a 360-degree feedback system for our top management, including the members of the Management Board, General Managers and Regional Managers worldwide. In 2021, we expanded this 360-degree feedback opportunity to the next level of leadership in France, the US, Germany, China and Vietnam. Extended individual coaching was offered to the leaders to implement what was learned from the feedback. In 2022, managers from various departments spent more than 600 hours in digital coaching.

The feedback we received showed us that we are on the right track, so we will continue and expand our activities in 2023.

Our training program for our Human Resources business partners at our four main sites enables participants to gain experience on how to run a leadership assessment center

by themselves. In 2022, first assessments were held with our internal HR staff and we expect to extend the practice in 2023.

As a globally operating Company, Pfeiffer Vacuum has a Global Mobility Guideline since 2021. In accordance with this, we assign certain employees to a foreign subsidiary for a period of more than six months. The mutual learning process is at the forefront of these long-term projects – and they have proven themselves repeatedly. In 2022, the first employees made use of this.

Remuneration and Incentive Schemes

Pfeiffer Vacuum's incentive scheme differs according to local conditions and customs. In addition to personal KPIs and Company results, personal development is also included in the bonus scheme. Depending on the location, there are additional bonus, incentive or employee participation schemes.

We include our ESG targets in bonus schemes for executive levels and further developed ESG targets in 2022. All managers have employee satisfaction targets, and all production managers have CO₂-reduction targets.

The pension scheme similarly varies according to the individual location. Apart from a purely public scheme in most European locations, the worldwide pension schemes include additional measures and payments into pension funds, the offer of a pension plan and direct insurance with the additional option of deferred compensation.

In Annecy, all employees are covered by the collective bargaining agreement of the metal industry. In Asslar, most of the workforce is covered by the metal industry collective bargaining agreement for the state of Hesse, and in Romania there is also a collective agreement in place. We do not pay less than any local minimum wage.

We strictly comply with the local law and collective bargaining agreements when it comes to informing our employees about operational changes. Furthermore, in the interest of our employees, we involve them as far as possible and inform them about organizational changes in advance of any statutory notice period.

Work-life Balance

To give our employees the freedom to develop their potential and shape their work-life balance, we offer them mobile and flexible working time models as well as models to reconcile their family responsibilities with their job even better. Naturally, we also grant parental leave in accordance with the applicable law at the respective place of work.

Now that the pandemic has subsided in some parts of the world, colleagues have slowly returned to their work places in the Group's offices. We have mastered the associated challenges well. This is also due to our Global Guideline for Mobile Working. The guideline grants all employees a total of eight days of mobile work per month, provided that this suits their daily work tasks and local working culture.

Moreover, parental leave is a common practice at Pfeiffer Vacuum. The duration of parental leave varies according to country regulations. In general, both men and women can take parental leave according to local regulations, and we have noticed that more and more men are taking parental leave.

Occupational Health and Safety

Health and physical integrity are the ultimate basic conditions for our corporate strength. Ensuring healthy working conditions for our employees is fundamental to us. We also make every effort to avoid accidents as far as possible in order to protect our employees. In the areas of production, service, administration and sales, we follow the specific occupational health and safety requirements at our main production sites in Germany, France, Romania, China, the Republic of Korea, Vietnam and the United States of America.

We manage occupational safety and health protection worldwide through our demanding occupational safety policy. We work continuously to identify all sources of danger in our processes, to analyze our employees' suggestions for improvement, and to implement them as specific safety measures that go well beyond the respective local, national and international legal requirements.

GROUP-WIDE KEY ACCIDENT FIGURES

Key indicators for occupational health and safety worldwide

	2022	2021 ¹	2020 ¹
LTI (Lost Time Injuries: Accidents requiring at least one day of absence)	25	43	46
LTIFR (Lost Time Injuries Frequency Rate: LTI per 1 million working hours)	3.30	6.16	6.98
Work-related deaths	0	0	0
FAR (Fatal Accident Rate: Frequency of fatalities in %)	0 %	0 %	0 %

¹ The previous year's figures have been adjusted presenting the total Group. Figures are given for the Group as a whole instead of selected sites.

