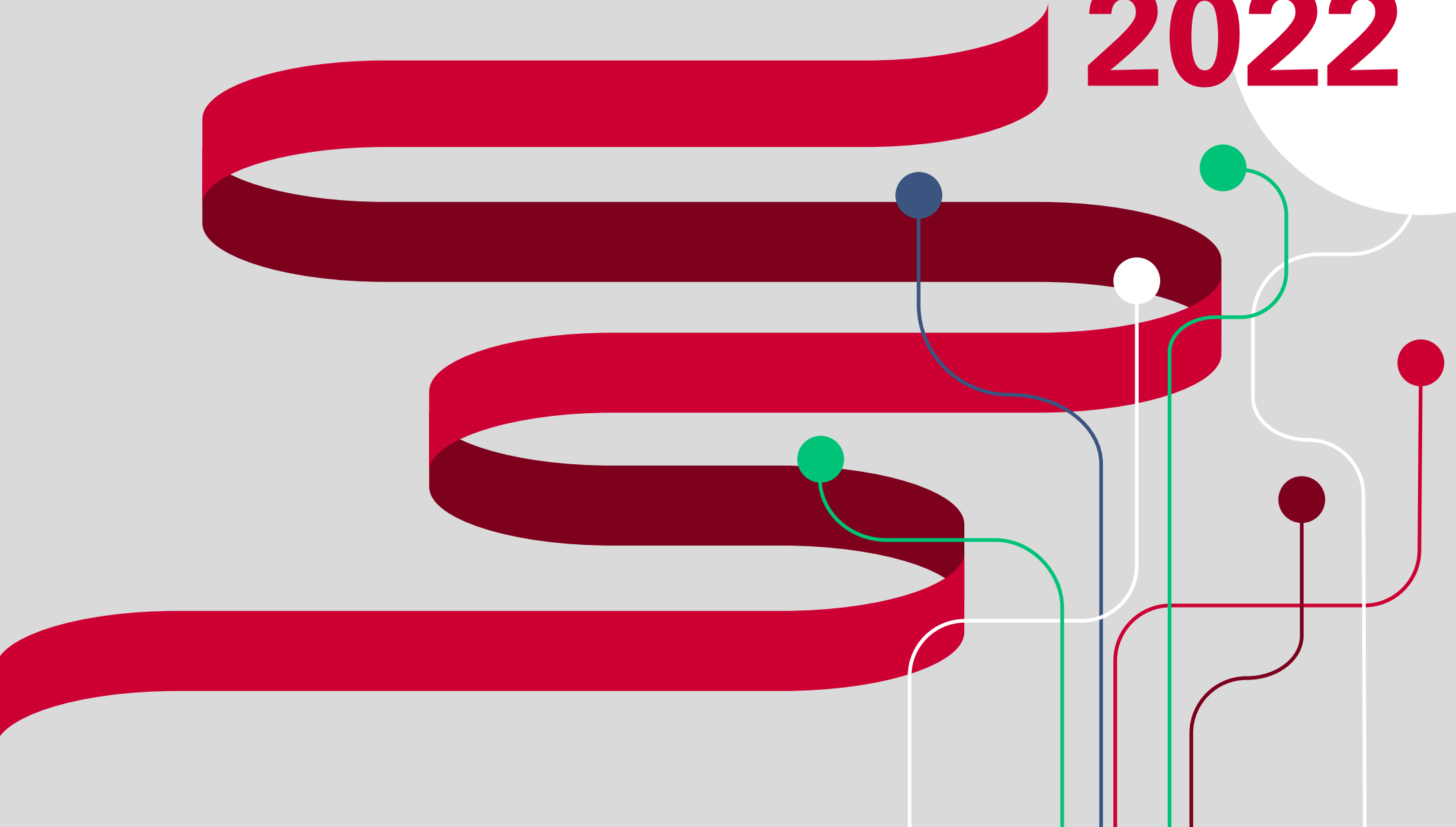


Annual Report **2022**



Key Figures

		2022	2021	Change
Sales and profit				
Total sales	K €	916,711	771,373	18.8 %
Operating profit	K €	119,366	93,093	28.2 %
Operating profit margin	%	13.0	12.1	0.9 Pp
Net income	K €	86,352	61,987	39.3 %
Return on sales	%	9.4	8.0	1.4 Pp
Operating cash flow	K €	46,964	91,578	-48.7 %
Balance sheet				
Total shareholders' equity and liabilities	K €	863,732	707,876	22.0 %
Cash and cash equivalents	K €	67,840	99,371	-31.7 %
Shareholders' equity	K €	531,354	459,376	15.7 %
Equity ratio	%	61.5	64.9	-3.4 Pp
Return on equity	%	16.3	13.5	2.8 Pp
Capital expenditures	K €	80,834	41,607	94.3 %
Workspace				
Workforce (average)		3,717	3,373	10.2 %
Personnel costs	K €	276,420	239,270	15.5 %
Per employee	K €	74	71	4.2 %
Sales per employee	K €	247	229	7.9 %
Per share				
Earnings	€	8.75	6.28	39.3 %
Dividend	€	0.11 ¹	4.08	-97.3 %

¹ Subject to the approval of the Supervisory Board and the Annual General Meeting

All percentages in this Annual Report were derived on the basis of amounts in thousands of euros. Rounding differences might result from their presentation in millions of euros.

Corporate Profile

Pfeiffer Vacuum – a name with a reputation for innovative solutions, high technology and dependable products, along with first-class service. For more than 130 years we have been setting standards in vacuum technology with these attributes. One very special milestone was the invention of the turbopump by our Company more than 65 years ago. Thanks to our know-how, we continue to be the technology and world market leader in this field. To no small degree, this also manifests itself in our strong profitability. Our extensive line of solutions, products and services ranges from vacuum pumps, measurement and analysis equipment, valves as well as leak detectors right through to complex vacuum systems. And quality always plays a key role in this connection: Products from Pfeiffer Vacuum are continuously optimized through close collaboration with customers from a variety of industries, through ongoing development work and through the exceptional enthusiasm and commitment of our people. These are virtues that we will continue to embrace!

Established

1890

Purpose of the Company

To develop, manufacture and market components and systems for vacuum generation, measurement and analysis as well as helium leak detectors

Manufacturing Sites

- Wuxi, China
- Ancey, France
- Aslar, Germany
- Dresden, Germany
- Göttingen, Germany
- Asan, Republic of Korea
- Cluj, Romania
- Indianapolis, USA
- Yreka, USA
- Ho Chi Minh City, Vietnam

Head-quarters

Aslar, Germany

3,935

Workforce

worldwide
(as of December 31, 2022)

Growth Strategy

Our vision is to be the most sustainable and fastest growing market player in our industry to drive technology for a sustainable future and contribute to a better world for coming generations. We consistently expanded our production capacity in 2022. Our Company will continue to invest in customer centricity to serve growing markets and satisfy increasing demand.



Customer Centricity

We have focused our strategy even stronger on the customers' requirements. This also includes the development of new products in close collaboration and, in part, jointly with customers. In addition, an increasing number of products will be manufactured directly on site near to the customers.



Corporate Social Responsibility

In 2022, we once again revised our sustainability strategy extensively in order to become the most sustainable market player in our industry. Core topics include the reduction of CO₂ emissions and the topic of governance. We intend to reduce our CO₂ emissions by 2030 to a level at which our production is climate-neutral.



Highlights

2022

Expanding Production Capacities

To meet rising customer demand, we invested around € 81 million in 2022 in additional machinery and equipment, the expansion of our production sites as well as process flows and logistics. Our building infrastructure will also be expanded systematically over the next few years to ensure that market growth opportunities can be exploited long-term in the best possible way.



Supply Chain Management

Despite disrupted supply chains, we were nevertheless able to maintain a high level of production – thanks also to the great commitment of the purchasing team. Our Company – and the purchasing organization in particular – also benefited from our ability to access a substantial number of suppliers due to the cooperation with our strategic partner Busch in the context of the Relationship Agreement.



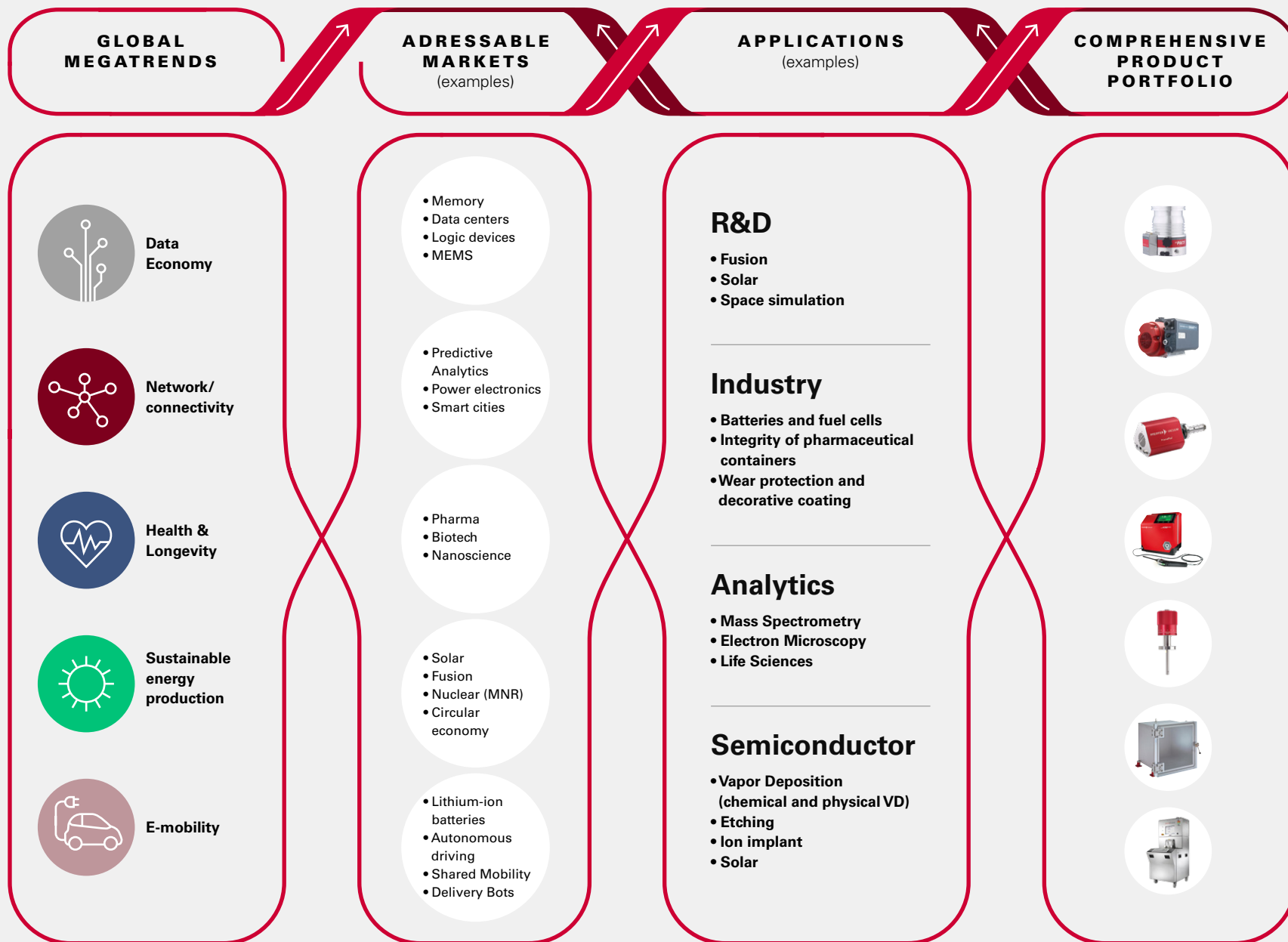
New products

With the launch of the SmartVane in 2022, we introduced the first rotary vane pump for mass spectrometry that features a hermetically sealed pump housing. Primary uses for this pump are environmental and food analysis applications as well as pharmaceutical and clinical analysis.



Global Mega-trends

are driving Pfeiffer Vacuum's Products and Applications



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We publish our complete Annual Report exclusively in digital format as a PDF. For further information please also refer to our

➤ [Website](#)

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To our Shareholders

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Interview with the Management Board



“We are focused on long-term, sustainable growth – not on short-term profit maximization.”

Dr. Britta Giesen CEO
[↗ CV](#)

Wolfgang Ehrk COO
[↗ CV](#)

The 2022 fiscal year was characterized by record sales, full order books and further increasing profitability. Pfeiffer Vacuum Group sales increased by 18.8% to € 916.7 million and operating profit (EBIT) by 28.2% to € 119.4 million. In the following interview, Management Board members *Dr. Britta Giesen (CEO)* and *Mr. Wolfgang Ehrk (COO)* jointly reflect back on the past year, discuss ways to successfully master existing as well as future challenges and look ahead to the current 2023 fiscal year. The objective is to stay on course for long-term profitable growth.

How do you assess the results of the 2022 fiscal year overall?

Dr. Britta Giesen: In 2022, at € 1.1 billion, we recorded the highest order intake in the Company's history. The turnover achieved of € 916.7 million also marks a new record level. In total, we are 18.8 percent above the value of 2021 and 48.2 percent above 2020. This means that in the past two consecutive years, we made two large steps forward in terms of our growth. Moreover, despite stressed supply chains and steep increases in the price of materials, we were still able to significantly increase profitability. From my point of view, 2022 was an all-around successful financial year.

Against the background of the record results achieved in sales and new orders, how do the production and logistics divisions manage to handle this immense demand?

Dr. Britta Giesen: All departments in the Company rose to this Herculean challenge together: They worked extremely hard to process orders and reacted decisively to the difficult general conditions that prevailed worldwide. We just have a great team. Our production and logistics teams delivered a strong performance and handled the high demand from customers in an exemplary manner. In 2022, the purchasing team again showed great commitment and creativity in finding solutions that allowed us to maintain high level production despite the stressed supply chains. We also played our part at board level by communicating a clear strategic direction. This way, everyone knows what they are working for, where the journey is leading to and how they are able to contribute. Our employees think and act in a very agile manner – this is crucial when faced with demanding market phases. Another enormously important factor is our customers' confidence in our ability to deliver. Facing a difficult environment, we have been more successful than our competitors in our delivery reliability during the past two years. This has set us apart.

What measures did you take to minimize disruption?

Wolfgang Ehrk: Disruptions in supply chains and the increased demand from our customers were predictable. This is the reason why we launched a functional strategy in early 2021 that adapted production as well as the infrastructure to the changed product mix. We invested primarily

in additional machines as well as systems very quickly and unbureaucratically. These had to be integrated of course into existing areas. However, in the next few years we also intend to expand the infrastructure (such as buildings) in a targeted manner. We have also built-up a new purchasing organization together with our strategic partner Busch. We developed classic commodity purchasing with lead buyers for the entire group and strengthened the Company locations in regard to operational and strategic purchasing. We also took a close look at our global supply chains and decided to expand our so-called "dual sourcing system" even further. In addition, we focused even stronger on qualifying local suppliers closer to the respective production sites.

To what extent have the drastically increased energy prices impacted Pfeiffer Vacuum compared to the previous year?

Dr. Britta Giesen: Compared to many other companies, our production process is less energy intensive. In that regard, the cost burden is kept within limits. However, we need constant temperatures to manufacture our products. We prepared for a potential European gas shortage by developing alternative energy sources. At our Asslar site, for example, we installed an oil heating system, which we could switch to if required. In our warehouse in France, we replaced the gas heating system with a heat pump. All our plants in Europe are now able to produce independently of gas.



What other investments have you made in the current financial year to provide additional capacities to cover the increased demand?

Wolfgang Ehrk: In fiscal year 2022, we invested € 80.8 million, primarily in machines, systems, processes and logistics. The slightly changed product mix, modernization requirements, process adjustments and the expansion of capacities all played a role when it came to selecting investment projects. Let me explain this using the example



of our site in Asan, Korea: In the future, we intend to manufacture an increasing number of products from our portfolio here for our semiconductor customers. This means that we are closer to our customers and are able to supply them faster and more efficiently. Our other sites will also undergo similar tailor-made capacity expansions. In particular, these will include expansions of the building infrastructure in the coming years. We are also planning to expand our investments in automated and connected technologies. With these measures, we want to ensure our best possible use of market growth opportunities.

To what extent have the investments in the course of capacity expansion and special expenses impacted *EBIT and margins*?

Dr. Britta Giesen: The investments we have made and the resulting depreciation expenses have impacted margins far less than the additional costs we had to absorb for the purchase of materials and for the management of fragile supply chains. In order to meet our promised delivery dates, we made purchases, for example, on the spot markets.

There, you often pay much higher prices than those of long-standing suppliers. Given these circumstances and the significant investments in new machines, employees and our IT landscape, I believe we did a really good job.

The semiconductor market always develops very cyclically. How do you deal with this and what is it like in the other markets?

Dr. Britta Giesen: One of our core competencies in the field of semiconductors is that we are able to adapt to its cyclical nature – this means we are able to ramp certain capacities up and down relatively quickly. It is also important to recognize that the semiconductor market accounts for about 50 percent of our sales. We generate the other half in the less cyclical Analytics, Industry and R&D market segment. And here, too, our sales in 2022 have clearly increased in the double digit percentage range compared to the previous year.

In the past year, the overall market for vacuum technology was at such a high level that the production capacities of equipment manufacturers especially in the semiconductor market were barely sufficient to meet the demand. As a result, even slight downswings give less cause for concern. We expect that this situation will continue at a high level. We also started into the year 2023 with a good order backlog behind us. Our biggest customers are already planning their next investments and expect us to expand our capacities as well. We have also been working with most of our customers for a very long time. They appreciate our products as well as processes and have completed the qualification procedures for our pumps. You do not simply change suppliers overnight, so we are sailing in comparatively safe waters in this respect.

What *positioning* has Pfeiffer Vacuum meanwhile developed in relation to competitors? How did 2022 contribute to this?

Dr. Britta Giesen: In the period under review, we grew faster than the overall market in some areas and, consequently, we gained market shares. We are active in a wide variety of markets so it is difficult to make a statement about the overall market position. In my opinion, we come in at a strong second place globally in the fields of pumps, components and leak detectors. We adjusted our strategy last year and focused it even more closely on our customers. That was obviously a step in the right direction. If you want to gain market shares in rapidly growing markets, you also have to be able to meet the increasing demand and invest heavily in production capacities – both in your own and in those of the supply chain. And this is what we want to do even stronger in the future than in the past.

How important is the *strategic cooperation* with your anchor shareholder Busch, which offers a complementary product portfolio?

Dr. Britta Giesen: We have been working with the Busch Group since May 2019 on the basis of a so-called Relationship Agreement. This results in many operational synergies. In 2020, for example, we established the joint purchasing organization, which my colleague just mentioned. We benefited from this during the most recent supply bottlenecks. Nevertheless, when working together, we always have to respect the rights of all shareholders and document our actions very comprehensively, sometimes even audit them.



“Our vision is to be the most sustainable and fastest growing market player in our industry to drive technology for a sustainable future and contribute to a better world for coming generations.”

This is very complex and expensive. In order to simplify the coordination between the two companies and, in particular, the decision-making processes required for this purpose, the Busch subsidiary and shareholder Pangea GmbH is seeking a domination and profit and loss transfer agreement, which we have known about since early November 2022. For Pfeiffer Vacuum shareholders, this means a guaranteed share purchase price payment or guaranteed dividends. This ensures that minority shareholders are not disadvantaged.

Sustainability is part of the vision and strategy of Pfeiffer Vacuum Technology AG. What changes were there in this area in the 2022 fiscal year?

Dr. Britta Giesen: We have comprehensively revised our sustainability strategy. It continues to cover all legally required areas such as environmental protection, respect for human rights, employee matters and maintaining the social environment as well as the fight against corruption and bribery. The analysis of the expectations of our stakeholders carried out in the course of this showed that there are two topics in the foreground: The reduction of CO₂ emissions and the issue of governance. These are contained as core topics in our sustainability strategy. We are aiming to reduce Scope 1 and Scope 2 emissions by 2030 to the extent that allows Pfeiffer Vacuum to produce in a climate-neutral manner.

Do you already use systems to generate renewable energies in order to achieve this goal?

Dr. Britta Giesen: Yes, we do. The Annecy site, for example, covers its entire energy supply from a biomass power plant. We also use the waste heat from production there by feeding it into the heating circuit of the city of Annecy. Our logistics center at the site has recently been equipped with a heat pump as heating system. In Asslar, in addition to solar plants, we are using combined heat and power technology. For our sites in Asan, Korea, as well as in Ho Chi Minh City in Vietnam or the various locations in the USA, we are already looking for ways to generate sustainable energy independently.