Raising awareness among our employees that they should protect themselves is also key to ensuring improvement. To this end, we developed our "12 rules of workplace safety and health", translated them into nine languages, printed them on posters, and displayed them at various places at our sites.

Since 2019, we have been using a software-based information and collaboration platform at all Group sites to collect coherent data in the areas of environment, occupational safety and health protection on a monthly basis. Detailed reports are prepared on all LTIs (Lost Time Injuries), which

the Chief Operating Officer, General Managers, EHS Manager and EHS Managers at all sites receive. Based on these reports, they can take appropriate action to prevent similar incidents in the future. In addition, we conduct weekly "Gemba Walks" at our main sites to identify possible safety risks and look for optimization opportunities in the production processes. As a matter of principle, we follow a preventive approach in order to avoid all potential risk situations as early as possible.

To accompany these measures, we run training courses on EHS topics and use different media channels to illustrate general safety requirements, protective measures and other key issues of the subject area. The training courses are held at regular intervals throughout the Group. During the courses, specific findings are also discussed in order

to continuously expand the knowledge and experience of all employees. Wearing safety equipment is mandatory throughout the Group and applies to all employees and other persons who enter the production areas. Our safety services also include the provision of escape and rescue plans everywhere, as well as the creation of standard templates for instruction documents such as work instructions and process descriptions. The furnishing of workplaces according to ergonomic aspects and the setting up of comfortable workplaces are also part of this.

Our EHS managers are responsible for the ongoing improvement of our workplace safety, and regularly carry out safety checks and audits within the Group. Hence, they are driving the process forward to achieve the implementation of ISO 45001 certification at all production sites by the year 2025. In 2022, we also implemented the certification process in Vietnam and Wuxi/China.

The Lost Time Injury Frequency Rate (LTIFR; Accidents with lost time of at least one day/shift) was 3.30 in 2022 (previous year: 6.16). We attribute the decrease in the rate to our preventive measures in occupational health and safety.

In connection with the pandemic, we expanded the offer of mental health services, for example at sites in Germany and France. During the pandemic, employees at the sites in

FREQUENCY OF ACCIDENTS AND FATALITIES

Key indicators for occupational health and safety at all Pfeiffer Vacuum production sites

	2022			2021 ¹			2020 ¹			Total		
	Europe	Asia	USA	Europe	Asia	USA	Europe	Asia	USA	2022	2021	2020
LTI (Lost Time Injuries: Accidents requiring at least one day of absence)	20	0	5	31	10	2	43	2	1	25	43	46
LTIFR (Lost Time Injuries Frequency Rate: LTI per 1 million working hours)	5.56	0	5.94	9.19	3.52	2.6	13.87	0.73	1.3	3.3	6.16	6.98
Work-related deaths	0	0	0	0	0	0	0	0	0	0	0	0
FAR (Fatal Accident Rate: Frequency of fatalities) in %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

¹ The previous year's figures have been adjusted presenting the total Group. Figures are given for the Group as a whole instead of selected sites.

Germany and Vietnam had the opportunity to be vaccinated against Covid and to be tested; in other countries this was not legally feasible. The necessary medical personnel came to the respective sites for this purpose. At our workplaces, throughout the year 2022, our infection protection concept included the regular recommendation to wear mouth and nose protection masks in cases where appropriate distancing was not possible.

The health protection concept at the production site in Asslar is managed by the HR and EHS department and includes measures such as health consultations with a company physician, the regular supply of personal protective equipment, and the 2021 "Mission Zero" poster campaign to raise awareness for the prevention of occupational accidents. All documents are available to the entire Group. Pfeiffer Vacuum in Annecy offers employees similar programs and also established the "MoveGreen" program in 2021, which encourages employees to come to work by bicycle. Programs will continue to be adapted to the locally identified areas. At our main sites in Europe, the US and Asia, we trained our employees on the topics of prevention of safety risks, chemical leakage, electric shock emergencies, firefighting contingencies, emergency rescue, chemical emergencies, hazardous waste, lifting devices, fork lifts, and lockout/tagout.

Our Role in Society

It is not only for ourselves and for our families and business partners that our work and our various impacts in society and nature are significant. As a large Company, we also have close relationships with local communities.

We are located at more than 20 sites in Europe, America and Asia, with our production, administration and logistics operations employing around 3,935 people worldwide. As an internationally active Company, we make valuable contributions to local social communities in various ways: Firstly, as an employer, by offering secure and attractive jobs with reliable salary payments, and as a business partner by making payments to our suppliers. And secondly, as a taxpayer (see chapter "2.2 Responsible Corporate Governance"), by contributing to the local community and financing a broad range of applications in a wide variety of industries with our products. At all our sites (see chapter "3.3 Production") and in our business relationships (see chapter "3.2 Procurement/Supply Chain Management"), we take care to protect the environment as far as possible.

Time and again, in our relationships and dialogs at our various sites, we are asked to participate locally and regionally in further measures to promote the common good and protect nature. As a Company, we are happy to accept this responsibility and contribute to corresponding local initiatives. The CSR Board discusses our positioning strategy within society and defines it in line with our values. In a further step, this strategy is then incorporated into our business and social

relationships via our communication measures, in the same way as our sustainability standards (see chapter "2.2 Responsible Corporate Governance").

We support our diverse local participation and involvement in a similar way to promote our sustainability issues and goals. In recent years, we have supported children's charities and schools, universities and research institutes, cultural events, sports clubs, charities for the financially needy, fire departments, and medical/technical institutions with donations and sponsorships. In 2022, we made additional donations to alleviate the plight of the Ukrainian people. In 2020, our actions amounted to a total of € 197,903. In 2021, it was € 159,215 and in 2022 € 441,101.

The Management Directors or the Members of the Executive Board decide on the individual measures on site, but may also consult with the Executive Board depending on the amount in question. All donations are documented in writing and compiled in an annual list of donations that can be viewed for auditing purposes. For the coming years, we plan to further systematize our involvement in local communities, in alignment with our sustainability strategy, in order to support our sustainability issues and objectives even more efficiently.

Pfeiffer Vacuum fundamentally welcomes political framework conditions that promote innovation, and it strives to identify approaches for solutions to eco-social challenges. However, we do not make financial or in-kind donations to individual political parties.

5. SUSTAINABILITY INDICATORS

More and more multi-stakeholder organizations, states, and the United Nations are issuing fundamental guidelines regarding the ecological/social transformation of economic activity that we use to systemize our sustainability management (see chapter “2. Sustainability at Pfeiffer Vacuum”), to orient ourselves toward international sustainability goals, and to evaluate our sustainability performance.

Key indicators are provided by the EU Taxonomy, the UN Global Compact¹, the UN Sustainable Development Goals (SDGs)¹ and the Global Reporting Initiative (GRI)¹, which we present in detail below and in a jointly concluded overview in the GRI Content Index (see page 206 ff.) as a complete table of contents for the corresponding text passages in this Sustainability Report.