In the past, Pfeiffer Vacuum has repeatedly worked with well-known *research institutes*. Were there any activities in this respect in the past financial year?

Dr. Britta Giesen: Yes, there are many forward-looking projects with high-tech requirements in which our products are used. One example is fusion technology. We work, for example, with the ITER project in which 35 countries participate. The world's largest fusion reactor is being built there in order to demonstrate that nuclear fusion as a future energy source is scientifically and technologically feasible. This reactor is equipped with our pumps. This research project is a significant step towards future fusion power plants for generating clean and sustainable electricity. The sun is the model here – it generates its energy through nuclear fusion. Thanks to years of collaboration with our customers in the field of fusion technology, Pfeiffer Vacuum possesses in-depth knowledge and patented product solutions with which we support these projects.

Your chosen *strategy* of being “close to the customer” not just in terms of location has paid off. This is demonstrated not least by the excellent business results in 2022. Are there still one or two adjustments that you would like to make to ensure you are ideally prepared for upcoming challenges and to enable you to build on your successes?

Dr. Britta Giesen: Overall, we have been very successful in aligning ourselves with our customers’ requests and requirements. In the future, we will work with them more than ever to create new solutions for even more efficiency

and sustainability. We are pursuing the goal to further increase our own influence on the sustainable development of the industry.

Wolfgang Ehrk: We will also promote the “dual manufacturing” system within the Group. There are still sites where we only manufacture certain product families. However, we would like to achieve a better balance here for a number of reasons. The plan, in particular, is to produce selected core products at two sites in the future. This also positions us closer to the customer.

Last but not least, what can we expect from Pfeiffer Vacuum in 2023 and beyond?

Wolfgang Ehrk: In 2023 and 2024, we will continue to invest heavily in our capacity expansion and bring some very exciting product innovations to market. It is too early to provide details, but it promises to be exciting and our customers and the industry can look forward to it.

Dr. Britta Giesen: Our vision is to be the most sustainable and fastest growing player in our industry in order to advance technologies to achieve a sustainable future and contribute to a better world for generations to come. This is what drives us at Pfeiffer Vacuum.

Thank you for this information and for the interview!

Supervisory Board



Götz Timmerbeil
Deputy Chairman
➤ CV

Minja Lohrer
➤ CV

Timo Birkenstock
➤ CV

Henrik Newerla
➤ CV

Ayla Busch
Chairwoman
➤ CV

Stefan Röser
➤ CV

Report of the Supervisory Board on the 2022 Fiscal Year

Dear Shareholders,

In fiscal year 2022, Pfeiffer Vacuum Technology AG successfully continued the comprehensive transformation process initiated in 2018 towards becoming a global, integrated and agile Company. The Supervisory Board closely supported the Management Board in this process. In addition to the Company's strategic continued development and the ongoing consideration of the Company's sales and earnings development and the Group's financial position and profitability, the handling of the effects of the COVID-19 pandemic, the project "Future Factory Asslar," the consistent further development of the Group-wide IT structure and the remuneration system for the Management Board were important topics of the work of the Supervisory Board in the past fiscal year. There was a strong focus on the topics of digitalization and sustainability.

In fiscal year 2022, the Supervisory Board of Pfeiffer Vacuum Technology AG duly and diligently exercised all the duties attributed to it by law and the Articles of Association. It continuously and conscientiously monitored the work of the Management Board, accompanied and advised on the strategic development of the Company and important individual initiatives with a view to sustainable value creation and satisfied itself about the legality and regularity as well as the expediency and economic efficiencies of the managerial work on the basis of the Management Board's reports. In some cases, the Supervisory Board utilized the support of external experts in its work.

Cooperation between Supervisory Board and Management Board

The Management Board informed the Supervisory Board and/or the chairwoman of the Supervisory Board regularly, comprehensively and in a timely manner about the competitive environment, planned business policy and all strategic and crucial operational decisions. In the same way, the Management Board discussed key financial and non-financial performance indicators with the Supervisory Board as a basis for evaluating the economic situation and strategic development of the Company.

The Management Board reported during Supervisory Board meetings in oral or written form and replied within this setting to questions raised by the Supervisory Board. Outside of the meetings, an intensive exchange of information with the Supervisory Board was also ensured with regular reports on the economic development and the key occurrences of the Company and the Group. Of particular mention is the regular contact which the chairwoman maintained with the Management Board between the meetings to consult with the Management Board on matters of strategy, business development, the state of risk, risk management and compliance of the Company. The Supervisory Board is satisfied that Management Board reporting met the statutory and Supervisory Board's requirements and the principles of good corporate governance.

Business transactions of the Management Board requiring pre-approval were decided by the Supervisory Board after these had been carefully reviewed and the issues were discussed with the Management Board.

Personnel composition of the management bodies

There were no changes in the Management Board in the year under review; this consisted, and still does, of Dr. Britta Giesen as Chairwoman of the Management Board and Mr. Wolfgang Ehrk (COO). The Management Board is supported by a Group Executive Committee, which, in addition to the Management Board members themselves, includes Ms. Hind Beaujon as Chief Sales Officer – CSO (since January 1, 2021), Mr. Sébastien Gerland as Chief People and Culture Officer – PCO (since July 1, 2022), Mr. Benoît Guillaumin as Chief Financial Officer – CFO (since July 1, 2022; before since June 1, 2021 as Chief Controlling Officer), and Mr. Tobias Stoll as Chief Technology Officer – CTO (since February 1, 2022).

There were no changes in the Supervisory Board either during the reporting year. The composition of the Board remains unchanged:

On the part of the shareholder representatives

- Ms. Ayla Busch (member since October 2017)
- Mr. Götz Timmerbeil (member since June 2001)
- Mr. Henrik Newerla (member since April 2018) and
- Ms. Minja Lohrer (member since May 2021),

and as employee representatives

- Mr. Stefan Röser (member since January 2020) and
- Mr. Timo Birkenstock (member since May 2021).

The term of office of the incumbent members of the Supervisory Board ends at the close of the 2025 Annual General Meeting.

The proportion of women on the Supervisory Board is 33.33 % and on the Management Board 50%, in each case as of the reporting date of March 14, 2023.

Supervisory Board meetings and aspects of Supervisory Board work

In fiscal year 2022, the Supervisory Board addressed the current situation of the Company and the Group in a total of 13 meetings, 11 of which were carried out via video conference due to the pandemic and two of which were held face-to-face. It dealt with all issues of importance to the Company and discussed them in detail with the Management Board. Meetings of the Supervisory Board committees were also held. Outside the meetings, the Supervisory Board adopted a number of resolutions by written circular. The Management Board members took part in the plenary meetings, unless there were topics on the agenda that required to be dealt with properly without the presence of the Management Board; therefore, the Supervisory Board met regularly without Management Board members being present.

The Supervisory Board reviewed the current course of business and the quarterly results on a continuous basis and discussed these in detail with the Management Board. It repeatedly received reports on strategy and discussed these reports with the Management Board. A further subject of discussion was the short-term, medium-term and long-term corporate planning, and investment planning, presented by the Management Board, and the development of return on investment. The Management Board reported continually on the profitability of the Group and the performance of key subsidiaries. Other topics of discussion included the top ten investment projects and cash management within the Group.

The Supervisory Board was updated repeatedly on the status of ongoing IT projects and discussed the continued development of the Group-wide IT structure with the Management Board. It also addressed the “Future Factory” project in Asslar on several occasions. The Supervisory Board paid a visit to the Asslar site and held discussions with employees.

It also addressed the structure of Management Board remuneration in detail. Accordingly, on the basis of preparatory work by the Personnel Committee, it adopted an amendment to the Management Board remuneration system, with the objective of taking greater account of ESG aspects in incentivization. This amendment was approved by the Annual General Meeting.

Other aspects of the Supervisory Board’s work included the statement of compliance with the German Corporate Governance Code, the development of employee figures worldwide and a concept for time recording at German locations, as well as key customer projects and market trends in 2022. The Supervisory Board was also kept informed by the Management Board about compliance and compliance management within the Company and the Group, and discussed the risk management system with the Management Board. Attention was also paid to the issue of cyber security.

The Supervisory Board also discussed the Company’s position on the war in Ukraine and its impact on business operations, particularly in connection with supply chain risks and maintaining energy supplies to production sites.

At its financial statements meeting in March, the Supervisory Board, supported by the preparatory work of the Audit Committee and the detailed explanations provided by representatives of the auditor who were present at the meeting, dealt in detail with the Company's annual financial statement documents for the 2021 fiscal year. Following in-depth discussions and review, the Supervisory Board approved the 2021 annual financial statements, the annual report including the combined management report as of December 31, 2021, the Management Board's proposal for the dividend payout ratio and the distribution of profits, the consolidated financial statements 2021, the Group annual report including the combined management report as of December 31, 2021, the non-financial Group statement (NFE report) and the Management Board's report on relations with affiliated companies for 2021. It also adopted the report of the Supervisory Board for 2021 and issued the declaration on corporate governance together with the Management Board.

Other aspects included the draft invitation to the 2022 Annual General Meeting presented by the Management Board, on the basis of which the Supervisory Board adopted the proposed resolutions for the Annual General Meeting. The Supervisory Board also gave its consent to holding the Annual General Meeting in the form of a virtual meeting.

The Supervisory Board also addressed the 2021 target achievements and the calculation of bonuses for the current Management Board members, as part of the variable remuneration for the Management Board, and adopted the corresponding resolutions in accordance with the proposals presented by the Personnel Committee. It also determined the target parameters for the annual bonus 2023 and the assessment period 2023–2025 relating to LTI.

Special attention was paid by the Supervisory Board to corporate governance, taking into account sustainability issues, i.e. the ESG responsibilities (environmental, social and governance) within the Group. The global coordinator for corporate social responsibility reported on this to the Supervisory Board. In addition, the Supervisory Board involved external experts to conduct a training course on ESG issues and reviewed the efficiency of its activity on a rotating basis with the assistance of an external legal expert.

In dialogue with the Management Board, the Supervisory Board discussed the composition of the Group Executive Committee and its work. Personnel planning at Management Board level was also dealt with by the Supervisory Board. The competence profile for the Supervisory Board, which was supplemented with specialist knowledge in the area of ESG, was also discussed in detail by the Supervisory Board. In addition, it adopted the targets for the women's quota in the Supervisory Board and Management Board in accordance with § 111 Sub-Para 5 of the German Stock Corporation Act, and determined a deadline of five years to reach this target.

After the controlling shareholder, Pangea GmbH, announced that it was seeking a control and profit and loss transfer agreement with Pfeiffer Vacuum Technology AG, the Supervisory Board concerned itself with this project and sought a legal expert to inform the Board about the consequences and the procedure for concluding such an agreement.

Supervisory Board Committees

The work of the Supervisory Board in fiscal year 2022 was again accompanied and prepared by its committees. The committees report to the Supervisory Board on their work at regular intervals.

In addition to the Nomination Committee, the Personnel Committee, the Audit Committee and the Related Party Transaction Committee (RPT Committee) were appointed. The tasks and competencies of the committees are defined in the rules of procedure for the Supervisory Board, which are available on the Company's website.

The personnel composition of the Supervisory Board committees in the reporting period was as follows:

Nomination Committee

- Ayla Busch (Chairwoman)
- Minja Lohrer
- Götz Timmerbeil

Management Board Committee

- Ayla Busch (Chairwoman)
- Minja Lohrer
- Henrik Newerla
- Götz Timmerbeil

Audit Committee

- Götz Timmerbeil (Chairman)
- Minja Lohrer
- Ayla Busch

RPT Committee

- Götz Timmerbeil (Chairman)
- Timo Birkenstock
- Henrik Newerla

The Personnel Committee held five meetings in the 2022 fiscal year. A key component of its discussions focused on target achievements in relation to the variable remuneration components of the Management Board in the 2021 fiscal year, and in determining the target parameters for the coming assessment periods. In addition, the Personnel Committee dealt with an amendment to the remuneration system for the Management Board. Finally, the committee dealt with personnel planning for the Management Board. It adopted corresponding proposals for resolutions for the plenum.

The Audit Committee held four meetings in the reporting year. At its March meeting, attended by representatives of the auditor, it dealt in detail with the annual financial statements and the consolidated financial statements of the Company, the non-financial statement and the dependency report, in each case for the 2021 fiscal year, and the audit reports from the independent auditor. In preparation for dealing with the financial statements at the plenary meeting of the Supervisory Board, these documents were discussed in detail with the auditor's representatives and carefully examined on the basis of the information provided. Following discussions held in advance by the committee chairman with the Management Board, the Head of Global Finance and the auditor, and a mandate-related quality report submitted by the auditor, the Audit Committee dealt in detail with the quality of the audit. On the basis of its positive evaluation, the Committee resolved to recommend to the Supervisory Board that it propose to the Annual General Meeting that PricewaterhouseCoopers GmbH, Wirtschaftsprüfungsgesellschaft, Frankfurt am Main, be appointed as auditors of the financial statements and consolidated financial statements for the 2022 fiscal year.

In its October, meeting, which was again attended by the auditor, the Audit Committee dealt with the independence of the auditor and registered the auditor's statement of independence. It determined that agreements would be reached with the auditor regarding the review of the corporate governance rules, and that communication between the committee and the auditor would be defined in greater detail. The auditor's representatives presented the intended approach to auditing the financial statements, and the Committee determined the key points for the audit of the financial statements. Subsequently, the contracts for the audit of the Company's annual financial statements and the consolidated financial statements for 2022 and the non-financial statement for 2022 were awarded to the auditor.

In its further sessions, the audit committee also dealt with the compliance system and the risk management system, and were briefed on this issue by the Head of Global Compliance. Particular attention was paid to the inclusion of geopolitical and sustainability risks in the risk inventory, as well as data protection and the measures arising for the Company from the German supply chain due diligence act. In addition, the Committee sought the report of the Head of Global Finance on the internal audit measures in 2022 and discussed these in detail.

The Related Party Transactions Committee (RPT Committee) met five times in the reporting year. In its meeting in January 2022, it dealt in detail with the master service agreement between Pfeiffer Vacuum Shared Services GmbH and Busch Dienste GmbH as well as other companies belonging to the Busch SE Group for the provision of services to establish and operate a joint IT system. After thorough review and intensive discussion, the RPT Committee agreed the conclusion of a framework agreement, which is to be classified as transactions with a related party in accordance with § 111a Sub-Para 1 and 3 of the German Stock Corporation Act,

on the basis of the decision-making power granted to it in the plenary session. The subject of further meetings was the continual examination of the cooperation with the companies of the Busch-Group, in particular in the area of IT. It was determined that, except for the Master Service Agreement, the relevant threshold for legal transactions requiring approval in accordance with § 111b of the German Stock Corporation Act was not met in the 2022 fiscal year.

The RPT Committee also dealt in detail with the dependency report for 2021, which was audited by the auditor, and discussed this report with the Management Board.

After the principal shareholder announced its intention to seek a control and profit and loss transfer agreement with Pfeiffer Vacuum Technology AG, the Committee focused on this intention.

The Nomination Committee held one meeting in the reporting year, in which it discussed the prospects regarding the future composition of the Supervisory Board.

Due to the pandemic, all meetings of the Supervisory Board committees in the year under review were held by video conference.

Attendance at the meeting

During fiscal year 2022, each Supervisory Board meeting was attended by all members of the Supervisory Board, and all members of committees also attended every meeting of the committees to which they belong. Accordingly, as in the previous year, the attendance rate of all Supervisory Board members at the plenary sessions and committees was 100 % too in the reporting year.

Corporate Governance

As a listed company, Pfeiffer Vacuum Technology AG is subject to the obligation pursuant to § 161 Sub-Para.1 of the German Stock Corporation Act ("AktG"). According to this, the Management Board and the Supervisory Board have to declare annually that the recommendations of the German Corporate Governance Code have been, and will be, complied with or which recommendations have not been, or will not be, applied and if so, why not. The Supervisory Board recognizes the principles of good corporate governance and also addressed this issue in fiscal year 2022. An essential basis for this is the extensive recognition and observance of the recommendations of the German Corporate Governance Code (GCGC). The Management Board and Supervisory Board issued the regular corporate governance declaration of compliance on November 4, 2022. This is available on the Company's website and is also an integral part of the corporate governance declaration.

According to Recommendation E.1 of the German Corporate Governance Code, every member of the Supervisory Board must disclose any conflicts of interest immediately. In the year under review, there were no reasons to disclose actual or potential conflicts of interest. In November 2019, the Supervisory Board already set up a special committee, known as the RPT Committee, of which Ms. Ayla Busch is

not a member, to deal with the potential conflict of interest in the person of Ms. Ayla Busch which could arise when advising and monitoring the Management Board with regard to legal transactions with companies in the Busch Group and when implementing the Relationship Agreement concluded with Busch SE for related party transactions.

Annual and consolidated financial statements, audit of financial statements, dependent company report

Following preparatory discussions in the Audit Committee, PricewaterhouseCoopers GmbH, Wirtschaftsprüfungsgesellschaft, Frankfurt am Main, was commissioned to audit the annual financial statements and the consolidated financial statements of the Company, prepared in accordance with IFRS for the 2022 fiscal year and, to the extent required by law, of the subsidiaries. Pursuant to § 315e of the German Commercial Code, the Company did not prepare consolidated financial statements presented in accordance with the rules of the German Commercial Code. PricewaterhouseCoopers GmbH was also commissioned to audit the non-financial statement ("Sustainability Report 2022") as part of the combined Management Report 2022. Before assigning the audit mandates, the audit committee satisfied itself of the independence of the auditors on the basis of the declaration of independence issued for this purpose.

The Audit Committee and the auditor defined, amongst others, the following key audit points: business processes, risk and control awareness of management (management fraud); realization of sales revenues; inventories and valuation of inventories; valuation and completeness of provisions; pension provisions; current and deferred taxes; impairment test (IAS 36); capitalization of development costs (IAS 38); IT costs,/capitalization/taxation; completeness of the disclosures in the IFRS Appendix; risk and forecast reporting;

dependency report and cooperation agreement with Busch; remuneration reporting as well as financial and non-financial KPIs. As in previous years, the following were determined as key audit matters: the goodwill recognized and the valuations of investments in affiliated companies. A fixed schedule was agreed upon with the committee chair for communication purposes.

It has been agreed with the auditor (i) that it will inform the Audit Committee immediately of all findings and occurrences that are essential for its duties and that come to its knowledge during the course of the audit, and (ii) that it will inform the Audit Committee and record in the audit report notes if, during the audit of the financial statements, it discovers facts that indicate that the declaration made by the Management Board and the Supervisory Board in relation to the German Corporate Governance Code is incorrect.

The Annual Financial Statements and Management Report as well as the Consolidated Financial Statements in accordance with IFRS, together with the Combined Management Report, all for the 2022 fiscal year, were audited by the independent auditor and received his unqualified endorsement.

Pursuant to § 315b of the German Commercial Code ("HGB"), the Company has prepared the non-financial group report ("Sustainability Report 2022") as part of the Combined Management Report for the 2022 fiscal year. The Supervisory Board reviewed the content of the non-financial statement with the support of PricewaterhouseCoopers GmbH, Wirtschaftsprüfungsgesellschaft, Frankfurt am Main, as part of an audit to obtain limited assurance in accordance with the International Standard on Assurance Engagement (ISAE) 3000 (Revised). The audit did not reveal any facts that would have led the auditing firm to conclude that the non-financial group statement of Pfeiffer Vacuum

Technology AG for the period from January 1 to December 31, 2022, had not been prepared, in all material respects, in accordance with § 289c HGB and § 315c of the German Commercial Code ("HGB").

In the audit opinion, the non-financial group statement is identified as other information within the meaning of ISA 720 (revised). At its meeting on March 14, 2023, the Supervisory Board approved the non-financial group statement for the 2022 fiscal year.

The Annual and Consolidated Financial Statements, the Combined Management Report and the audit reports were submitted to all members of the Supervisory Board members in a timely fashion. They were first discussed, by way of preparation, in detail by the Audit Committee on March 9, 2023 and then on March 14, 2023 by the Supervisory Board at their respective meetings relating to the financial statements. Representatives of the auditors were present to report on the major findings of the audit and were available to answer questions. On the basis of its own thorough review, the Supervisory Board concurred with the results of the audit conducted by the independent auditor. Given the concluding results of its review, the Supervisory Board raised no objections to the Annual and Consolidated Financial Statements. It approved the Annual and Consolidated Financial Statements. The Annual Financial Statements were thus formally adopted. The Supervisory Board discussed in detail with the Management Board its proposal regarding the distribution of a dividend and then concurred with the Management Board's proposal regarding appropriation of the Company's retained earnings.

Additionally, the Management Board of Pfeiffer Vacuum Technology AG has drawn up a report on the Company's relationships with affiliated companies for the fiscal year 2022 ("dependency report") in accordance with § 312 of the German Stock Corporation Act ("AktG") and afterwards presented this report to the Supervisory Board for review.

PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft, Frankfurt am Main, has audited the dependency report and issued the following auditor's report:

"According to our professional audit and judgment, we confirm that:

1. the actual disclosures in the report are correct,
2. the Company's payment for legal transactions as included in the report was not unreasonably high
3. the measures listed in the report do not indicate any circumstances for a materially different assessment than the one made by the Management Board."

The Management Board's dependency report as well as the related auditor's report were submitted to the Supervisory Board. The Supervisory Board reviewed both the Management Board's dependency report as well as the auditor's report. Final review was made in the Supervisory Board meeting on March 14, 2023. The independent auditor attended this meeting, reported on the audit of the dependency report and the major findings of his audit, explained his audit report and was available to answer questions from the Supervisory Board. After the final review, the Supervisory Board concurred with the dependency report of the Management Board and the audit report of the auditor and had no objections against the declaration of the Management Board concerning relations with affiliated companies at the end of the dependency report.

Remuneration report

At the beginning of 2023, the Supervisory Board dealt with the preparation of the remuneration report 2022 and adopted this report jointly with the Management Board. The remuneration report was issued with a separate audit endorsement by the auditor and will be presented to this year's Annual General Meeting of the Company for approval.

Acknowledgements

The Supervisory Board would like to sincerely thank the Management Board, the Employee Council and the entire staff of the Group for their dedication and commitment in the successful 2022 fiscal year.

Adoption of this Report

The Supervisory Board adopted this Supervisory Board Report in the resolution dated March 14, 2023 pursuant to § 171 Sub-Para 2 of the German Stock Corporation Act ("AktG").

Aslar, Germany, March 14, 2023

On behalf of the Supervisory Board

Ayla Busch

Ayla Busch
(Chairwoman of the Supervisory Board)

Share Performance

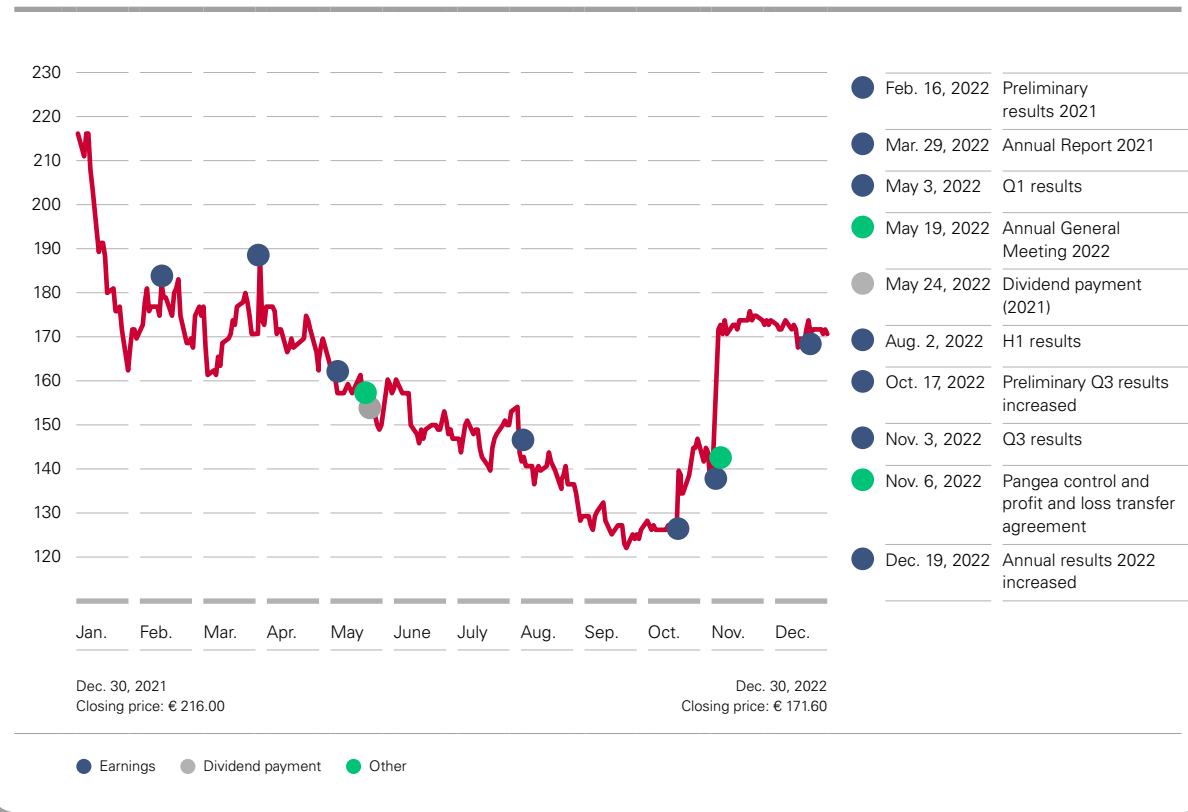
Share price development in the year 2022

The Pfeiffer Vacuum Technology AG (Pfeiffer Vacuum) share started the trading year on January 3, 2022 at a daily closing price of € 211.00 and reached the highest daily closing price for the year of € 216.00 on January 4 and 5, 2022. The lowest daily closing price of the share of € 123.20 was reached on September 23, 2022. It closed the year at a share price of € 171.60.

During the first three quarters of 2022, the share price development was influenced in particular by the war in Ukraine, inflation, rising interest rates and disrupted supply chains. The Pfeiffer Vacuum share traced a similar trajectory to the small-cap index SDAX and the technology index TecDAX, for example, by following a slight downward trend. During this period, demand in the vacuum market remained very high. In each of the first three quarters, demand for Pfeiffer Vacuum products achieved record levels. Nevertheless, the stock was under pressure. In addition to general market influences, this was also attributable to an increasing number of industry and financial analysts expecting an imminent slow-down in demand in the semiconductor market and that a recession in the global economy is possible or likely.

SHARE PRICE DEVELOPMENT OF PFEIFFER VACUUM IN 2022

in €



This was ultimately followed by a sharp jump in the price of Pfeiffer Vacuum shares in the fourth quarter. The reason for this was the announcement that Pangea GmbH was seeking a control and profit and loss transfer agreement.

In the first weeks of the first quarter of 2022, Pfeiffer Vacuum shares reached their high for the year of € 216.00. At the end of the first quarter of 2022, the share price stood at € 173.60. The share price also remained under pressure at the end of the first half of the year, ending on June 30, 2022, with a daily closing price of € 150.00.

The decline in price seen in the first half of the year also continued at the beginning of the second half of 2022. This downward trend could be seen until the end of September 2022. The share price did not rise again until October 18, 2022, after Pfeiffer Vacuum once again raised its sales expectations for the full 2022 fiscal year. After the announcement was made on November 6, 2022, that Pangea GmbH was seeking a control and profit and loss transfer agreement, the share price rose by 25.1 % within one day to close at € 172.60. The year-end share closing price for 2022 on December 30, 2022 was € 171.60.

In terms of the full year, Pfeiffer Vacuum shares declined by 20.6 % compared to year-end 2021. The TecDAX and SDAX benchmark indices recorded a decline of 25.5 % and 27.4 %, respectively.

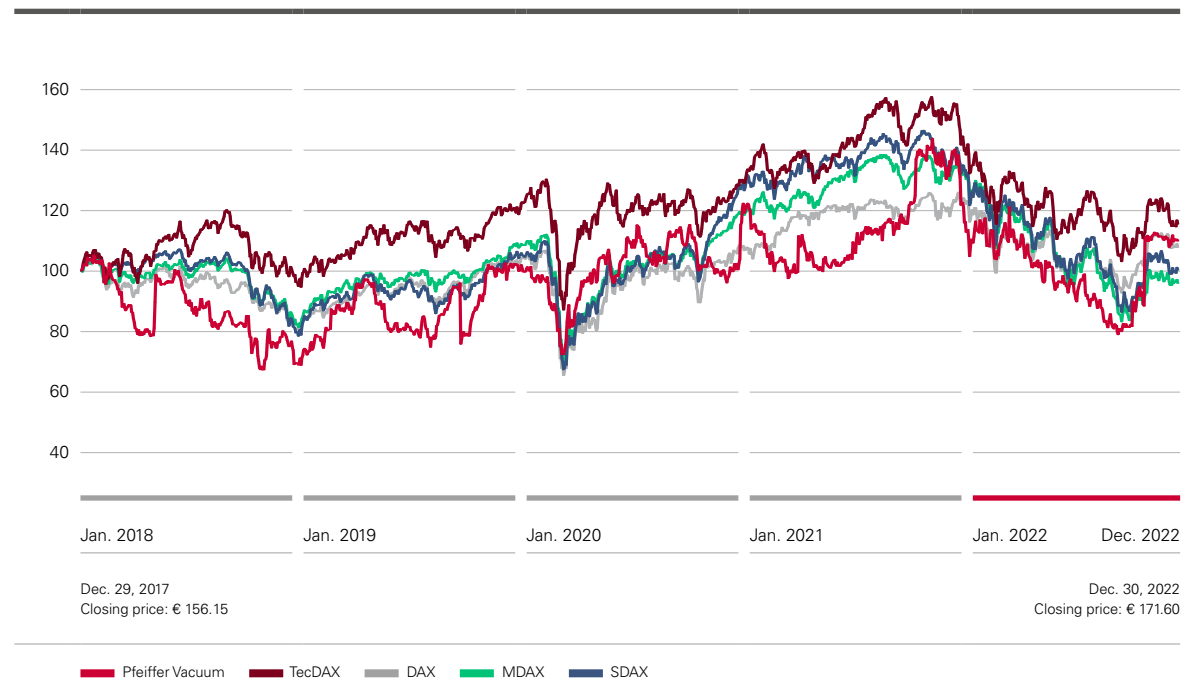
The Pfeiffer Vacuum share is listed in numerous European and international indices. The average daily XETRA trading volume was 3,592 shares in 2022. The Pfeiffer Vacuum share continues to be listed in the SDAX.

Dividend proposal of € 0.11 per share

Against the background of continuing and further increased scale of the investment program and the resulting increase in liquidity requirements, the Management Board is proposing a reduced dividend of € 0.11 per share (previous year: € 4.08 per share) for fiscal 2022. This would result in a total pay-out of € 1.1 million (previous year: € 40.3 million). The Management Board is convinced that it is essential to continue to implement the investment program, irrespective of economic cycles, in order to strengthen Pfeiffer Vacuum's market position over the medium and long term.

RELATIVE SHARE PRICE DEVELOPMENT OF PFEIFFER VACUUM, TECDAX, DAX, MDAX UND SDAX BETWEEN 2018 AND 2022

in %

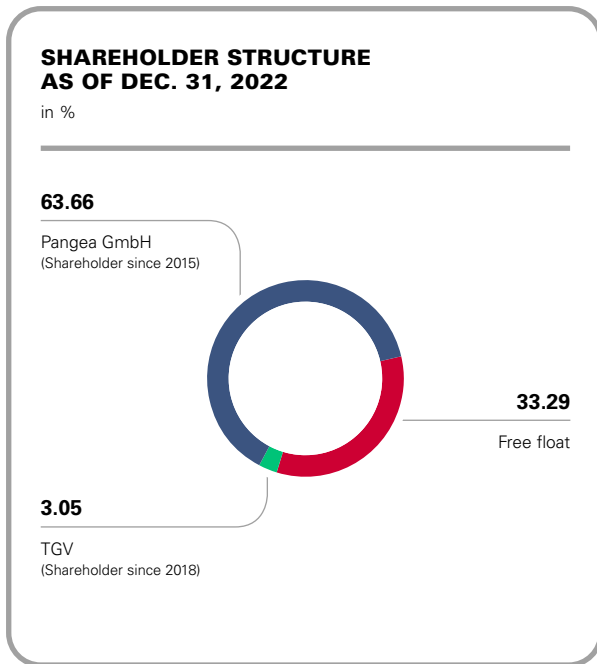


Broadly diversified investor structure and anchor investor with sector expertise

With Pangea GmbH, the family-owned investment company of the international vacuum group Busch SE, Pfeiffer Vacuum has a long-term oriented anchor shareholder. Shareholders

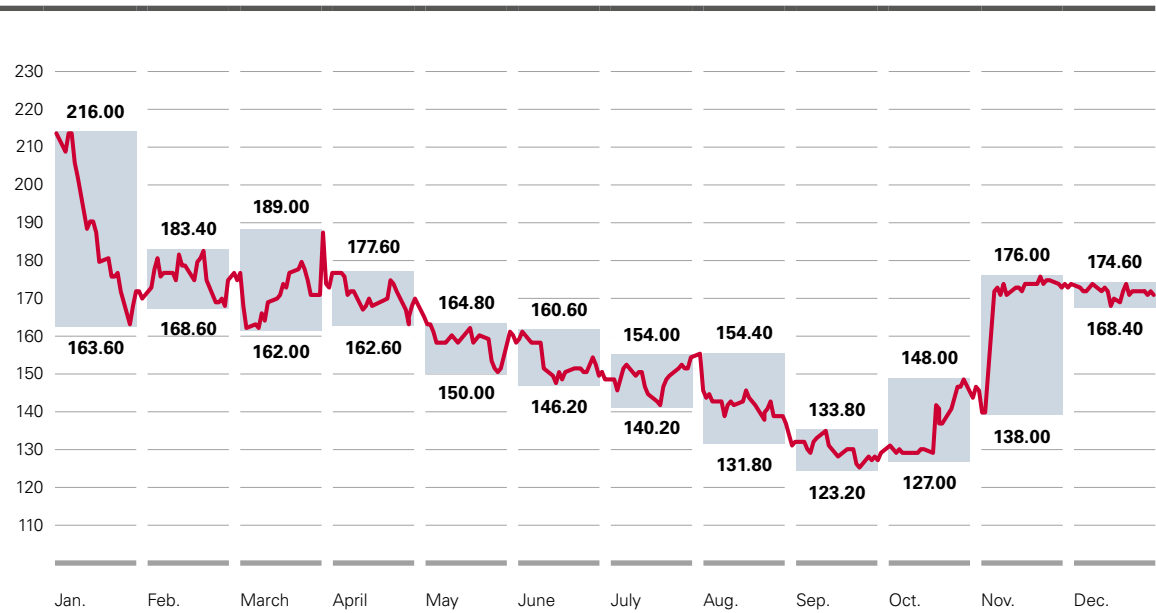
with other noteworthy shares are the Investmentaktiengesellschaft für langfristige Investoren TGV (TGV). Both shareholders are based in Germany.

A multitude of further investors, including insurance companies, pension funds, investment advisors and family offices, ensure a structurally broad diversification. By geographic region, the investment volume in million euros of institutional investors based in North America is particularly high at almost 40 %, followed by Germany at around 20 % and Norway at around 15 %. Institutional investors based in other European countries hold around 25 % of the institutional investment volume. In other regions of the world, share ownership lies well below 5 %.¹



MONTHLY HIGHS AND LOWS OF THE PFEIFFER VACUUM SHARE IN 2022

in €



Dec. 30, 2021
Closing price: € 216.00

Dec. 30, 2022
Closing price: € 171.60

Good analyst coverage

As a SDAX company, Pfeiffer Vacuum regularly receives international attention and comprehensive support from approximately five analysts. Regular analyst studies are available to investors to build an informed opinion.

Additional well-known buy-side analysts from international fund companies and insurance companies analyze Pfeiffer Vacuum's financial results for their own investment opportunities. These analysts often have in-depth knowledge of peer groups and Pfeiffer Vacuum customers.

¹ Source: FactSet report dated Dec. 31, 2022

Pfeiffer Vacuum is anytime available for its stakeholders and values an exchange of opinions and market assessments. We want to establish a sound pool of knowledge with our shareholders, investors and analysts and continue to develop it further through external and internal perspectives of markets, technologies and projects.

PFEIFFER VACUUM ANALYSTS

As of January 4, 2023

Bank	Analyst
DZ Bank	Armin Kremser
Jefferies International	Martin Comtesse
Kepler Cheuvreux	Craig Abbott
Oddo BHF	Melek Laabidi
Stifel	Adrian Pehl

Comprehensive investor relations activities: member of the industry association DIRK¹

With a broad range of investor relations activities, we always strive for open, transparent communication about the development of Pfeiffer Vacuum. As a member of the German Investor Relations Association (DIRK), Pfeiffer Vacuum is committed to adhering to the standards for transparent communication with shareholders. Conference calls with members of the Management Board took place on a quarterly basis to explain business results.

In dialogue with investors and analysts, the Management Board receives regular feedback on the Company's strategy and performance. A long-term orientation and continuity are crucial success factors for sustainable, successful relationship management with stakeholders. All stakeholders take the center stage of any activity focused on their needs.

The Annual General Meeting took place on May 19, 2022 in Frankfurt as a virtual event. Taking into account postal votes, 81.17 % of the registered share capital was represented at the Annual General Meeting. In 2021, 82.01 % attended the Annual General Meeting.

With their votes, a large majority of the shareholders agreed with the proposals of the management. Ahead of the Annual General Meeting, the shareholders were able to download all relevant documents, as well as the ballot sheet, from our website. In addition, a broad information offering was available in the menu item "Annual General Meeting".

PFEIFFER VACUUM SHARE DATA

		2022	2021	2020	2019	2018
Share capital	in € millions	25.3	25.3	25.3	25.3	25.3
Number of shares issued	in units	9,867,659	9,867,659	9,867,659	9,867,659	9,867,659
Highest trading price	in €	216.0	224.50	180.00	160.00	164.20
Lowest trading price	in €	123.20	150.66	112.90	107.30	105.00
Trading price at year-end	in €	171.60	216.00	156.80	159.00	108.70
Market capitalization at year-end	in € millions	1,693.29	2,131.41	1,547.25	1,568.95	1,072.62
Dividend per share	in €	0.11 ¹	4.08	1.60	1.25	2.30
Earnings per share	in €	8.75	6.28	3.20	4.90	6.98
Price/earnings ratio		19.6	34.4	49.0	32.4	15.6
Free float ²	in %	36.34	37.04	37.04	39.78	49.98

¹ Subject to the approval of the Supervisory Board and the Annual General Meeting

² According to the definition of Deutsche Börse

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Combined Management Report

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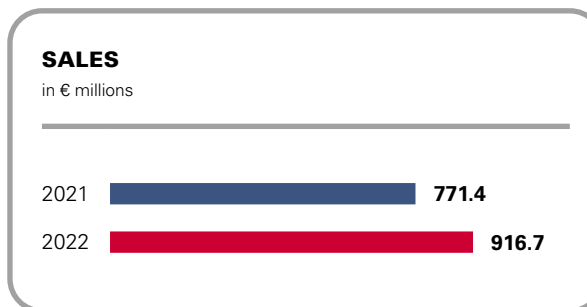
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The following Management Report is a combined Management Report according to 315a Sub-Para 5 of the German Commercial Code (“HGB”) as the future opportunities and risks of the Pfeiffer Vacuum Group and its parent Company, Pfeiffer Vacuum Technology AG, are inseparably connected.

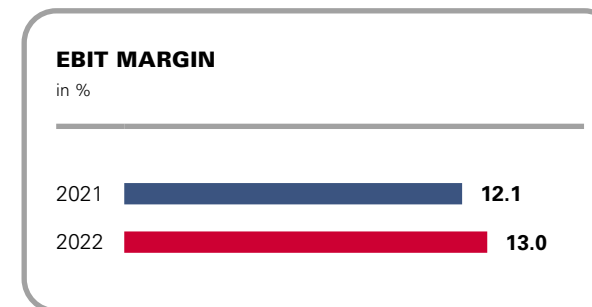
The Year 2022 at a Glance

The global situation concerning the availability of semi-conductors and the ensuing shortage also characterized the year 2022. The importance of semiconductor technology is evident for modern society and its continuing development and resulted in a strategic realignment in 2022. In the long term, for example, the USA and the EU are endeavoring to reduce the dependencies that exist in the development and manufacture of semiconductors, which will lead to significant additional investments during the years 2024 to 2028. The situation in the semiconductor industry therefore also played a decisive role overall in the development of Pfeiffer Vacuum in 2022.