EU Taxonomy

In the course of the expansion of non-financial disclosure requirements, Pfeiffer Vacuum is providing information on the implementation of Regulation (EU) 2020/852 (Taxonomy Regulation) for the second time for the reporting year 2022. As part of the Sustainable Finance Action Plan, a central objective of the EU Taxonomy is to channel financial flows into environmentally sustainable activities. In order to achieve this goal, the EU taxonomy intends to create a classification system and thus a uniform understanding of ecologically sustainable activities. In drafting the regulation, the European Commission focused on economic sectors and industries that are primary emitters of greenhouse gases and derived possible relevant economic activities from these. The identified economic activities were put in relation to six key environmental objectives (Art. 9 Taxonomy Regulation):

- 1) Climate change mitigation
- 2) Climate change adaptation
- 3) Sustainable use and protection of water and marine resources
- 4) Transition to a circular economy
- 5) Prevention and reduction of pollution
- 6) Protection and restoration of biodiversity and ecosystems

Which economic activities are potentially considered environmentally sustainable (taxonomy-eligible) and actually be carried out in an ecologically sustainable manner (taxonomy-aligned) is specified by the EU Commission through Delegated Acts. To date, there is a Delegated Act on the environmental objectives “climate change mitigation” (see Annex I of the Delegated Act) and “climate change adaptation” (see Annex II of the Delegated Act).

In this regard, all economic activities are to be classified as taxonomy-eligible if they are listed in Annexes I or II in principle and a classification can be made. Economic activities according to Art. 3 Taxonomy Regulation are only to be classified as taxonomy-aligned if they are

- in accordance with articles 10 to 16 making a substantial contribution to the achievement of one or more of the above-mentioned environmental objectives and
- according to Art. 17, have no significant impairment of one or more of the five other environmental objectives (“Do No Significant Harm” – DNSH) and
- in accordance with Art. 18 are minimum safeguards, and
- the respective valid technical evaluation criteria are met, which are described by the EU Commission in the Delegated Acts.

Development, production and distribution of vacuum pump systems and components (vacuum generation, measurement and analysis) do not fall within the scope of this regulation. The core activities of Pfeiffer Vacuum are not affected by the activities described in Annex I and II of the Delegated Act of the EU Taxonomy. However, this does not mean that those activities do not pursue and support the objectives of the Company’s overall sustainability strategy. Moreover, Pfeiffer Vacuum’s products are also used in industries that contribute to sustainable development. For example, in the manufacture of batteries, solar systems as well as in fusion reactors.

¹ These are not the subject of the audit in accordance with ISAE 3000 (revised).

Taxonomy eligibility analysis

To determine the taxonomy eligibility, we built on last year's analyses, validated the activities already identified in workshops with the business units concerned and examined potential new activities, and finally recalculated the KPIs.

There were no activities identified that are relevant to the turnover KPI according to EU Taxonomy Regulation. However, sustainable investments in our locations as well as the decarbonization of our Company car fleet can be classified to economic activities according to the EU taxonomy, which are relevant for capital expenditures (CapEx KPI) or operating expenditures (OpEx KPI). The CapEx and OpEx KPIs at Pfeiffer Vacuum are therefore not based on sales and are to be assigned to category (c) in accordance with Commission Delegated Regulation (EU) 2021/2178, Annex I, No. 1.1.2.2. An individual analysis was performed for this purpose. Identified taxonomy-eligible activities are:

In the identification of taxonomy-eligible economic activities, changes have occurred compared to the previous year: Due to repairs and maintenance on our wastewater collection system (economic activity 5.4), operating expenses (OpEx) were incurred to a minor extent this year. In the area of capital expenditure (CapEx) in 2022, there were major investments in energy efficient equipment such as lighting sources or heating, ventilation, and air conditioning (economic activity 7.3) and in renewable energies such as photovoltaic systems (economic activity 7.6).

Taxonomy alignment analysis

In addition to this, in accordance with the Taxonomy Regulation for the financial year 2022, an analysis and determination of the taxonomy conformity was carried out. A review of the technical assessment criteria for the significant contribution "Do No Significant Harm" (DNSH) in the course of interviews and workshops led to the conclusion that the required evidence cannot currently be provided at present for the year 2022. In particular, in the area of climate risk analysis the steps required by the taxonomy, such as the incorporation of climate projection scenarios have not yet been fulfilled and therefore no taxonomy-aligned economic activities can be reported.