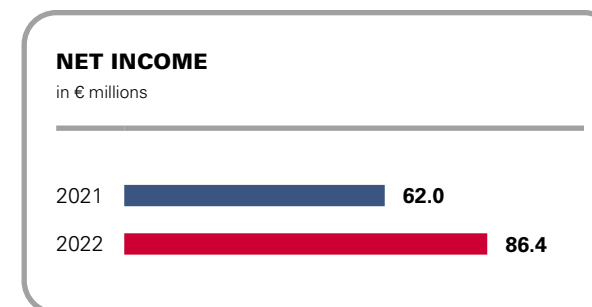
Furthermore, the other markets served by Pfeiffer Vacuum in 2022 also enjoyed gratifying sales growth and thereby contributed almost equally to the pleasing **sales development**. Following the previous year's record sales of € 771.4 million, sales of € 916.7 million were achieved in 2022. This growth of € 145.3 million or 18.8 % meant that the highest ever recorded sales in the Company's history were achieved. Last year's forecast report formulated the prospect of an at least 5 % increase in sales. The high level of demand then led overall to the fact that we were able to exceed this target and even surpass the recently forecast level of sales of € 900 million.



Against the backdrop of a renewed improvement in sales, **profitability** again developed positively overall in 2022. Following € 93.1 million in 2021, an operating profit of € 119.4 million was achieved in the reporting year, which corresponds to growth of 28.2 % and also represents a record figure. The operating profit achieved corresponds to an operating profit margin or EBIT margin of 13.0 % (previous year: 12.1 %). The overall gratifying development can be attributed to a diverse range of opposing factors. The main drivers of this were positive economies of scale, cost rises in procurement markets, burdens on earnings from more intensive management of supply chains, increased personnel costs and operating expenses in connection with the continued expansion of the global IT infrastructure, but also effects from the development of exchange rates. The slight improvement in margins anticipated in last year's forecast report based on a modest improvement in sales was thus ultimately achieved, even if the development over the course of the overall year was not uniform. As forecast, operating profit also increased in absolute figures.



With a virtually consistent financial result and a reduced tax ratio compared to the previous year, net income was € 86.4 million. Compared to the previous year (€ 62.0 million), this again represented a very substantial increase of € 24.4 million or 39.3 %.



The **financial position** of the Pfeiffer Vacuum Group showed an increase in total assets from € 707.9 million to € 863.7 million. On the assets side, this development was attributable in particular to the rise in inventories and receivables and the increase in property, plant and equipment as a direct consequence of the strategic investment programs. By contrast, cash and cash equivalents declined from € 99.4 million to € 67.8 million. Equity increased again compared to the previous year and, after € 459.4 million at the end of 2021, now amounted to € 531.4 million on December 31, 2022. This results in a continuing high equity ratio of 61.5 % at the end of the year under review (previous year: 64.9 %). Financial liabilities were taken out in particular to finance the operating business and the investment program. After € 18.2 million as of December 31, 2021, these amounted to € 76.0 million at the end of the reporting year.

Despite the substantial improvement in the operating profit, the **operating cash flow** decreased in the year under review. This was due in particular to an increase in inventories and receivables which, even after consideration of the increased liabilities, led overall to this outcome. Following € 91.6 million in the previous year, an operating cash inflow of € 47.0 million was thus achieved in 2022. At € 80.8 million, capital expenditures in 2022 were higher than in the previous year (€ 41.6 million). The sustained high demand momentum again prompted us to bring forward investments wherever possible and available on the market. Accordingly, we exceeded the originally forecast investment volume ("significantly above the 2021 levels").

These developments were funded by incurring financial liabilities (€ 58.6 million) which, together with the dividend payment of € 40.3 million to shareholders, were main elements of the cash flow from financing activities.

The profitability, financial position and liquidity continue to reflect a fundamentally sound Company. Pfeiffer Vacuum has again significantly increased sales revenues and profits and exhibits only very low net indebtedness. The equity ratio declined only slightly despite the substantial increase in the total assets, and the liquidity situation affords ample room for maneuver. These are necessary criteria for implementing the growth strategy which the Group initiated and – as can be seen from the favorable development – has already implemented in part. The goal is, and continues to be, the positive further development of Pfeiffer Vacuum for the benefit of all stakeholders in 2023 and beyond.

The Pfeiffer Vacuum Group

CORPORATE PROFILE

Since 1890, and thus for more than 130 years now, we have been developing, producing and selling a comprehensive product portfolio in the vacuum technology sector and also offering after-sales service worldwide. Since the invention of the turbomolecular pump more than 50 years ago, we have been one of the world's leading suppliers of vacuum solutions. Our product portfolio ranges from hybrid and magnetically levitated turbomolecular pumps as well as backing pumps and measurement and analysis equipment right up to complex vacuum systems.

We manufacture our high-tech products at a total of ten locations in Europe, Asia and North America. The Group currently has over 20 sales and service companies. With their expertise and commitment our employees meet the requirements of our customers from our sales markets in Semiconductor and Emerging Technologies as well as in Analytics, Industry and Research & Development.

With demand once again showing very strong dynamics in the past fiscal year 2022, Semiconductor and Emerging Technologies was once again the strongest market for Pfeiffer Vacuum in terms of generated sales revenues. It was followed by the Industry, Analytics and R&D market.

Global customer proximity with manufacturing, sales and service locations worldwide

In Germany, Pfeiffer Vacuum manufactures in Asslar as well as in Göttingen and Dresden. Within Europe, there are also production sites in Annecy, France, and Cluj, Romania. In Asia, we are represented by production sites in Asan in the Republic of Korea, in Ho Chi Minh City, Vietnam, and also in Wuxi, China. In the USA, there are production sites in Indianapolis and Yreka. In addition, we are present with our own sales and service branches at more than 20 locations around the globe. Globally, 3,935 employees (December 31, 2022) are engaged in taking Pfeiffer Vacuum another step forward each day.

Markets and market position

Products from Pfeiffer Vacuum are used in numerous industries. Our customers in every region and every sector trust in the reliability of our products. In terms of the overarching industrial sector, Pfeiffer Vacuum divides these customers into the markets Semiconductor and Emerging Technologies or Industry, Analytics and Research & Development (R&D). Overall, we consider ourselves to be number two in the world market in the markets we serve.

Pfeiffer Vacuum's products and solutions are used in key markets of the future. Already today, many innovative processes, such as in nanotechnology, in the manufacture of LEDs or in research, are inconceivable without the use of vacuum technology. Technological progress resulting from research and development activities in these fields of technology leads to new products and manufacturing processes. The dynamic development of people's private and

professional communication behavior is leading to ever new applications based on new technologies in the semiconductor industry.

The increasing demand for energy combined with the need to conserve resources is changing the way energy is generated and thus frequently also necessitates the use of vacuum technology. Research into energy generation through nuclear fusion is one example of this.

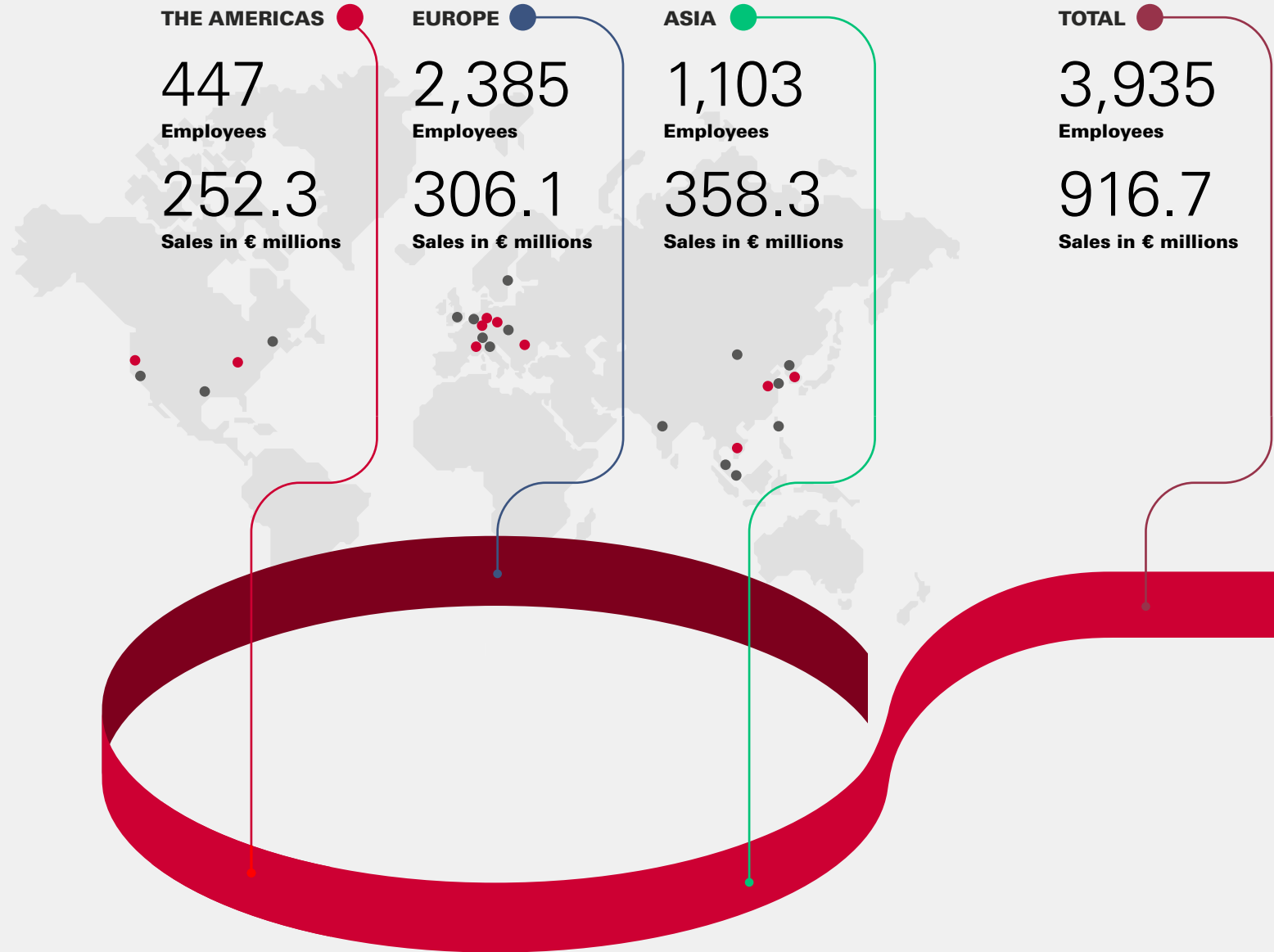
These, as well as other social and industrial trends offer Pfeiffer Vacuum additional sales opportunities. One of our strengths is that we serve different markets and are therefore not dependent on developments in individual market segments. Again in fiscal 2022, we recorded a renewed, very positive development in demand and sales in all the markets we serve, with the demand dynamic in the semiconductor industry being particularly strong. Thus, sales for the year 2022 showed a significant increase of 18.8 % overall.

Semiconductor and Emerging Technologies

Our vacuum solutions are used in the semiconductor industry for the production of microprocessors and storage media. Customers in this industry predominantly use a large number of medium and large backing pumps, but also turbomolecular pumps as well as measurement instruments. With our contamination management systems, chip manufacturers can significantly increase their yield.

Locations and Employees worldwide

- Production
- Sales and Services



A key growth driver in the semiconductor industry is the rapid development of communications technology. Our semiconductor customers are mainly located in Asia, the USA and, to a lesser extent, Europe. In addition, we have assigned our customers from emerging markets such as LED, OLED, flat screen and solar to the Emerging Technologies segment.

Industry, Analytics and Research & Development (R&D)

The heterogeneous group of industry customers who require our vacuum solutions for certain stages of their production have been brought together into this segment. Industrial trends such as quality improvement, energy saving and generation, electromobility as well as environmental protection are opening up new fields of application. Examples of uses include metallurgy, tube production, air conditioning and refrigeration technology as well as solar thermal technology. Furthermore, customers from the coating market who are active in fields such as manufacturing and refinement of architectural glass or tool coating have also been assigned to this segment. Furthermore, it includes customers from the analytics industry, where OEMs (original equipment manufacturers) constitute the largest customer group. These are suppliers of industrial plants or analytical instruments. Complex analytical devices such as scanning electron microscopes are primarily used for industrial quality assurance.

This sector is characterized in particular by megatrends in the fields of life science, biotechnology and security. Ever smaller and lighter portable analyzers are needed in environmental technology, security technology or for medical technology. The analytics industry therefore primarily requires small and medium-sized turbopumps, backing pumps and measurement instruments. Finally, our customers from the

research & development sector are also assigned to this market segment.

Cooperation with research institutes has a long tradition at Pfeiffer Vacuum. Whether physics or chemistry laboratories at universities or renowned research institutions – they utilize our pumps, mass spectrometers, leak detectors or vacuum solutions. In close cooperation with research institutions in Europe, the USA and Asia, new applications are constantly emerging, for example in the field of energy generation or healthcare technology.

COMPANY STRATEGY

Customers and market focus as a basis for growth

In the previous year, Pfeiffer Vacuum conducted a systematic analysis of the market to identify the future vacuum solution requirements of its customers and upcoming market developments. This analysis confirmed Pfeiffer Vacuum's growth potential.

The results were used to define packages of focus measures for each market segment which can be strategically addressed in future to accelerate the positive development of the Company. Detailed strategies were developed for the different functional areas to support the Company's growth course. These were further developed, planned or already partially implemented in 2022. The goal remains to realize Pfeiffer Vacuum's medium- and long-term growth potential. In all areas, Pfeiffer Vacuum will align itself more closely than before with the needs of its customers and the markets it serves.

Our goal is and remains to achieve sales of more than one billion euros in the medium and long term.

Market share and sales should increase

Pfeiffer Vacuum's guiding principle is to always place our customers at the focus of our actions in every area of the Company – from developing and manufacturing our products right up to our after-sales service. In view of the Company's global presence, we are able to serve our customers' needs directly where they are. In the coming years, we intend to further expand and modernize our production facilities around the globe, so we can continue to be close to our customers in future and respond quickly to their needs.

Pfeiffer Vacuum has set itself the goal of significantly increasing the market share in the global vacuum industry. The market position is to be strengthened through growth based on a clear customer and market strategy, and through new, innovative products and solutions and a range of services geared to serve its customers' needs.

Pfeiffer Vacuum develops, produces and markets quality and technologically sophisticated vacuum solutions. The Company sees itself as a quality market leader and has a long-term strategic goal to sell its products through quality, not price, and in particular by placing the focus on customer proximity in all areas. Pfeiffer Vacuum therefore works more closely than ever with its customers to help them develop technologies for the future. These close ties enable us to evolve innovative vacuum solutions for the market even more efficiently and thus accelerate the market acceptance of our products.

Our mid- to long-term goals



increase our
market share



drive
sustainability



grow sales to
€ 1 billion



Customer Centricity

Our customers are the center of everything we do. By focusing on their demands and requirements, we will reach our strategic goals.

This sales strategy also includes emphasizing the long-term cost advantages over the life of a Pfeiffer Vacuum product (the total cost of ownership) for customers. These advantages result, among other things, from lower maintenance and repair costs, longer service lives and, above all, lower energy consumption in comparison with rival products. Pfeiffer Vacuum's strategy is clearly focused on further growth. In this context, the Company's global presence must be tailored to the needs of our customers. The focus is particularly on the Asian region, as high investments are expected to continue there, leading to strong demand for vacuum products of local origin. Pfeiffer Vacuum will benefit from the megatrends in its markets today and in the future.

These trends include, for example, digitalization, the expansion of renewable energies, electromobility or ever larger, high-resolution displays. The rapid developments in the life science industry, nanotechnology and the security industry offer additional growth opportunities. Pfeiffer Vacuum will do its utmost to be a strong partner to our customers implementing these new technologies. EBIT margin should increase medium- to long-term together with sales and the closing of the investment gaps. To further drive Pfeiffer Vacuum's dynamic development, between € 30 and lately more than € 80 million have been invested annually over the past three years. These funds were used, among other things, to expand and modernize production capacities. Due to the rapid increase in demand from our customers in the years since 2021, we are reaching the limits of our current production capacity in some areas (2021), respectively the limits of our supply chain (2022).

For this reason, we are continuing to plan higher investments in order to further expand our current, as well as medium- and long-term, capacities to enable planned growth and shorten delivery times. Production capacities will be expanded particularly where there is increased demand for the products manufactured there. But expansion will also be based on the geographical location of customer demand. In 2022, investments in all regions and locations focused on the short-term expansion of machine capacity. In 2022, investments were also made for long-term capacity expansions, particularly in South Korea, Vietnam and Romania. Spending on new IT projects will also increase in the coming years compared to fiscal year 2022. The primary goal is to achieve operational efficiency through a globally integrated digital infrastructure.

MANAGEMENT SYSTEM

Tight control through annual sales and profitability targets

The Management Board of Pfeiffer Vacuum Technology AG assumes responsibility for the strategic leadership of the Corporate Group. The Management Board is supported by the Executive Committee, which consists of the Chief Financial Officer, the Chief People and Culture Officer, the Chief Sales Officer and the Chief Technology Officer. All Group companies are managed by the Management Board and the global organization by setting annual sales, profitability and qualitative strategy targets (management by objectives). The most relevant key figures in this context in 2022 were sales, operating profit, and the operating profit margin or EBIT margin. All subsidiaries in the Group are responsible in principle for all market segments, continue to have self-directed management and essentially make their own decisions within central guidelines and strategic targets on how to attain the defined targets (sales, operating profit and operating profit margin). The supervisory bodies of the subsidiaries, including the members of the Management Board of Pfeiffer Vacuum Technology AG and the global organization, must be involved in major decisions.

Target achievement is measured through detailed target/actual comparisons and variance analyses as part of the monthly reporting system, which is supplemented by market information. This shall ensure that undesirable developments can be identified and corrected at an early stage. In addition, monthly conference calls and virtual conferences with the management of the operating subsidiaries shall ensure that all business development issues are discussed. In addition, face-to-face meetings are held by Group management and the global organization with

staff at the local site. As a result of the coronavirus pandemic, virtually all meetings and conferences previously held physically have been held almost exclusively as online conferences since 2020. It should be noted that, from 2022 onwards, an appropriate number of physically attended events have also been held again.

In countries in which Pfeiffer Vacuum is not represented directly through a subsidiary, sales targets are agreed with the local distribution partner. Here, too, the achievement of sales targets is measured by means of target/actual comparisons. A further steering instrument is the variable remuneration of the local management of the foreign subsidiaries and the sales staff. This sensitizes employees to cost structures, and thus to the long-term success of the Company, even if they do not work in areas of the Company which have a direct influence on sales.

GROUP STRUCTURE

Pfeiffer Vacuum – global presence

As of December 31, 2022, the Pfeiffer Vacuum Group comprises a total of 32 companies (previous year: 31). Besides Pfeiffer Vacuum Technology AG, Asslar, Germany, as the parent Company of the Group, central roles in the Corporate Group are adopted by Pfeiffer Vacuum GmbH, Asslar, Germany, and Pfeiffer Vacuum SAS, Annecy, France.

Pfeiffer Vacuum GmbH is responsible for the development and production of all Pfeiffer Vacuum Products as well as for sales in Germany, and central investment management for the Group. This company had a total of 951 employees as of December 31, 2022 (December 31, 2021: 887). To a certain extent, Pfeiffer Vacuum SAS is the French counterpart to Pfeiffer Vacuum GmbH. The company employed 819 people at year-end (December 31, 2021: 749), is the central development and production facility for the semiconductor market and is responsible for sales in France. With a total of 1,770 employees, these two companies employ almost half of the Group's workforce of 3,935 (as of December 31, 2022).

Further Group companies with their own production facilities that are of mention here are Pfeiffer Vacuum Components & Solutions GmbH, Dreebit GmbH, Pfeiffer Vacuum Korea Ltd. (formerly: Pfeiffer Vacuum Semi Korea Ltd.) Pfeiffer Vacuum Romania S.r.l., Nor-Cal Products, Inc. and Pfeiffer Vacuum Inc., Nor-Cal Products Viet Nam Co., Ltd. as well as Pfeiffer Vacuum (Wuxi) Co., Ltd.

The other active Group companies are legally independent corporations that perform sales and service tasks. In legal terms, all companies are essentially organized in a legal form comparable to the German limited liability company (GmbH). In addition, there are companies that perform intra-Group service or holding functions. These include, first and foremost, Pfeiffer Vacuum Technology AG.

The complete structure of the Group as of December 31, 2022 is as follows:

THE PFEIFFER VACUUM CORPORATE GROUP AS OF DEC. 31, 2022

	Headquarters	Equity Share (in %)
Pfeiffer Vacuum Technology AG	Germany	
Pfeiffer Vacuum GmbH	Germany	100.0
Pfeiffer Vacuum Austria GmbH	Austria	100.0
Pfeiffer Vacuum (Schweiz) AG	Switzerland	100.0
Pfeiffer Vacuum (Shanghai) Co., Ltd.	China	100.0
Pfeiffer Vacuum (India) Private Ltd.	India	27.0 ¹
Pfeiffer Vacuum Ltd.	United Kingdom	100.0
Pfeiffer Vacuum Scandinavia AB	Sweden	100.0
Pfeiffer Vacuum Singapore Pte. Ltd.	Singapore	100.0
Pfeiffer Vacuum Taiwan Corporation Ltd.	Taiwan	100.0
Pfeiffer Vacuum Benelux B. V.	Netherlands	100.0
Pfeiffer Vacuum (Xi'an) Co., Ltd.	China	100.0
Pfeiffer Vacuum Malaysia SDN. BHD.	Malaysia	100.0
Pfeiffer Vacuum (Wuxi) Co., Ltd.	China	100.0
Pfeiffer Vacuum Shared Services GmbH	Germany	100.0
Goldfish IT GmbH	Germany	100.0
Pfeiffer Vacuum Inc.	USA	100.0
Pfeiffer Vacuum New Hampshire Realty Holdings, LLC.	USA	100.0
Pfeiffer Vacuum Indiana Realty Holdings, LLC.	USA	100.0
Nor-Cal Products Holdings, Inc.	USA	100.0
Nor-Cal Products, Inc.	USA	100.0
Nor-Cal Products Viet Nam Co., Ltd.	Vietnam	100.0
Nor-Cal Products Korea Co., Ltd.	Republic of Korea	100.0
Nor-Cal Products Asia Pacific Pte. Ltd.	Singapore	100.0
Pfeiffer Vacuum California Realty Holdings, LLC.	USA	100.0
Pfeiffer Vacuum Holding B. V.	Netherlands	100.0
Pfeiffer Vacuum Italia S. p. A.	Italy	100.0
Pfeiffer Vacuum (India) Private Ltd.	India	73.0 ¹
Pfeiffer Vacuum Korea, Ltd.	Republic of Korea	11.9 ²
Pfeiffer Vacuum Components & Solutions GmbH	Germany	100.0
Pfeiffer Vacuum SAS	France	100.0
Pfeiffer Vacuum Romania S. r. l.	Romania	100.0
Pfeiffer Vacuum Korea, Ltd.	Republic of Korea	88.1 ²
Dreebit GmbH	Germany	100.0

¹ and ² Group shareholding in total 100.0 %

RESEARCH AND DEVELOPMENT

Commitment to technology leadership

Our primary goal is to offer our customers innovative products and solutions with the highest process efficiency. Our innovative strength is the decisive key to our future business success. In addition to its own research and development (R&D) activities in four principal locations worldwide, Pfeiffer Vacuum works closely with customers and suppliers on projects to jointly advance new technologies to market maturity at an early stage.

It was against this background, too, that the Silicon Valley Innovation Center was opened in 2021. Our highly qualified staff in San José, California, at the heart of the semiconductor industry, will support and advise our customers in the development of innovative future technologies and assist them with the vacuum requirements necessary for this purpose. Initial successes in 2022 were achieved with important OEM customers. New products, particularly in the form of customized solutions from our broad product portfolio, were put forward by every development site and adapted in close collaboration with our customers to fit their requirements. This focus enables us to meet the needs of our OEM customers for precisely-fitting processes and maximum operational readiness. Moreover, our customers' applications are better supported by solutions that we create hand in hand. This leads to greater efficiency, which in turn upholds the sustainability concept that underpins our products.

We also have an established network of different national and international universities and research institutions. The core topics of Pfeiffer Vacuum's R&D are derived from the needs of our customers, most of whom operate globally and in very different markets in some cases. They can be assigned to megatrends such as energy, healthcare, digitization and the environment.

Important R&D projects in fiscal 2022 focused on additions to the product portfolio and the innovative renewal of products at the end of their product life cycle. In the OEM business, new lines of important customers were able to be won with pumps developed specifically for our customers, while the volume of existing lines was developed. The additional demand for medical technology and diagnostics that emerged as a result of the pandemic was met through innovative developments and system solutions. This underpins our leading position in this field.

In addition, the R&D departments helped to maintain the supply capability for serial products by selecting and qualifying alternative suppliers. The overall geopolitical situation had an additional negative impact on the supply chain bottlenecks that were already experienced during the previous year. By developing alternative solutions early on, it was possible to restrict its impact on production. With the targeted provision of vacuum solutions, the R&D area is expected to make a significant contribution to supporting the strong demand for vacuum technology within the given framework and strengthening the semiconductors & future technologies market segment. These innovations concern the pump portfolio as well as components and measurement technology.

Our claim to be a technology leader is supported by the fact that many of our employees are active for us in engineering and engineering-related activities. Of these, a total of 256 employees were assigned to R&D in 2022 (previous year: 252). As a result of its R&D activities, Pfeiffer Vacuum filed a total of 40 (previous year: 34) new patent families in fiscal 2022.

In the 2022 fiscal year, research and development expenses amounted to € 36.7 million (previous year: € 34.2 million). The R&D ratio at 4.0 % lay below the previous year's level (4.4 %) due to the again significant increase in sales.

Business Report

OVERALL ECONOMIC AND INDUSTRY-SPECIFIC DEVELOPMENT

Overall economic development

Headwinds for global economic growth

Global economic growth and the recovery from the coronavirus pandemic began to falter just after the start of the year. The war that has been raging in Ukraine since February poses great uncertainties and challenges for the global economy. Persistently high inflation with extremely high energy and food prices and the resulting restrictive monetary policy are causing consumers to lose purchasing power and companies to be reluctant to invest. In their latest assessment in the "World Economic Outlook" published end of January 2023, the International Monetary Fund (IMF) expects the global economy to grow by only 2.9% in the current year 2023, following growth of 3.4% in 2022. In 2021, the year of recovery, the economy grew by 6.2%.

According to IMF calculations, economic output in the emerging and developing countries rose by 3.9% in the course of 2022, following growth of 6.7% in the previous year.

For the industrialized nations worldwide, the IMF economists forecast average GDP growth of 2.7% in 2022, after economic growth of 5.4% in the previous year.

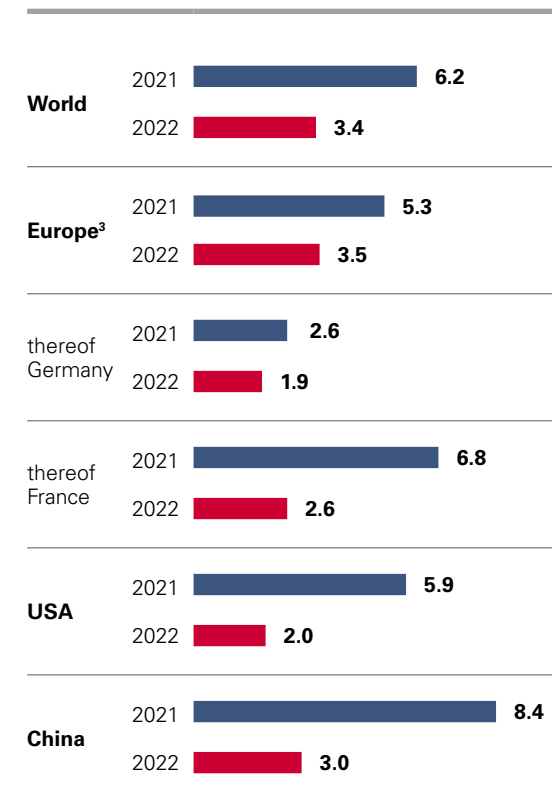
Europe

The countries of the eurozone still performed relatively well in 2022 in comparison with global economic growth, despite the high dependency on raw materials for their energy supply. According to IMF calculations, economic output in the eurozone increased by 3.5% in 2022. In 2021, growth in the euro states was even better with a plus of 5.3%. According to the IMF experts, the German economy will be hit particularly hard by the global economic challenges. In 2022, the German economy grew by 1.9%, after economic output grew at below-average rate of 2.6% in 2021. Following expansion of 6.8% in 2021, France's economy grew by 2.6% in 2022. Growth in Italy lay at 3.9% in the same year, after the Italian economy grew by 6.7% in 2021. In the southern European countries, the rebound in the tourism sector in particular substantially supported the continued economic recovery.

After growing by 7.6% in 2021 following the Brexit, the UK economy managed to grow by 4.1% in 2022.

GROSS DOMESTIC PRODUCT¹

(Real change compared with previous year²) in %



¹ Source: World Economic Outlook IMF, Jan. 2023

² Data relating to the previous year may differ from the previous year's report due to statistical revisions.

³ IMF refers to the eurozone.

USA

After strong growth of 5.9 % in 2021 compared to the eurozone, the world's largest economy grew somewhat more slowly in 2022 at 2.0 %. As a result, inflation and the stricter monetary policy of the FED are also clearly discernible in the momentum of the U.S. economy.

Asia

In the last few years, global economic growth has been supported above all by the expansion of the world's second largest economy in China. In 2021, it grew by 8.4 %. Growth slowed down significantly in 2022 and reached only 3.0 %. The country's strict overall Covid policy and weakening global economy were primarily responsible for slowing down its growth. The Indian economy, on the other hand, was able to maintain a relatively high level of growth in 2022 at 6.8 % compared to the previous year's figure of 8.7 %. With 1.4 %, Japan's economic output in 2022 was 0.7 percentage points below the level of the previous year.

Mechanical engineering and semiconductor industry marked by investment restraint

In 2022, the development of Germany's mechanical engineering companies was characterized by the overall economic situation and problems with international supply chains. As reported by the German Mechanical Engineering Industry Association (VDMA) at the beginning of February 2023, demand for investment goods declined significantly in the fourth quarter of 2022. The initial double-digit growth in orders reversed during the course of the year and resulted in a drop of 4 % overall, after adjustment for prices, in comparison with the previous year. Domestic orders were down 5 %, while orders from abroad were down 4 %.

The reasons that the VDMA sees for the 16 % slump in new orders in the fourth quarter of 2022 compared to the previous year lie particularly in a base effect, as well as in cancellations and further restraints in orders, despite less negative reports from the economic environment.

Problems in the supply chains are still hampering the production of German mechanical engineering companies. According to the VDMA, it was only up by 1 % in 2022. Nevertheless, with the production volume achieved of around € 238 billion, Germany's machinery manufacturers have exceeded the level recorded before the coronavirus pandemic for the first time. A survey conducted at the beginning of December 2022 among VDMA member companies shows that 74 % of the members surveyed are experiencing noticeable or even serious impairments in the supply chain. This shows that the situation has improved slightly in recent months and compared to the previous year. In the previous year, this figure was still 84 %. However, in 2020, the figure lay consistently between 10 % and 19 %, underlining that supply chain issues still pose a great challenge. Electronic components and metals in particular are short in supply. There are also some bottlenecks in the procurement of plastics and rubber. The majority of the machinery manufacturers surveyed do not expect the situation to improve in the first quarter of 2023.

Mechanical engineering companies are also experiencing problems with the rise in energy prices and in some cases the lack of predictability when it comes to energy supplies. About half of all VDMA members surveyed, who are interested in fixed-price contracts for industrial energy supply, stated in the flash survey in December that they had experienced problems concluding a fixed-price contract for natural gas or electricity. Another problem that existed for years and is getting worse is the shortage of skilled workers.

In the survey, 81 % of all companies stated that they had noticeable or serious problems in recruiting skilled workers. On top of that, 97 % of the companies do not expect any improvement or even an increase in the shortage of skilled workers in the coming months.

The situation on the three most important sales markets for SME machinery and equipment engineering, China, the USA and Europe, which together account for some 80 % of exports overall, developed unevenly during the first nine months in 2022. While sales to China shrank slightly and Europe stagnated, exports to the USA, in particular, increased sharply by 19.4 %. As a result of the war in Ukraine and the sanctions imposed on Russia, machine exports to Russia, in particular, fell by 44.4 %. This means that the share of machines exported to Russia is only 1.6 % of all German machine exports. Compared with the first three quarters of 2021, exports in the first nine months of 2022 were up 4.1 %. However, in real terms this corresponds to a fall in exports of 4.3 %.

According to the Semiconductor Industry Association (SIA), the semiconductor industry reached a new record of 573.5 billion U.S. dollars in 2022, with a 3.2% increase in sales. The market benefited in particular from the strong demand in the first half-year, while the second half-year proved to be weaker. Accordingly, sales in the fourth quarter of 2022 were 14.7% lower than in the same quarter of the previous year, against a backdrop of challenging macroeconomic conditions and short-term fluctuations in sales due to market cycles.

In 2022, the biggest growth in sales was achieved in the U.S. market with a growth rate of 16.0 %. Annual sales in

2022 also rose in Europe (12.7 %) and Japan (10.0 %). China remained the biggest single market for semiconductors, with overall sales of 180.3 billion U.S. dollars, but suffered a decline of 6.3 % due to the zero-Covid policy it continued to pursue well into the year.

The importance of the various semiconductor products for their role in innovative developments continued to prevail overall. The volatility of the year 2022, in fact, reflects the inflation and a weaker demand in end markets that in turn depend closely on consumer spending.

COURSE OF BUSINESS

The course of Pfeiffer Vacuum's development in 2022 must be perceived once again in the light of the continued rise in demand for semiconductors. This dynamic, which had already resulted in significant sales growth in 2021, again drove the development of sales in 2022, and contributed accordingly to an increase from € 771.4 million in the previous year to € 916.7 million in 2022. The increase of € 145.3 million, or 18.8 %, was also attributable to growth in sales in the Analytics, Industry, Research & Development segment. Overall, this outstripped the record sales reported in 2021. It is particularly worthy of mention that we were able to achieve this result against the backdrop of global burdens and disruptions to supply chains.

Last year's outlook was prepared at the end of February 2022 in light of the invasion of Ukraine by Russian troops. At that time, it was impossible to foresee the consequences that would result for global procurement markets in general

and for Pfeiffer Vacuum's specific supply sources in particular. A forecast was formulated in this context that ultimately set out the prospect of at least 5% growth in sales. After it turned out in the further course of the year that the forecast-related uncertainties in the highly dynamic market environment and the challenges in the supply chains were less critical than expected, the Company substantiated its sales and earnings forecasts in more concrete terms and raised the sales forecast prediction several times. A contributing factor could also be seen in the development of exchange rates, leading to a weaker euro during the course of the year and a resulting effect on sales of nearly € 39 million.

The very positive sales development and the resulting economies of scale, coupled with the positive impact on earnings from currency effects from the volume of sales, enabled us to compensate for increased procurement costs, negative effects on earnings exerted by supply chain management, the rise in personnel costs and expenses incurred in connection with the IT infrastructure expansion. Overall, an operating profit of € 119.4 million was therefore achieved in 2022. After € 93.1 million in the previous year, this represented an increase of € 26.3 million or 28.2 % and corresponded to an operating profit margin, or EBIT margin, of 13.0 % (previous year: 12.1 %). The improvement in the EBIT margins anticipated in last year's outlook, notably due to the absence of impairment losses from 2021, was thus ultimately achieved.

A glance at the balance sheet of the Pfeiffer Vacuum Group reveals that the financial position remained unchanged and sound. The Group is almost debt-free on a net basis and has a high equity ratio. The increase in total assets is attributable primarily to the development of inventories and investing activities during 2022. The liquidity and financing situation

we enjoyed in 2022 enabled us to take the necessary steps for the successful further development of the Group on our own and allowed us to distribute a high dividend for the year 2021 to the shareholders. The investment volume originally planned for 2022 was to be significantly higher than the 2021 figure of € 41.6 million. Against the background of the growth strategy and the continuing dynamic demand situation, this target was also exceeded in view of the € 80.8 million actually expended.

PROFITABILITY, FINANCIAL POSITION, AND LIQUIDITY

In the following, we explain the sales generated in 2022 by segment, region, and market. With regard to the sales by segment, it should be noted that the registered office of the Company that invoiced the sales is decisive for the allocation of sales. Therefore, the segment-related presentation shows the sales by subsidiaries. In contrast, sales by region include all sales in a specific region, regardless of which company of the Pfeiffer Vacuum Group invoiced the sales. Sales by segment and sales by region differ from each other to a greater or lesser extent. Sales in the Asia segment, for example, differ significantly from those in the Asia region, since the Asia segment contains only the direct sales of our Asian subsidiaries. In contrast, the Asia region also includes sales generated directly by our companies producing outside of Asia with Asian customers, for example, with customers in Japan or China. In terms of sales by segment, sales by the German Company are significantly higher than sales in Germany by region due to direct deliveries to agents or customers outside Germany.

Sales by Segment

USA

In parallel with the development of the Group in general, the USA segment also showed a very gratifying development of sales again in the past fiscal year 2022. In contrast to large parts of the rest of the Group, however, the demand from our semiconductor customers was not the only driver here. The gratifying growth was attributable, in fact, to the industry sector. The rise in sales was influenced considerably by the positive effects of the development of the U.S. Dollar exchange rate in 2022 with a pronounced weakness of the euro.

Asia (excluding Republic of Korea)

As in the previous years, the development of this segment was dominated by our local sales unit in China. In contrast to the development of the Group as a whole, however, sales to customers in the heterogeneous industry market were the main driver of performance in China. In the other countries in this segment, the development in 2022 was again fundamentally characterized by the semiconductor sector. Overall, a significant increase was also achieved in the semiconductor sector, but slightly trailing behind the momentum of 2021.

Germany

The increase in sales recorded in this segment in 2022 was largely due to sales in Germany. Impetus here derived predominantly from the Analytics, Industry and Research & Development market segment. Further growth in 2022 was also recorded in direct business outside Germany and thus contributed to the overall positive development of sales.

Europa (excluding Germany and France)

Due to the customer structures at our European sales companies, this segment lacks the impetus otherwise provided by the semiconductor market and analytics. The development of this segment is therefore largely in

line with the macroeconomic development and as such only achieved moderate growth in 2022. Of particular note in 2022 were the Italian and Dutch sales companies. These recorded pleasing growths in sales and therefore contributed disproportionately to the development of the segment.

Republic of Korea

After achieving above-average rates of growth in South Korea in previous years, sales here declined in 2022. This was mainly due to a cyclical volume of business with a semiconductor customer. Our major semiconductor customers in Asia are addressed mainly by the production and sales company managed in the South Korea segment.

SALES BY SEGMENT

	2022	2021	Change	
	in € millions	in € millions	in € millions	in %
USA	177.9	148.0	29.9	20.2
Asia (excl. Republic of Korea)	159.4	141.4	18.0	12.7
Germany	147.2	127.3	19.9	15.7
Europe (excl. Germany and France)	123.0	110.0	13.0	11.9
Republic of Korea	108.3	116.9	-8.6	-7.4
France	91.8	57.9	33.9	58.7
USA (production)	71.9	45.6	26.3	57.6
All others	37.2	24.3	12.9	52.9
Total	916.7	771.4	145.3	18.8

France

Following the pleasing performance experienced in the previous year, very satisfactory rates of growth were reported once again in 2022 in the France segment. Key for this was the development of demand in France itself and the demand for foreign business, mainly in China, which is handled directly from France. Due to the focus of this location on products for the semiconductor industry, the evolution of demand from this sector was the main determining factor here.

USA (production)

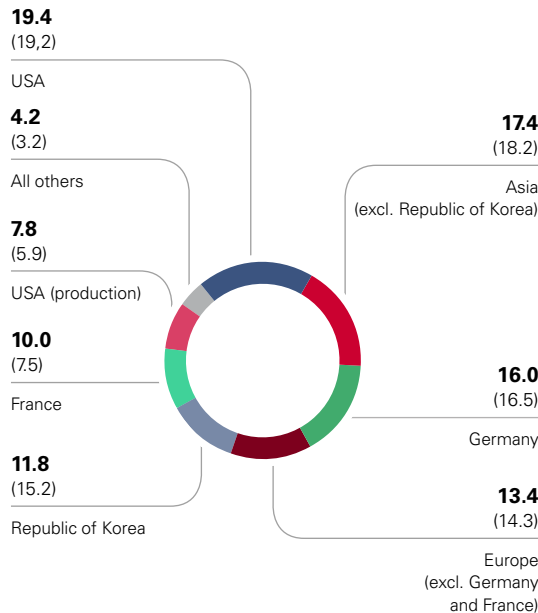
The considerably stronger year-on-year sales in this segment, were mainly attributable to the semiconductor industry. At the same time, however, pleasing growths were also recorded in the Analytics, Industry and Research & Development market segment. The development of this segment also experienced a considerable positive impact due to the weakness of the euro in the course of the year.