Although the technical evaluation criteria for the significant contribution and significant adverse effects (DNSH) of the individual activities identified have not been met and therefore taxonomy alignment could not be achieved in fiscal year 2022, a review of the minimum social standards at the corporate level took place. For the assessment, four topics were considered: Human rights (including labor and consumer rights), corruption and bribery, taxes, and fair competition, which were based on the guiding principles of the UNGP, OECD, ILO, and the International Charter of Human Rights. The requirements of the Minimum Safeguards

IDENTIFIED TAXONOMY-ELIGIBLE ACTIVITIES

No.	Economic activity	Assignment to environmental goal	Brief description
5.4	Renewal of waste water collection and treatment	Climate change mitigation	Repair and maintenance on wastewater collection systems
6.5	Transportation by motorbikes, passenger cars and light commercial vehicles	Climate change mitigation	Employee company car
6.6	Freight transport services by road	Climate change mitigation	Vehicles for transport of goods
7.1	Construction of new buildings	Climate change mitigation	New construction of office buildings and production sites
7.2	Renovation of existing buildings	Climate change mitigation	Various renovation works at office and production sites
7.3	Installation, maintenance and repair of energy efficient equipment	Climate change mitigation	Various energy-efficient refurbishment and maintenance measures at existing office and production sites, such as installation of energy-efficient light sources
7.6	Installation, maintenance and repair of renewable energy technologies	Climate change mitigation	Installation of photovoltaic systems
7.7	Acquisition and ownership of buildings	Climate change mitigation	Leased and owned buildings

require, on the one hand, reliable processes for the topics under consideration, and on the other hand, there must be no violations of these. A comprehensive analysis by the Compliance department revealed that Pfeiffer Vacuum complies with the underlying criteria.

Calculation of the KPIs

The amounts used for the calculation of taxonomy-eligible and taxonomy-aligned turnover, CapEx and OpEx are based on the figures in the consolidated financial statements.

Since our business activities as a whole are not relevant for the Taxonomy Regulation, double counting of capital expenditures and operating expenditures has been prevented by allocating them exclusively to the identified economic activities for CapEx and OpEx.

Turnover

The turnover KPI corresponds to the ratio of net turnover from taxonomy-eligible or -aligned economic activities in a financial year to total net turnover in the same financial year. Net sales (IFRS 15) in the financial year 2022 form the denominator of the turnover KPI (see Consolidated statement of income in the notes to the consolidated financial statements p. 136).

CapEx

The denominator for capital expenditure (CapEx) includes additions to rights of use, property, plant and equipment and intangible assets during the financial year under review before depreciation, amortization and revaluations, including those resulting from revaluations and impairment losses for the financial year in question and excluding changes in fair value. The denominator must also include additions to rights of use, property, plant and equipment and intangible assets resulting from business combinations (application of IAS 16, 38, 40, 41, IFRS 16).

In the denominator, Pfeiffer Vacuum has included capital expenditures for property, plant and equipment and intangible assets as well as rights of use (see Notes to the Consolidated Financial Statements p. 138).

The numerator of the CapEx-KPI corresponds to the portion of the capital expenditures included in the denominator that relates to assets or processes associated with taxonomy-eligible or -aligned economic activities. In the case of Pfeiffer Vacuum, the numerator of taxonomy-eligible capital expenditures consists of additions to property, plant and equipment (€ 22.65 million) and additions to rights of use (€ 4.80 million).

CapEx plans as defined by the EU taxonomy were not adopted.

OpEx

The denominator for operating expenses (OpEx) includes direct, non-capitalised costs that relate to research and development, building renovation measures, short-term lease, maintenance and repair, and any other direct expenditures relating to the day-to-day servicing of property, plant and equipment by the Company or third parties to whom activities are outsourced that are necessary to ensure the continued and effective functioning of such assets.