All others

This segment combines those Group companies which differ from the other segments due to segment-related characteristics (such as economic conditions, range of functions, product portfolio, sales markets, distribution channels) and thus cannot be assigned to any other segment. Accordingly, this segment has a very heterogeneous composition. The increase of € 12.9 million is therefore characterized by a variety of different factors and largely follows the overall positive trend of Pfeiffer Vacuum in the 2022 fiscal year.

SALES BY SEGMENT

in % (previous year)



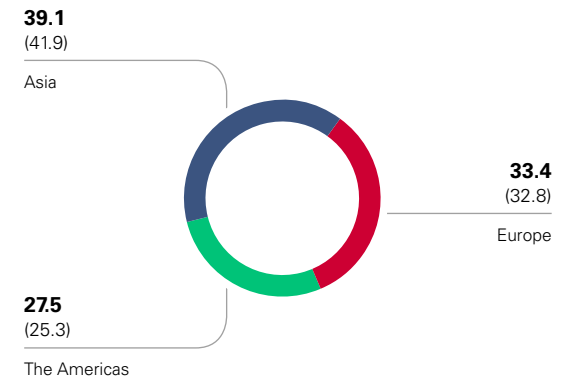
Sales by Region

Asia

The already mentioned dynamic demand in the semiconductor market had a very marked regional impact again in 2022, particularly in Asia. It should be noted, however, that the growth rates in other market sectors were also high, and even in part exceeded those in the semiconductor market. Virtually all countries in the region showed renewed double-digit rates of growth, while South Korea exhibited a downward trend which was primarily due to the investment behavior of a major semiconductor customer.

SALES BY REGION

in % (previous year)



Europe

The Europe region was strongly focused on the Industry, Analytics and Research & Development market segment in previous years and was able to record very gratifying sales growths in these areas again in 2022. Contrary to previous years, however, the semiconductor industry in the region displayed significant growth in the previous fiscal year and thereby bolstered the overall strong development.

The Americas

With sales of € 252.3 million, following € 195.4 million in the previous year, this region showed the largest increase in sales compared to the previous year. The development of sales in the North and South America region continues to be influenced to a large extent by developments in the USA and simultaneously by the demand from the semiconductor market. With a renewed double-digit rate of growth in the semiconductor market in 2022 it should be noted, however, that the Industry, Analytics and Research & Development market segment showed considerably improved momentum. Additionally, it has to be considered that the strong U.S. dollar exerted a considerable positive impact on the development of sales in 2022 with approx. € 29 million. The share of total sales was 27.5 % in 2022 and, as a result, it completes the overall balanced picture of the regional sales distribution in the Group.

Sales by Market

Semiconductor & Emerging Technologies

The year 2022 was again characterized by a rise in demand in the semiconductor industry. With growth of 19.8 %, the momentum was not as dynamic as in the previous year, where growth amounted to 38.1 %. Regionally, this strength was particularly pronounced in Europe and the USA in 2022, after the previous year when Asia and the USA significantly influenced the development.

SALES BY REGION

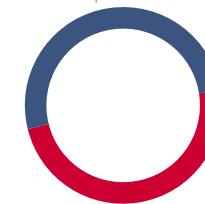
	2022	2021	Change	
	in € millions	in € millions	in € millions	in %
Asia	358.3	322.5	35.8	11.1
Europe	305.9	253.4	52.5	20.7
The Americas	252.3	195.4	56.9	29.1
Rest of world	0.2	0.1	0.1	108.4
Total	916.7	771.4	145.3	18.8

SALES BY MARKET

in % (previous year)

51.4
(51.0)

Semiconductor
and Emerging
Technologies



48.6
(49.0)

Analytics, Industry,
Research & Development

SALES BY MARKET

	2022	2021	Change	
	in € millions	in € millions	in € millions	in %
Semiconductor and Emerging Technologies	471.1	393.2	77.9	19.8
Analytics, Industry, Research & Development	445.6	378.2	67.4	17.8
Total	916.7	771.4	145.3	18.8

Analytics, Industry, Research & Development

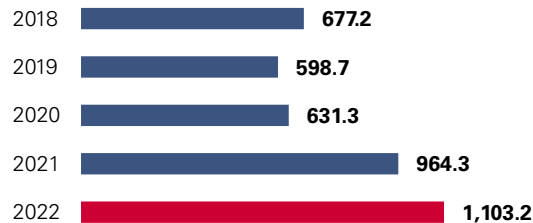
After € 378.2 million the previous year, we recorded sales of € 445.6 million in this market segment in the past fiscal year. The heterogeneous Industry subgroup exhibited a particularly robust sales development, which was supplemented by significantly strong growth rates in the Analytics subgroup. By contrast, our current delivery times are a burden in particular for the development of sales with our customers from the Research & Development segment, who tend to cover their demand rather in the short term.

New orders and orders on hand

After new orders of € 964.3 million in 2021, order intake rose again considerably in the past fiscal year 2022 and amounted to € 1,103.2 million in 2022. Again, the impetus

DEVELOPMENT OF ORDER INTAKE

in € millions



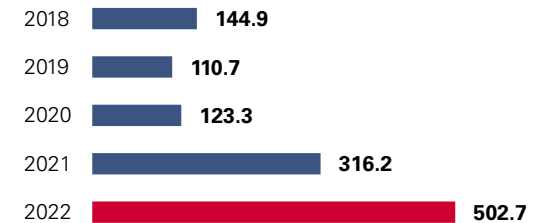
from the semiconductor industry remained a determining factor. The growth of the past fiscal year resulted, however, in equal measure from the development of the Analytics, Industry and Research & Development market segment.

Longer delivery times and the resulting need to secure supply chains have also led our customers to place orders earlier. The book-to-bill ratio, the ratio of incoming orders and sales, also lay at over 1 again, and amounted to 1.20 in 2022 after 1.25 in the previous year.

At € 502.7 million as of December 31, 2022, the order backlog was thus 59.0 % higher than the previous year's figure of € 316.2 million. The visibility of orders on the basis of average sales in 2022 now lies at approx. six months, after just under five months in the previous year.

DEVELOPMENT OF ORDER BACKLOG

in € millions



Profitability

Gross profit

The cost of sales increased in 2022 from € 491.0 million to € 587.5 million mainly due to the sales volume. This corresponds to an increase of € 96.5 million, or 19.7 %, which, however, was disproportionately high compared with the increase in sales. Various, partly contrary, effects played a role here.

GROSS PROFIT

in € millions



GROSS MARGIN

in %



Moreover, increased procurement prices and freight costs impacted the development of costs. The fact that Pfeiffer Vacuum was able to further increase sales over the previous year despite the difficult supply chain situation is the result of intensive management of our supplier relationships, even though this had a strong negative impact on the cost situation. Overall, we nevertheless recorded a slight decline in the gross margin – i.e. the ratio of gross profit to sales – from 36.4 % in the previous year to 35.9 % in 2022. After € 280.4 million in 2021, the gross profit increased in absolute terms by € 48.9 million to € 329.3 million in 2022. A significant positive effect on the development of the gross profit and gross margin was additionally exerted by the stronger U.S. dollar.

Selling and administrative expenses

After € 140.8 million in the previous year, the selling and administrative expenses in 2022 amounted to € 175.1 million. This increase of € 34.3 million was attributable in roughly equal measure to the development of selling expenses and administrative expenses. The increases in selling expenses were primarily due to the development of sales and the increase in the number of employees and the payroll costs for existing employees (in particular variable sales-related remuneration). In addition, travel expenses in this connection rose due to the fact that we were more able to visit our customers again in fiscal 2022. In the area of administrative expenses, expenditure has risen in particular in connection with the development of our global IT infrastructure. As a result of the slightly disproportionate increase compared to sales, the share of selling and administrative expenses in total sales rose marginally from 18.3 % in the previous year to 19.1 % in fiscal 2022.

Research and development expenses

Following € 34.2 million in 2021, a total of € 36.7 million was recorded for research and development costs in the past fiscal year. In the year under review, the Company capitalized development costs of € 6.4 million, corresponding to 17.4 % of the development costs recorded as an expense (previous year: € 1.9 million, or 5.6 % of the costs). The development has not been amortized since it is not yet completed. Due to the increase in sales, the percentage share of research and development expenses amounted to 4.0 % after 4.4 % in the previous year. Adjusted for subsidies for expenses for research and development services included in other operating income in the amount of € 5.5 million (previous year: € 4.1 million), the net research and development expenses totaled € 31.2 million in 2022 (previous year: € 30.2 million).

Other operating income and expenses

As in previous years, other operating income and other operating expenses include the Group's foreign exchange gains and losses. The other operating income of € 19.6 million in 2022 (previous year: € 11.4 million) in addition contained subsidies for expenses in the amount of € 5.5 million (previous year: € 4.1 million) and miscellaneous income of € 0.9 million (previous year: € 0.5 million), principally resulting from gains on disposals. The other operating expenses of € 17.7 million in 2022 (previous year: € 23.7 million) were characterized virtually exclusively by exchange rate losses of € 14.1 million (previous year: € 6.0 million). After € 0.8 million in the previous year, the net foreign exchange result in 2022 thus stood at € –0.8 million. In addition, this item

included expenses for the derecognition of a building amounting to € 2.5 million and impairment losses of € 16.4 million for goodwill in the previous year.

Operating profit

After the operating profit in the previous year more than doubled, a substantial increase was again recorded in 2022 with € 119.4 million compared to the previous year (€ 93.1 million). This increase of € 26.3 million signifies growth of 28.2 % and resulted in by far the highest operating profit in the Company's history to date. This development is mainly attributable to the effects mentioned above.

OPERATING PROFIT

in € millions



EBIT MARGIN

in %



Personnel expenses, which are a significant part of all functional costs, are a substantial factor of earnings development. They increased from € 239.3 million in the previous year to € 276.4 million in the past year 2022. Besides the general development of the number of employees, this also reflects the adjustment of remuneration in line with the accelerated inflation trend. In addition, variable remuneration, particularly in the sales area, has increased significantly. The operating profit attained of € 119.4 million corresponds to an operating profit margin or EBIT margin of 13.0 % (previous year: 12.1 %). In last year's forecast report, the EBIT margin for 2022 was expected to improve slightly to above the level of 2021. At the time, this expectation was based on the assumption of a good 5 % growth in sales. By exceeding this with sales growth of 18.8 %, this led to a better development of profitability. Nevertheless, the EBIT margin of 13.0 % is above the 2021 level but slightly below the forecast of 14 % as substantiated over the course of the fiscal year 2022.

With regard to the segments it can be seen that the two large production sites in Germany and France with 38.5 % and 28.9 % account – as in the previous year – for the largest part of the overall operating profit (previous year: 42.7 % and 24.2 %).

The operating profit before depreciation and amortization (earnings before interest, taxes, depreciation and amortization, EBITDA), or operating profit without depreciation and amortization (for tangible and intangible assets) in 2021 amounted to € 114.0 million and rose, largely parallel to the development of the operating profit, to € 144.6 million in the reporting year. For better comparability, the depreciation/amortization was determined as previously without taking

into account the amortization of rights of use assets and also without taking into account the impairment losses.

Financial income

The financial result of € – 0.5 million was vastly on the previous year's level (previous year: € – 0.6 million).

Income taxes

The tax rate, that is, the ratio of income tax expenses to earnings before taxes, stood at 33.0 % in 2021. The main reason for this is that the impairment losses referred to previously are not deductible for tax purposes and thus increased the rate.

INCOME BEFORE TAXES

in € millions



In 2022, there were no non-deductible expenses to be recorded in this amount, so that the rate now amounted to 27.3 %. As a result of substantially higher earnings before taxes, tax expenses in absolute terms increased from € 30.5 million in the previous year to € 32.5 million.

Net income

As a result of the aforementioned developments, the net income of € 62.0 million in 2021 increased significantly to € 86.4 million in 2022. This corresponded to an increase of € 24.4 million, or 39.3 %.

NET INCOME

in € millions



Earnings per share

Since there were no changes in the number of shares outstanding in the year under review, earnings per share changed in line with net income. After € 6.28 in the previous year, a figure of € 8.75 was achieved in 2022.

EARNINGS PER SHARE

in €



Financial Position

The development of the financial position of the Pfeiffer Vacuum Group again showed an increase in total assets in 2022. This is due in particular to the increased volume of business and the continued strategy of growth. Overall, the balance sheet total increased from € 707.9 million to € 863.7 million on December 31, 2022. Of note on the asset side of the balance sheet is the increase of € 50.7 million in property, plant and equipment to € 226.7 million on December 31, 2022, which is due to investments made in relation to the growth strategy. The significantly higher volume of business also resulted in an increase by € 33.6 million in trade accounts receivable to € 153.2 million. As a conse-

quence of the tense situation in supply chains, resulting in greater stockpiling overall, inventories rose substantially from € 162.2 million in 2021 to € 249.0 million. Net working capital increased from € 211.8 million to € 291.0 million. Cash and cash equivalents declined from € 99.4 million at the end of fiscal 2021 to € 67.8 million on December 31, 2022. The main drivers of this development were the dividend payment, the higher investments in 2022, the increased net working capital and the loans taken out. A detailed analysis of the development of cash and cash equivalents can be found in the section "Liquidity".

PFEIFFER VACUUM CONSOLIDATED BALANCE SHEETS

(Abstract)

	Dec. 31, 2022	Dec. 31, 2021	Change
	in € millions	in € millions	in € millions
Total non-current assets	362.9	299.8	63.1
Cash and cash equivalents	67.8	99.4	-31.6
Other current assets	433.0	308.7	124.3
Total current assets	500.8	408.1	92.7
Total assets	863.7	707.9	155.8
Equity	531.4	459.4	72.0
Total current liabilities	282.2	168.4	113.8
Total non-current liabilities	50.1	80.1	-30.0
Total liabilities	332.3	248.5	83.8
Total shareholders' equity and liabilities	863.7	707.9	155.8

CHANGE IN NET WORKING CAPITAL

	Dec. 31, 2022	Dec. 31, 2021	Change
	in € millions	in € millions	in € millions
Inventories	249.0	162.2	86.8
Trade accounts receivable ¹	156.7	121.0	35.7
Trade accounts payable ²	-114.7	-71.4	-43.3
Net working capital	291.0	211.8	79.2

¹ including contract assets

² including short-term contract liabilities

On the liabilities side of the balance sheet, the change in shareholders' equity is of particular note. It increased significantly by € 72.0 million from € 459.4 million to € 531.4 million. The increase resulted from the net income generated in the year under review (€ 86.4 million) and the dividend payment to the shareholders of Pfeiffer Vacuum Technology AG (€ 40.3 million) and the significant net increase of € 25.9 million in other equity components. As in previous years, the development of other equity components was mainly due to the effects of the foreign exchange conversion and the valuation of pension provisions recorded mostly directly in equity of the balance sheet date. Despite the significant increase in equity, the equity ratio decreased slightly to 61.5 % after 64.9 % in the previous year in view of the even stronger rise in debts. As already mentioned in relation to the development of shareholders' equity, the development of pension provisions decreased substantially by € 23.8 million to € 36.7 million as a consequence of the rise in interest

rates. A further change on the liabilities side resulted from the increase in financial liabilities. Due to increased operational liquidity requirements, new liabilities amounting to € 58.6 million were taken out in 2022, while repayments totaling € 55.0 million were made during the previous year. On a net basis, i.e. taking into account cash and cash equivalents, the Company is almost debt-free.

Liquidity

Following € 91.6 million in the year 2021 the operating cash flow in the fiscal year 2022 totaled € 47.0 million. Despite the significantly higher earnings before taxes compared to the previous year (+ € 26.4 million), a decline of € 44.6 million resulted. The main reason for this was the significant increase in short-term working capital, and particularly the corresponding rise in receivables and inventories. This development was rooted on the one hand in the increased busi-

ness volume. Any further rise above this can be attributed to the tense situation in supply chains. In order to reach the sales volume that was achieved in 2022 at all, it was necessary, against this backdrop, to substantially increase inventories, leading to higher stockpiling of critical materials in particular. Consequently, there was a significant increase in the liquidity outflow referred to above. As a result of the earnings development and of shifts in the accounting period, the income taxes paid in the amount of € 30.1 million were also clearly above the previous year's level (€ 16.1 million).

Pfeiffer Vacuum is currently pursuing an ongoing growth strategy with the goal of satisfying our customers' needs in future, too, in a rapidly changing environment. Consequently, high amounts were expended for investments again this year. Following € 41.6 million in 2021, expenditure for this purpose amounted to € 80.8 million in 2022 and therefore lay 94.2 % over the previous year's figure. It can be noted that last year's forecast of an investment volume to significantly exceed the 2021 level was therefore outperformed. As in the previous years, capital expenditures were the main determinant for the cash outflow from investing activities in the past fiscal year 2022. More information on the composition of the investment volume can be found in the section "Capital expenditure and financing" that follows.

Capital expenditures were offset by cash inflows from the disposal of property, plant and equipment amounting to € 1.3 million (previous year: € 1.7 million). In addition, payments for acquisitions amounting to € 3.4 million were recorded in 2022, so that after € 39.9 million in the previous year, there was a total cash outflow from investing activities of € 83.0 million.

REPRESENTATION OF CASH FLOW FROM OPERATING ACTIVITIES

(Abstract)

	2022	2021
	in € millions	in € millions
Earnings before taxes	118.9	92.5
Income taxes paid	-30.1	-16.1
Depreciation/amortization	31.2	26.1
Other non-cash changes	10.4	23.7 ¹
Effects of changes in assets and liabilities	-83.4	-34.6
Net cash provided by operating activities (operating cash flow)	47.0	91.6

¹ including impairment losses of € 16.4 million

The main determinant for the cash flow from financing activities was the dividend payment of € 40.3 million (previous year: € 15.8 million) and, offsetting this, proceeds from increases of financial liabilities of € 58.6 million (previous year: repayments of € 55.1 million). Together with the repayment portion of rental and leasing installments (€ 12.7 million; previous year: € 5.5 million) a cash inflow from financing activities of € 5.7 million resulted in 2022. In the previous year, on the other hand, a cash outflow from financing activities of € 76.4 million was recorded.

Taking currency effects into account, the total cash outflow in 2022 was therefore € 31.6 million (previous year: € 23.5 million) and led to a decrease in cash and cash equivalents from € 99.4 million to € 67.8 million.

At the balance sheet date, Pfeiffer Vacuum also had unused credit lines amounting to € 60.2 million (previous year: € 10.3 million). Free liquidity is invested in interest-bearing financial instruments where possible. A cash management system is in place in the Group companies in Asslar and Annecy to bundle liquidity. Conservative and largely short-term investment vehicles, such as money market or time deposits at financial institutions, dominate where financial investments are concerned. Speculative transactions are not conducted. Both liquidity management as well as steering of the interest-rate change risk are thus primarily handled at Corporate Headquarters, taking into consideration all relevant matters within the corporate Group.

Capital Expenditure and Financing

The investments made in the past fiscal year 2022, the expansion of the operating business and the resulting increase in short-term working capital as well as the dividend payment were financed by the Group's own funds and by new loans amounting to € 58.6 million. The inclusion of financial liabilities will be considered with a view to financing potential acquisitions. This resulted in financial liabilities totaling € 76.0 million as of the balance sheet date of December 31, 2022 (previous year: € 18.2 million). Of this amount, € 63.6 million are related to liabilities to banks and € 12.4 million to leasing liabilities (previous year: € 5.0 million, and € 13.2 million respectively).

Capital expenditure in 2022 amounting to € 80.8 million (previous year: € 41.6 million) resulted predominantly from capacity expansion and modernization measures at the Asslar (Germany), Annecy (France), Cluj (Romania), Ho Chi Minh City (Vietnam) and Asan (Republic of Korea) production sites. This includes replacement and expansion investments in machinery and operating and office equipment. In the area of intangible assets, investments were recorded in particular in the area of IT environment and the activated research and development expenses. Due to the expansion of investment projects as a result of dynamic business development, the investment volume was higher than the originally forecast capital expenditures.

Allocation of capital expenditures for tangible and intangible assets to the reported segments compared to the previous year is comprised as follows:

CAPITAL EXPENDITURES BY SEGMENT

	2022	2021
	in € millions	in € millions
Germany	20.5	11.9
France	17.1	12.1
USA	2.1	4.0
Republic of Korea	21.9	3.8
Asia (excl. Republic of Korea)	3.6	2.3
USA (Produktion)	0.6	0.4
Europe (excl. Germany and France)	0.3	0.4
All others	14.7	6.7
Total	80.8	41.6

The balance sheet of the Pfeiffer Vacuum Group has long demonstrated a good equity base as compared to the industry. The equity ratio declined to 61.5 % after a very high level of 64.9 % on December 31, 2021, even though the equity itself rose significantly from € 459.4 million to € 531.4 million.