In the denominator, Pfeiffer Vacuum has operating expenses related to maintenance and repair, research and development, and other direct costs (see Notes to the Consolidated Financial Statements p. 136). At Pfeiffer Vacuum, the numerator of the OpEx-KPI corresponds to the portion of the operating expenses included in the denominator that relates to assets or processes associated with taxonomy-eligible or -aligned economic activities. The numerator of the taxonomy-eligible operating expenses is made up of expenses for building refurbishment measures (€ 0.63 million) and maintenance and repair expenses (€ 3.13 million).

The KPIs for the financial year are as illustrated in the reporting sheets¹:

¹ No information is provided on further nuclear power and gas reporting sheets pursuant to Regulation (EU) 2022/1214, as Pfeiffer Vacuum does not perform any of these activities.

Reporting sheets

SHARE OF SALES (FROM GOODS OR SERVICES),
RELATED TO ECONOMIC ACTIVITIES IN CONFORMITY WITH TAXONOMY –
DISCLOSURE FOR THE YEAR 2022

Economic activities (1)	Code(s) (2)	Absolute sales (3)	Proportion of sales (4)	Substantial contribution criteria						DNSH-criteria ("Do No Significant Harm")						Minimum safeguards (17)	Taxonomy- aligned proportion of sales 2022 (18)	Taxonomy- aligned proportion of sales 2021 (19)	Category (enabling activities) (20)	Category (transitional activity) (21)
				Climate change mitigation (5)	Climate change adaption (6)	Water and marine resources (7)	Circular economy (8)	Pollution (9)	Biodiversity and ecosystems (10)	Climate change mitigation (11)	Climate change adaption (12)	Water and marine resources (13)	Circular economy (14)	Pollution (15)	Biodiversity and ecosystems (16)					
		in € millions	in %	in %	in %	in %	in %	in %	in %	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	in %	in %	E	T
A. TAXONOMY-ELIGIBLE ACTIVITIES																				
A.1 Environmentally sustainable activities (Taxonomy-aligned)																				
Sales of environmentally substantial activities (Taxonomy-aligned) (A.1)		0.00	0.00	0.00	0.00	–	–	–	–	–	–	–	–	–	–	yes	0.00	–	–	–
A.2 Taxonomy-eligible but not environ- mental substantial activities (not Taxonomy-aligned activities)																				
Sales of Taxonomy-eligible but not environmentally substantial activities (not Taxonomy-aligned activities (A.2)		0.00	0.00	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total (A.1 + A.2)		0.00	0.00	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00	–	0.00	0.00
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES																				
Sales of Taxonomy-non-eligible activities (B)		916.71	100.00																	
Total (A+B)		916.71	100.00																	

**CAPEX PORTION OF GOODS OR SERVICES,
RELATED TO ECONOMIC ACTIVITIES IN CONFORMITY WITH TAXONOMY –
DISCLOSURE FOR THE YEAR 2022**