Pfeiffer Vacuum Technology AG – Short Version in Accordance with German Commercial Code (“HGB”)

In addition to the consolidated financial statements prepared in accordance with IFRS, the development of Pfeiffer Vacuum Technology AG, the parent Company of the Pfeiffer Vacuum Group, is discussed below. Pfeiffer Vacuum Technology AG acts purely as a management and holding company within the Pfeiffer Vacuum Group.

The Annual Financial Statements of Pfeiffer Vacuum Technology AG are prepared in accordance with the principles of German commercial law (“HGB”, “AktG”). Use is made of the option pursuant to § 315, Sub-Para. 5, German Commercial Code (“HGB”), to combine the Management Report of Pfeiffer Vacuum Technology AG with the Management Report of the Pfeiffer Vacuum Group. This is also because a very close connection exists between the future opportunities and risks of the Group and Pfeiffer Vacuum Technology AG.

The following comments relate exclusively to Pfeiffer Vacuum Technology AG.

Profitability

The principal activities of Pfeiffer Vacuum Technology AG consist of management and holding functions for the Pfeiffer Vacuum Group. These include, among other things, cash management for the German subsidiaries in Asslar and Pfeiffer Vacuum SAS in Annecy, the financing function for the Group-wide liquidity requirements, as well as the leasing of buildings to Pfeiffer Vacuum GmbH in Asslar. The existing profit and loss transfer agreement with the subsidiary Pfeiffer Vacuum GmbH has a significant impact on the Company’s earnings.

At € 46.7 million, Pfeiffer Vacuum Technology AG’s net profit for the year lies under the previous year’s very high level of € 52.2 million by a figure of € 5.5 million.

Unchanged from previous years, the profitability of Pfeiffer Vacuum Technology AG was significantly impacted by the transfer of profits from Pfeiffer Vacuum GmbH in the amount of € 46.7 million (previous year: € 51.7 million). Coming on the heels of an already very gratifying fiscal year 2021, the renewed growth in demand momentum gave rise to a further improvement in the sales and earnings development for Pfeiffer Vacuum GmbH in 2022, which were, however, overcompensated by cost increases building our global IT infrastructure.

Following an already high figure of € 267.4 million in the previous year, Pfeiffer Vacuum GmbH was able to expand its sales volume again in 2022 to reach € 306.9 million in the year under review. This corresponds to an increase of € 39.5 million, or 14.8 %. It was particularly gratifying that this development was broad-based, with virtually all major sales regions recording double-digit sales growth. As a consequence of the development of the US dollar exchange rate, the development of sales in the Americas region was impacted to a particularly positively extent.

In last year’s forecast report, a sales revenue forecast was formulated with an improved sales volume compared to the year 2021 (€ 267.4 million). This development was positively influenced by this same dynamics that prevailed in all the markets served by Pfeiffer Vacuum GmbH. An even stronger influence, however, was exerted by the relative stability of the supply chains which, at the time of the forecast, was not to be expected for 2022 and consequently made a heightened contribution to the significant improvement in sales.

The significant increase in sales revenues at the level of Pfeiffer Vacuum GmbH led to positive economies of scale and thus also to an increase in income from profit transfer. Moreover, at the level of Pfeiffer Vacuum GmbH, persistently high investment income had a positive impact on the development of earnings. The aforementioned IT costs ultimately overcompensated this positive trend.

A further important element for the profitability of Pfeiffer Vacuum Technology AG, in addition to the development of Pfeiffer Vacuum GmbH, is income from investments as a result of profit distribution from the direct Group companies. This income decreased from € 16.3 million in the previous year to € 14.3 million in the past fiscal year. Following personnel expenses of € 3.0 million in the previous year, these increased slightly and amounted to € 5.2 million in 2022. As a consequence of implementing a global IT organization in a subsidiary company of the Group, the associated costs were also incurred by this business unit. For this reason, other operating expenses declined significantly

from € 19.4 million in the previous year to € 10.1 million in 2022. Sales revenues as a result of IT costs being passed on also show a decline accordingly. Overall, sales revenues and other income decreased from € 13.4 million in the previous year to € 8.3 million. After a virtually balanced financial result of € –0.1 million was achieved in 2021, the result in 2022 was € –0.6 million. This was due in particular to effects from pension valuation, which led to a substantially higher net interest expense compared to the previous year.

At 24.2 %, the tax ratio in 2022 was significantly higher than in 2021 (20.7 %). Compared to the previous year, the tax ratio in the reporting year increased due to higher non-deductible expenses in connection with the pension valuation. In conjunction with the slightly decreased overall earnings, tax expenses increased from € 12.0 million to € 12.6 million. In parallel, the tax allocation levied on Pfeiffer Vacuum GmbH increased from € 6.8 million to € 7.6 million.

Overall, annual net profit thus declined slightly from € 52.2 million in the previous year to € 46.7 million in the year under review. In contrast to the original plans and the formulations in last year’s forecast report, the slight improvement in annual net profit was therefore not achieved as a consequence, in particular, of the increased IT costs.

SALES BY REGION (PFEIFFER VACUUM GMBH)

	2022	2021	Change	
	in € millions	in € millions	in € millions	in %
Germany	92.6	80.1	12.5	15.6
Europe (excluding Germany)	69.1	65.2	3.9	6.0
Asia	90.1	79.4	10.7	13.5
USA	55.0	42.6	12.4	29.1
Rest of world	0.1	0.1	0.0	0.0
Total	306.9	267.4	39.5	14.8

PFEIFFER VACUUM TECHNOLOGY AG STATEMENTS OF INCOME

(Abstract)

	2022	2021	Change	
	in € millions	in € millions	in € millions	in %
Income from profit and loss transfer agreement	46.7	51.7	-5.0	-9.7
Income from investments	14.3	16.3	-2.0	-12.3
Other sales revenues and income	8.3	13.4	-5.1	-38.1
Total income	69.3	81.4	-12.1	-14.9
Personnel costs	-5.2	-3.0	-2.2	73.3
Depreciation/amortization	-1.7	-1.5	-0.2	13.3
Other expenses	-10.1	-19.4	9.3	-47.9
Financial result	-0.6	-0.1	-0.5	500.0
Net income tax	-5.0	-5.2	0.2	-3.8
Annual net profit	46.7	52.2	-5.5	-10.5
Profit carried forward from the previous year	140.2	128.2	12.0	9.4
Retained earnings	186.9	180.4	6.5	3.6

Liquidity and financial position

At € 392.2 million, the balance sheet total as of December 31, 2022 increased compared to the previous year (€ 347.1 million). A significant change resulted from the increase in loans to affiliated companies, which rose by € 28.1 million from € 9.6 million to € 37.7 million as a result of newly established amounts. This increase is the result of continued high investment activities in the corporate Group and the related financing of this by Pfeiffer Vacuum Technology AG. These activities are also the reason why cash at banks significantly declined from € 18.3 million to € 0.1 million. Property, plant and equipment increased from € 9.3 million to € 12.8 million.

On the liabilities side, the change in the balance sheet total is mainly characterized by two opposing movements: On the one hand, there was a renewed increase in equity. After € 305.4 million as of December 31, 2021, this stood at € 311.9 million at the end of the year under review. This signified an increase of € 6.5 million. The annual net profit generated of € 46.7 million and, in contrast, the dividend payment of € 40.3 million in accordance with the resolution of the Annual General Meeting of May 19, 2022 were the reasons for this development. The equity ratio decreased to 79.5 % (previous year: 88.0 %). In contrast, liabilities to banks increased significantly. After liabilities to banks were reduced during the previous year to € 5.0 million as of the balance sheet date of December 31, 2021, amounts totaling € 58.6 million were incorporated to finance the investment activities and the short-term working capital in the corporate Group, resulting in a balance of € 63.6 million as of December 31, 2022. The loan has a variable interest rate based on Euribor plus a margin in line with the market.

In addition to the borrowing, the Company has free credit lines amounting to € 56.4 million (previous year: € 8.7 million). As of December 31, 2021, liabilities to affiliated com-

panies were predominantly in relation to Pfeiffer Vacuum SAS and resulted from a cash pooling agreement. They were fully repaid in the year under review. The other items on the

liabilities side did not show any significant changes as of the end of fiscal year 2022 compared to the previous year.

Overview of course of business

Against the backdrop of the ongoing economic impact of the global coronavirus pandemic during recent years and the consequences of the war in Ukraine, business development was satisfactory. Pfeiffer Vacuum Technology AG's annual net profit nearly remained at the high level of the previous year. The equity ratio also remained high and thus continued to remain at a good level compared with the sector as a whole. The liquidity situation of the Company is influenced by the intra-Group financing function and this has resulted, on the one hand, in a decline in the balance of cash at banks and, on the other hand, in an increase in liabilities to banks. However, the financing of the operative business and the further growth of the Company remain assured, in our view, even in these times which continue to be fraught with a great deal of uncertainty.

PFEIFFER VACUUM TECHNOLOGY AG BALANCE SHEET

(Abstract)

	Dec. 31, 2022	Dec. 31, 2021	Change	
	in € millions	in € millions	in € millions	in %
Intangible assets	12.2	12.1	0.1	0.9
Property, plant and equipment	12.8	9.3	3.5	37.9
Financial assets	261.7	233.6	28.1	12.0
Total intangible assets	286.7	255.0	31.7	12.4
Receivables and other assets	104.5	72.6	31.9	43.9
Cash at banks	0.1	18.3	-18.2	-99.7
Total current assets	104.6	90.9	13.7	15.0
Deferred income	0.9	1.2	-0.3	-28.2
Balance sheet total	392.2	347.1	45.1	13.0
Share capital	25.3	25.3	0.0	0.0
Additional paid-in capital	99.7	99.7	0.0	0.0
Retained earnings	186.9	180.4	6.5	3.6
Total equity	311.9	305.4	6.5	2.1
Provisions	16.0	12.1	3.9	32.5
Liabilities	64.3	29.0	35.3	121.6
Accrued expenses	0.0	0.6	-0.6	-100.0
Balance sheet total	392.2	347.1	45.1	13.0



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Sustainability Report 2022

053 1. Report Type

053 Scope of the Report

054 2. Sustainability at Pfeiffer Vacuum

054 2.1 Sustainability Strategy

061 2.2 Responsible Corporate Governance

065 3. Our Value Creation

067 3.1 Research & Development

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Supply Chain Management

071 3.3 Production

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088 Our Role in Society

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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.

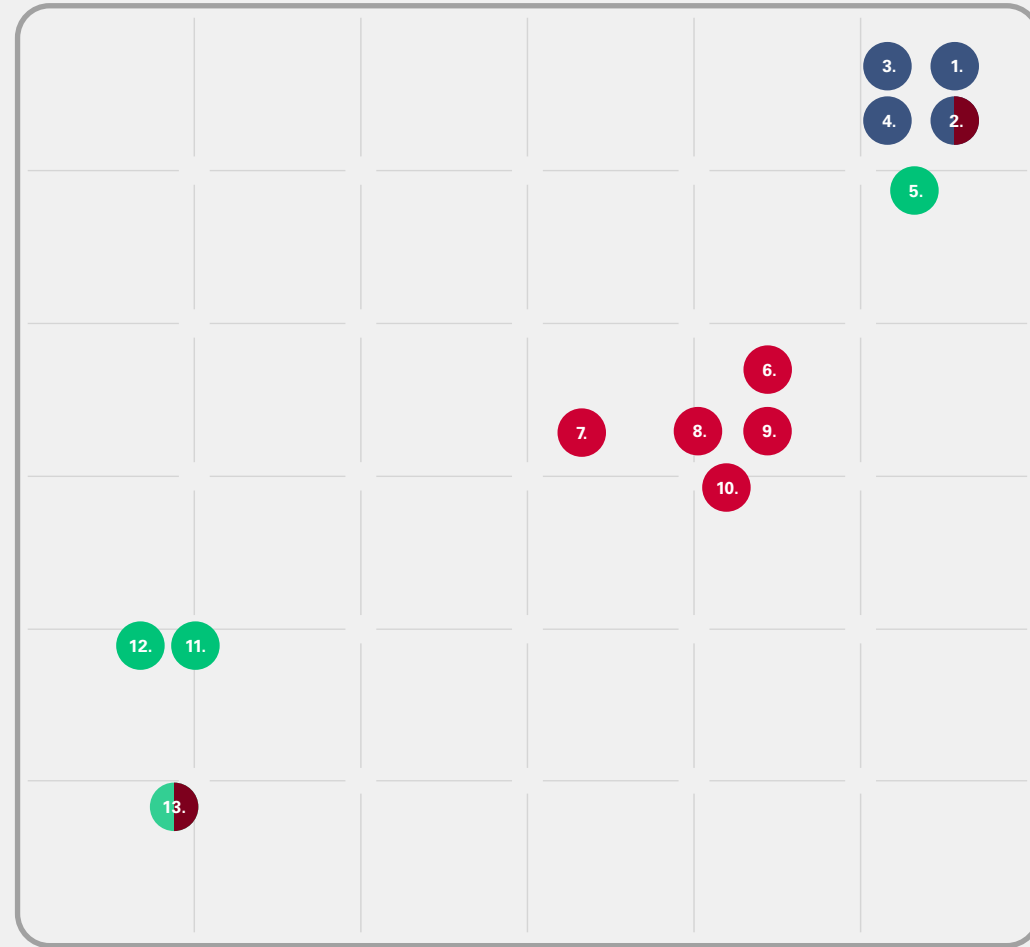
In the workshop series, we determined how significant various impacts are for establishing our most important sustainability topics. Here, we applied the proven logical method of reconciling the conflict between their relevance for our stakeholders and the environment and their relevance for us. We discussed 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

1. Corporate Governance and Compliance
2. Supply Chain and Human Rights
3. Digitalization and Cybersecurity
4. Quality Assurance and Product Safety
5. Reduction of CO₂ (Scope 1–3)
6. We Feeling and Life Purpose
7. Labor Law Compliance
8. Occupational Health and Safety
9. Equality and Diversity
10. Personnel Development and Working Conditions
11. Reduction of Waste
12. Reduction of Water Consumption
13. 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.

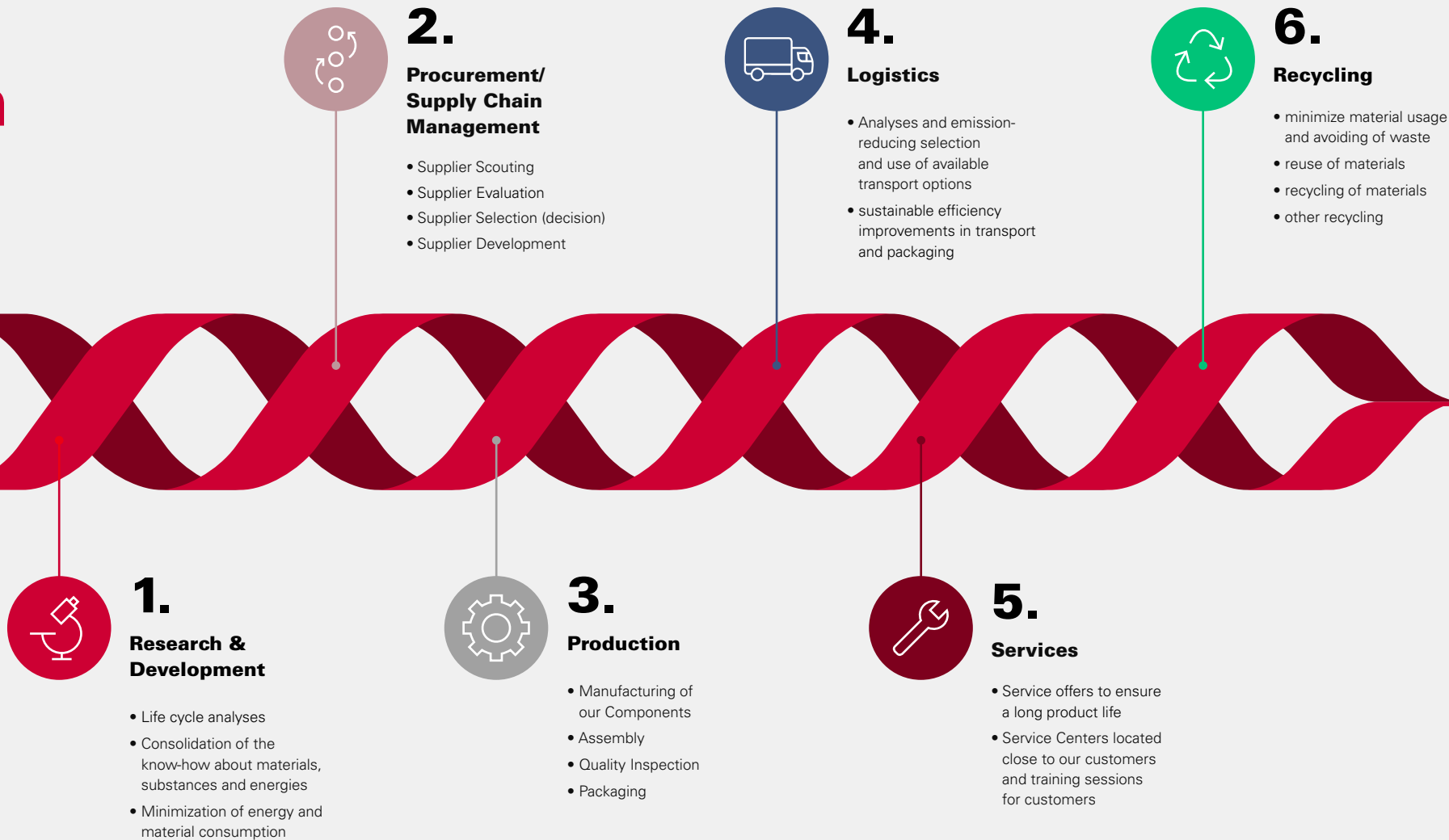
Having conducted a global security risk assessment, we installed a group-wide Information Security Policy as well as special regulations according to the specific requirements of a country, company or department. All Information Security Coordinators were trained in their functions. One of our major 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.

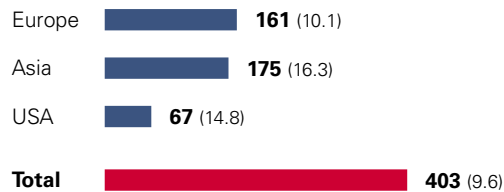
The most common type of workers who are not regular or full time employees are temporary workers. They mainly perform tasks in warehousing, logistics, manufacturing/processing and assembly. We report their headcounts and FTE in the same way as for regular or full time employees. In the countries where 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 %)

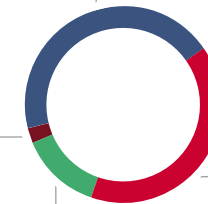
Apprentices

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 Anancy 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 environmentally 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).

Risk and Opportunities Report

ASSESSMENT OF THE MANAGEMENT BOARD OF OVERALL RISKS AND OPPORTUNITIES

In order to achieve sustained success and remain competitive, Pfeiffer Vacuum always strives to recognize early on and actively utilize opportunities that present themselves. Seizing opportunities often involves consciously taking risks but handling these responsibly. Overall, we strive to achieve a balanced relationship between opportunities and risks by facing and countering them systematically and in a controlled manner, while avoiding risks that could jeopardize the Company's existence.

Our risk strategy is geared to securing the continued existence of Pfeiffer Vacuum on a sustainable basis and increasing shareholder value in the long term. We achieve this primarily by taking opportunity-oriented and risk-balanced decisions, fostering a Company-wide risk culture and communication, planning and allocating resources in a controlled manner in the most efficient and effective way possible, limiting risks to an acceptable level, prohibiting actions or decisions that could jeopardize the Company's existence, and ensuring compliance with statutory regulations and internal guidelines.

An early risk warning system is necessary not only from a business management point of view, but also due to legal regulations, in particular § 91, Sub-Para. 2 of the German Stock Corporation Act ("AktG").

We are of the opinion that the risk and opportunity management system in place is suitable for identifying, analyzing and evaluating existing and potential risks and opportunities in order to manage them adequately. In our estimation and on the basis of the risk and opportunity management system in place, as well as taking into consideration the risks and opportunities discussed in this Risk and Opportunities Report, there are no identifiable risks to Pfeiffer Vacuum Technology AG and its subsidiaries, either as of the balance sheet date or at the time of preparation of the financial statements, that could jeopardize the Company's continued existence.