Economic activities (1)	Code(s) (2)	Absolute CapEx (3)	Proportion of CapEx (4)	Substantial contribution criteria				DNSH-criteria ("Do No Significant Harm")												Taxonomy- aligned proportion of CapEx 2022 (18)	Taxonomy- aligned proportion of CapEx 2021 (19)	Category (enabling activities) (20)	Category (transitional activity) (21)
				Climate change mitigation (5)	Climate change adaption (6)	Water and marine resources (7)	Circular economy (8)	Pollution (9)	Biodiversity and ecosystems (10)	Climate change mitigation (11)	Climate change adaption (12)	Water and marine resources (13)	Circular economy (14)	Pollution (15)	Biodiversity and ecosystems (16)	Minimum safeguards (17)							
		in € millions	in %	in %	in %	in %	in %	in %	in %	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	in %	in %	E	T		
A. TAXONOMY-ELIGIBLE ACTIVITIES																							
A.1 Environmentally sustainable activities (Taxonomy-aligned)																							
CapEx of environmentally substantial activities (Taxonomy-aligned) (A.1)		0.00	0.00	–	–	–	–	–	–	–	–	–	–	–	–	–	yes	0.00	–	–	–		
A.2 Taxonomy-eligible but not environ- mental substantial activities (not Taxonomy-aligned activities)																							
Transport by motorbikes, passenger cars and light commercial vehicles	6.5.	0.80	0.86	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		
Freight transport services by road	6.6.	0.04	0.04	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		
Construction of new buildings	7.1.	10.46	11.28	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		
Renovation of existing buildings	7.2.	763	8.22	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		
Installation, maintenance and repair of energy efficiency equipment	7.3.	1.91	2.06	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		
Installation, maintenance and repair of renewable energy technologies	7.6.	0.23	0.25	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		
Acquisition and ownership of buildings	7.7.	6.38	6.88	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		
CapEx of Taxonomy-eligible but not environ- mentally substantial activities (not Taxonomy-aligned activities) (A.2)		2745	29.59	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		
Total (A.1 + A.2)		2745	29.59	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00	–	0.00	0.00		
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES																							
CapEx of Taxonomy-non-eligible activities (B)		65.32	70.41																				
Total (A+B)		92.77	100.0																				

**OPEX SHARE OF GOODS OR SERVICES,
RELATED TO ECONOMIC ACTIVITIES IN CONFORMITY WITH TAXONOMY –
DISCLOSURE FOR THE YEAR 2022**

Economic activities (1)	Code(s) (2)	Absolute OpEx (3)	Proportion of OpEx (4)	Substantial contribution criteria				DNSH-criteria ("Do No Significant Harm")												Taxonomy- aligned proportion of OpEx 2022 (18)	Taxonomy- aligned proportion of OpEx 2021 (19)	Category (enabling activities) (20)	Category (transitional activity) (21)
				Climate change mitigation (5)	Climate change adaption (6)	Water and marine resources (7)	Circular economy (8)	Pollution (9)	Biodiversity and ecosystems (10)	Climate change mitigation (11)	Climate change adaption (12)	Water and marine resources (13)	Circular economy (14)	Pollution (15)	Biodiversity and ecosystems (16)	Minimum safeguards (17)	in %	in %	E				
A. TAXONOMY-ELIGIBLE ACTIVITIES																							
A.1 Environmentally sustainable activities (Taxonomy-aligned)																							
OpEx of environmentally substantial activities (Taxonomy-aligned) (A.1)		0.00	0.00	–	–	–	–	–	–	–	–	–	–	–	–	–	yes	0.00	–	–	–		
A.2 Taxonomy-eligible but not environmental substantial activities (not Taxonomy-aligned activities)																							
Renewal of waste water collection and treatment		5.4.	0.07	0.15	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		
Acquisition and ownership of buildings		7.7.	3.68	7.57	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		
OpEx of Taxonomy-eligible but not environmentally substantial activities (not Taxonomy-aligned activities) (A.2)		3.75	7.72	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		
Total (A.1 + A.2)		3.75	7.72	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00	–	0.00	0.00		
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES																							
OpEx of Taxonomy-non-eligible activities (B)		44.83	92.28																				
Total (A+B)		48.58	100.0																				

UN Global Compact¹

Since 2021, we have been a member of the United Nations (UN) Global Compact, the world's largest sustainability initiative (www.unglobalcompact.org). We are committed to making the principles of this Code an integral part of our corporate strategy (see chapter "2. Sustainability at Pfeiffer Vacuum") and we make our implementation of the ten Code principles, mentioned below, transparent via the corresponding content references in the GRI Content Index (see page 206 ff.).

UN Sustainable Development Goals¹

The 17 Sustainable Development Goals (SDGs) are the most important political goals of the United Nations (UN) aimed at ensuring economic, social and environmental development worldwide. They came into force for all countries in 2016 and are valid until 2030 (<https://sdgs.un.org/goals>).

We examined the SDGs and identified six main goals, and nine subgoals, to which we, as a technology Company, can make significant sustainability contributions. They are in line

with our corporate and sustainability strategies (see chapter "2. Sustainability at Pfeiffer Vacuum"). We have added these relevant goals for Pfeiffer Vacuum to the table of contents of the GRI Content Index (see page 206 ff.) in order to make our corresponding sustainability performance transparent.

THE TEN UN GLOBAL COMPACT PRINCIPLES

Human Rights

1. Businesses should support and respect the protection of internationally proclaimed human rights.

2. Ensure that business practices are not complicit in human rights abuses.

Labor Standards

3. Uphold the freedom of association and the effective recognition of the right to collective bargaining.

4. Eliminate all forms of forced and compulsory labor.

5. Abolish child labor.

6. Eliminate discrimination in employment and occupation.

Environment

7. Adopt a precautionary approach to environmental challenges.

8. Undertake initiatives to promote greater environmental responsibility.

9. Encourage the development and diffusion of environmentally-friendly technologies.

Anti-corruption

10. Work against all forms of corruption, including extortion and bribery.

¹ These are not subject to the audit in accordance with ISAE 3000 (revised).

Sustainable Development Goals¹



Relevant Target for Pfeiffer Vacuum

5.5 _ Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life

Our Contributions

Pfeiffer Vacuum promotes women and enables their equal opportunities at all hierarchical levels. We foster equal pay for work and fight against any form of discrimination. We have 33 % women on the supervisory board and 50 % women on the management board.



Relevant Targets for Pfeiffer Vacuum

7.2 _ By 2030, substantially increase the proportion of renewable energy in the global energy mix

7.3 _ By 2030, double the global rate of improvement in energy efficiency

Our Contributions

Pfeiffer Vacuum invests in sustainable, energy-efficient and environmentally-friendly production, logistics and services. Moreover, particularly energy-efficient products are offered. Pfeiffer Vacuum itself promotes the production of renewable energy by operating biomass or photovoltaic systems and buying from renewable sources.



Relevant Targets for Pfeiffer Vacuum

8.4 _ Improve progressively, through 2030, global resource efficiency in consumption and production and endeavor to decouple economic growth from environmental degradation

8.8 _ Protect labor rights and promote safe and secure working environments for all workers

Our Contributions

Pfeiffer Vacuum strives for sustainable corporate growth without negative impacts on the environment and in compliance with labor standards at all Company sites. Pfeiffer Vacuum promotes the human right to physical and mental health of employees within the Group and other companies along the supply chain.



Relevant Target for Pfeiffer Vacuum

9.4 _ By 2030, upgrade infrastructure (buildings, machinery) and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes

Our Contributions

Pfeiffer Vacuum is modernizing its production sites to enable sustainable, energy-efficient product manufacturing. Pfeiffer Vacuum invests in research and development to become a technology leader, also concerning energy-efficient products.



Relevant Targets for Pfeiffer Vacuum

12.2 _ By 2030, achieve the sustainable management and efficient use of natural resources

12.6 _ Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle

Our Contributions

Pfeiffer Vacuum invests in sustainable, energy-efficient and environmentally-friendly production. Our research and development focusses on sustainable product and process innovations. Since 2017, Pfeiffer Vacuum has published non-financial information in accordance with CSR-RUG and expands the scope of this with each report. Along its value chain, Pfeiffer Vacuum encourages its business partners and suppliers to enhance their sustainability reporting as well.



Relevant Target for Pfeiffer Vacuum

16.5 _ Substantially reduce corruption and bribery in all their forms

Our Contributions

Pfeiffer Vacuum is committed to combating corruption and bribery. Our management systems and our code of conduct clearly forbid any such behavior.

¹ These are not subject to the audit in accordance with ISAE 3000 (revised).