In accordance with § 317, Sub-Para. 4 of the German Commercial Code ("HGB"), the auditor examined whether the early risk warning system is suitable for the early identification of risks that could jeopardize the Company. This examination revealed no objections.

RISK AND OPPORTUNITY MANAGEMENT SYSTEM

The objective pursued by Pfeiffer Vacuum's risk and opportunity management system is to practice a global and functionally integrated risk management approach that is both flexible and equipped to respond to medium and long-term business developments, customer requirements as well as ad hoc business challenges, internal or external events or threats. Pfeiffer Vacuum assesses the identified risks on the

basis of systematic evaluation procedures and quantifies these risks both in terms of their financial impact on planned earnings figures in gross and net terms and in terms of their probability of occurrence. Opportunities are considered and documented in a process that is separate from Pfeiffer Vacuum's risk management system. A systematic risk and measure reporting system has been established for the present function-integrated risk management approach in order to regularly compare and analyze the overall risk position that is determined with the available risk cover funds within the framework of the risk-bearing capacity concept. Supplemented by the regular planning and reporting processes in Controlling, this ensures that the Management Board is informed about the current risk situation of the Company in a comprehensive and timely manner.

We define risks as possible future internal or external events or fluctuations that could have a negative impact on the achievement of our corporate objectives or result in deviation from the planned figures in the underlying corporate planning. Accordingly, we define opportunities as potential events or developments that could contribute to the achievement of our corporate goals.

Internal Control System (ICS)

In addition to reporting, our internal control system (ICS) helps us to identify and avoid risks in the daily processes that take place and thus prevent potentially undesirable developments. Furthermore, Internal Audit, as a process-independent body, conducts audits in order to monitor the risk management system and identify potential weaknesses. In the current fiscal year, the Management Board had no information that would suggest that there were any significant inefficiencies in the effectiveness or adequacy of the

RMS or ICS. Despite the information and control systems in place, the occurrence of risks cannot be completely ruled out. The statements on the effectiveness and appropriateness of the ICS and the RMS in this section are not subject to the statutory audit of the annual and consolidated financial statements.

Organization and processes of risk and opportunity management system

Overall responsibility for Pfeiffer Vacuum's effective risk and opportunity management system is borne by the Management Board. Identifying and exploiting opportunities is essential to ensure the continuous success of the Company. These opportunities are continuously evaluated by management, prioritized in the planning processes and implemented in the business process. The risk management system is being continuously developed and adapted to the latest internal and external requirements in close coordination between the Management Board and the Global Compliance & Risk Management department (Compliance). The current risk management policy (Group Policy: Risk Management) defines the principles, procedures, roles and responsibilities as well as the requirements for reporting risks and countermeasures. This is a Group-wide policy that applies to all employees, functional areas and business operations in every country in which Pfeiffer Vacuum is active. From the perspective of Pfeiffer Vacuum Technology AG as the parent Company, a Group-wide assessment is made of a potential threat to the Company's existence on the basis of a holistic overall risk inventory.

Identification of risks and opportunities

We view the identification of risks and opportunities at Pfeiffer Vacuum as an ongoing task and a component of our existing business processes. It comprises the systematic consideration and analysis of internal and external events and developments that could have a positive or negative impact on the achievement of our corporate goals.

As part of the existing reporting system, the Management Board, the Group Executive Committee and the global heads of functional areas are informed promptly about relevant risks. Above all, the regular exchange of information and interactions between the global functional area managers and the responsible employees in these functional areas help to ensure that they are informed about significant risks, unusual incidents or loss events. A systematic reporting system has also been established for the entire Pfeiffer Vacuum Group in order to report, consolidate and analyze information on risks and countermeasures in a structured approach and format using a GRC software solution.

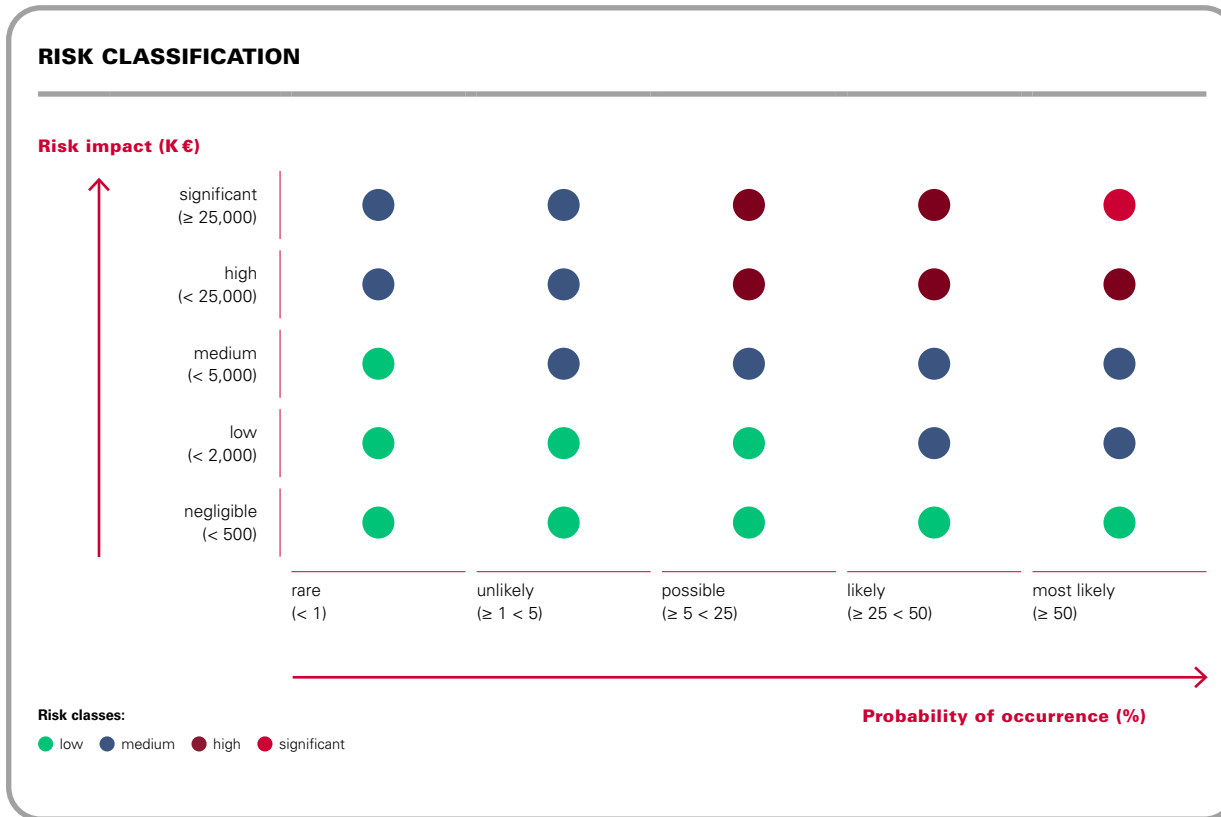
We carry out market and competition analyses to ensure that we can also make the most of opportunities in the sector and the economy as a whole.

To support a systematic approach to risk identification, we use predefined risk categories and risk clusters with explanatory descriptions. This categorization permits us to classify risks according to their cause. The risk clusters form generic risk subcategories and were derived from the Company's historical experience, the current risk situation and the typical risk landscape within the industry.

Risk assessment

The identified risks are assessed on the basis of two dimensions: the impact of the risk and the probability of occurrence (likelihood). The aim of the centrally defined uniform assessment is to estimate possible deviations in the performance indicators EBIT and cash flow for a three-year period. On the basis of the defined assessment criteria, risk classes are derived in accordance with the following table and individual risks are classified as low, medium, high and significant.

As part of the risk assessment method, potential risks are assessed before risk-responding measures are taken (gross risks) and the residual risks are assessed after the implementation of risk-responding activities have already been taken or are still necessary (net risks). The assessment in this report reflects only the net risks.



Risk reporting and management

In order to record relevant event risks, fluctuation risks and other risks in a structured manner, we have been using a standard GRC software solution worldwide since 2021. Risks not already included in the planning figures or the updated projections during the year are reported on a half-yearly basis as part of this risk inventory. The risk inventory covers a period of three years.

In addition to identifying and assessing risks, the risk managers are responsible for defining and implementing suitable risk mitigation measures for these risks and monitoring the effectiveness of the measures. When deciding on response measures, the costs and benefits of any measures must be taken into account. Operational risk responsibility, reporting and risk management lie with the operating units and, at a higher level, with the global heads of the functional areas.

The GRC software application used supports risk aggregation and risk analysis and provides risk results on the basis of a stochastic scenario analysis. The assessment of whether negative developments could jeopardize Pfeiffer Vacuum's continued existence is made by regularly analyzing the Company's risk-bearing capacity. The aggregated information about material risks and countermeasures as well as the assessment of the Group's risk-bearing capacity are the subject of discussions involving the Management Board and the Group Executive Committee as well as part of the reporting to the Audit Committee.

Risks that arise due to a special incident between the regular reporting dates of the risk management system and exceed a defined materiality threshold are reported immediately to the Management Board and documented through the established reporting channels.

EXPLANATION OF RISKS AND OPPORTUNITIES

In the following, the main categorization of Group risks is presented that are to be regarded as relevant from today's perspective. The risk classification in the following overview reflects how the risks within a risk category are assigned to a risk class (see "Risk Classification" chart) at mean. In order to remain consistent with the Outlook, a period of one year has been used as the basis for assessing the risks in this report.

OVERVIEW OF GROUP RISKS

Risk category	Risk classes			
	low	medium	high	significant
Strategic risks		●		
Financial risks		●		
Legal and compliance risks		●		
Operational risks				
Technology	●			
Procurement		●		
Supply chain		●		
Manufacturing	●			
Sales, service and marketing	●			
Information technology risks			●	
Personnel risks	●			
Environmental risks		●		
Project risks	●			

Strategic risks and opportunities

As a globally operating Group, Pfeiffer Vacuum is dependent upon the risk-prone global development of the economy. Economic downturns, financial market and exchange rate fluctuations, regulatory interventions, geopolitical uncertainties and tensions, and military conflicts can have a direct negative impact on our business development. Market-specific economic weaknesses, in particular in the semiconductor market, can also have a disproportionately high impact on the development of Pfeiffer Vacuum's sales revenues. In addition, uncertainties arising from international trade conflicts, economic policy sanctions, but also the increasing effects of climate change, can bear potential risks in the form of lost sales or cost increases for the Group.

One of the greatest threats to economic growth that can be seen at this time, and which could potentially lead to restrictions on the sale of products or services, is an intensification and/or expansion of geopolitical conflicts. Current political, cultural or socio-economic tensions are affecting the economy and holding back the performance of many companies. The outlook for global economic development is dominated by a high level of uncertainty due to imponderables concerning the further course of the war in Ukraine and the economic consequences of the war. These uncertainties, coupled with further constraints on the supply of energy, are causing significant price increases on the world markets in some cases and could even result in supply bottlenecks. Factors like these drive up manufacturing costs or can negatively affect production. Rapidly increasing energy costs can fuel inflation at the same time. Moreover,

a recession and economic downturn can result in shifts in purchasing decisions and customer demands that can pose a challenge to existing business plans. Although production itself at Pfeiffer Vacuum is not energy-intensive, we addressed the matter of our energy supply at once and put various backup solutions in place for all affected locations in Europe.

The Russian invasion of Ukraine is giving rise to fears that the conflict concerning the island republic of Taiwan, which has been ongoing for many years, could intensify and result in a further escalation between China and the USA. In view of the global importance of these two largest economies, this poses a particular risk whose impact on the entire economy is difficult to assess.

As a result of the safety measures implemented, the coronavirus pandemic had only a minor negative effect on business at Pfeiffer Vacuum during the past fiscal year. While the situation concerning the coronavirus in Europe has meanwhile eased, China's strict zero-Covid policy, that it has pursued since the beginning of the pandemic, and the associated extreme restrictions on entry, coupled with blockades of important trade hubs, has proved to be a burden on global trade and investments. How long the aftermath will continue to be felt is uncertain at this time. The easing of this policy resulted at times in further disruptions to supply chains as entire workforces fell ill. However, due to good inventories of supplies, we were able to cushion these disruptions completely.

Overall debt levels in EU countries, which have increased as a result of government spending on pandemic-related aid programs, humanitarian and military support for Ukraine, investments to secure energy supplies and to alleviate the burden on the population and the economy due to exploding energy costs, may also have a negative impact on economic growth, even if the debt burden of the EU remains relatively lower than that of the USA and Japan. Continuing supply bottlenecks on the procurement market, accompanied by further rises in prices, risk the emergence of stagflation. Furthermore, rising interest rates worldwide, that are used by central banks as an instrument to combat inflation, may result in lower investment and a fall in consumption.

We continuously monitor macroeconomic and socio-political developments, and communicate and discuss our findings and assessments within the Company-wide network of experts in order to identify potential risks in time and to find and implement suitable risk management measures.

Pfeiffer Vacuum has a balanced regional and market segment-related distribution of sales. This leads to a balance in the overall structure of sales in economically weak and growing markets and industries. This is because all regions and market segments are rarely affected to the same extent by deteriorating economic development.

The management of economic risk also includes the control of capacities and costs.

By using flexible working time models and exploiting available measures to increase capacities, we try where possible to adjust production capacities to changing developments in the order situation so that we can serve our customers in the best possible way.

We are confident that our broad strategic alignment with a focus on clearly defined markets will help us to counteract the risks and at the same time provide an opportunity to drive Pfeiffer Vacuum's dynamic development. Sales in Pfeiffer Vacuum's individual market segments are closely linked to global economic developments. The research and development market, for example, depends on government spending and focuses where research projects are concerned. The semiconductor market follows its own cycles, which offers opportunities during boom phases and involves risks during weak phases. The industry market segment brings together a heterogeneous group of industrial customers who require our vacuum solutions for certain production stages. Different industrial trends enable new areas of application for our vacuum solutions and help us to counteract negative general economic developments.

In order to reduce the risks stemming from dependence upon individual market segments, Pfeiffer Vacuum places a great deal of value on its broad-based alignment.

Pfeiffer Vacuum is subject to strong competition. In our opinion, we mitigate this risk by selling our products not on price but on quality. Our market position should be expanded primarily through innovative products and solutions, as well as a broader range of services. We see it as an opportunity that our business units are set to benefit from current and future megatrends such as digitization, electromobility and rapid developments in the life science industry, nanotechnology and the security sector. Against the backdrop of renewable energy expansion due to global climate change, we also see great potential in driving technology for a sustainable future and in contributing to a better world for coming generations.

With the goal we have set ourselves of always being close to our customers by our international presence we want to ensure that our customers are always the focus of our activities. Intensive cooperation with our customers, especially the OEMs, helps us to recognize requirements and trends at an early stage and thus actively shape changes in the market.

We see a significant opportunity to strengthen our competitive position in the vacuum technology industry in the strategic cooperation with Busch SE (Busch Group). Both companies are working continuously to realize synergies in the areas of purchasing, sales and service, research & development and IT. The objectives of the cooperation are to strengthen the competitive position in the market for vacuum technology, to better exploit the growth opportunities that arise and to improve cost structures.

Pfeiffer Vacuum's consolidated balance sheet includes goodwill and other intangible assets resulting from acquisitions, which are regularly tested for impairment. Due to potential changes in the value in use of these acquisitions, there is a general risk of goodwill and other intangible assets being impaired through profit or loss. This risk is reflected in the operating profit of the Pfeiffer Vacuum Group in 2021 with an amount of € 16.4 million.

Products and services that do not meet different and specific customer needs or keep pace with the latest technological developments can lead directly to potential sales decreases and thus to a loss of market share and reputation. For this reason, Pfeiffer Vacuum places innovative strength, digitization and diversity – combined with high quality in our products and services – at the center of its corporate activities.

Our goal is to offer our customers reliable, durable and high-performance products that are also energy-efficient. We reduce these risks through ongoing customer contact and the resulting market proximity. The information thus obtained about the different needs of our customers enables us to develop and offer up-to-date products that are suited to their demands. This allows us to expand both our competitive position as well as our brand recognition.

Maintaining high quality standards is of utmost importance to us. This includes continuous ISO 9001:2015 certification. Innovative products and a targeted expansion of the product portfolio offer us ways to better and more broadly serve existing markets and opportunities to generate additional sales volume by gaining market share. Selective acquisitions can help us to expand our product portfolio and our technology in order to strengthen our own market position.

Financial risks

As a result of our pronounced international operations and the high percentage of export business that this involves, we are subject to a foreign exchange risk.

The Company carries out active currency management to control foreign exchange risks. In order to minimize the impact of exchange rates, we enter into forward exchange contracts and occasionally forward exchange options. In the case of Group companies outside the eurozone, there is also a risk that stems from the valuation of foreign currency receivables at the close of the fiscal year, which may be reflected in the form of unrealized foreign currency losses.

Due to the conversion of income and expenses of Group companies outside the eurozone an unfavorable development of foreign currency exchange rates has a direct impact on Pfeiffer Vacuum's consolidated statements of income and cannot be hedged. A certain degree of compensation for this effect results from the fact that the subsidiaries outside of the eurozone record their own selling and general administrative costs, which change counter to sales (natural hedge).

As a function of the development of the euro relative to the respective foreign currency – there can be both positive as well as negative effects on sales and operating profit.

The risk of individual customers' insolvency always exists, independently of the economic situation. The current persistent inflation and rising interest rates could have a negative impact on customers' payment behavior. We counter bad debt risk with credit checks, diversified payment terms and active receivables management. In addition, we try to limit dependence on individual customers as far as possible.

Financial liabilities amounted to € 76.0 million on December 31, 2022 (corresponding to a share of 8.8 % of the balance sheet total). With cash and cash equivalents of € 68.2 million, there is therefore only a low level of net debt. This means that there is sufficient room for maneuver financially to assure the survival of the Company, even in difficult economic times. Our operational business generates sufficient liquid assets to enable the Company to continue to grow from within.

The high level of orders combined with the need for higher inventories of materials and components due to existing bottlenecks in the global supply chain is currently leading to an increase in capital tied up in inventories. A general increase in inventories may also lead to higher write-downs.

Legal and compliance risks and opportunities

As a result of Pfeiffer Vacuum's international business operations, the Company is subject to different country-specific legal risks. National and international contract law and taxation are of particular significance in this connection. These areas can have a direct impact on the Company's profitability and financial position.

Standardized terms and business conditions of contracts are always used to minimize the risk from product and service contracts. In the case of special contracts, the contract instrument is first reviewed in-house and then by external legal counsel, if necessary. The expertise required to assess day-to-day business is provided by our qualified staff in the legal, patent, tax and sales departments. For complex questions of national and international taxation or patent matters, we use the assistance of external tax consultants and patent attorneys.

As a manufacturer of technology products, Pfeiffer Vacuum is subject to product liability stemming from its business relationships with customers. Potential product liability risks are limited by setting high quality standards. In addition, appropriate product liability insurance policies are in place.

No legal disputes are currently pending whose outcome could have a material impact on the Company's earnings or financial position.

The focus of our compliance activities is primarily on the fields of anti-corruption, antitrust, data protection, information security and export control, as the occurrence of such risks can have a significant impact on our business activities and thus on our profitability, financial position and liquidity. Failure to do so could result in loss of reputation, criminal or civil prosecution, fines, penalties, injunctions, profit skimming, disqualification from participating in certain transactions or other restrictions.

To reduce these risks, the Company has implemented a global compliance management system. The aim of this is to avoid compliance breaches as far as possible by means of preventive measures, to detect any misconduct at an early stage, to react quickly in the event of confirmed violations and to penalize misconduct.

The effectiveness and efficiency of our compliance program is of central importance and we place particular emphasis on its strict implementation. In this way we set binding standards for our employees.

Due to the global orientation of our business operations, violations of export control regulations can have massive consequences for the Company as well as for the responsible actors. In addition to a reputation risk, there is also the threat of loss of export licenses and a personal liability risk. To counteract this, the Company has set up a global export control organization to analyze local and international laws and monitor their compliance.

Pfeiffer Vacuum also views itself as being exposed to competition and antitrust risks. The Company minimizes these risks through internal and external employee training as well as targeted exchange with external antitrust experts.

Protecting the personal rights of its business partners, employees and shareholders has always been an important and fundamental objective for the Pfeiffer Vacuum Group. As a trustworthy partner, the careful handling of the data made available to us is a high priority for us. We are constantly developing our data protection measures to meet our responsibility. Pfeiffer Vacuum estimates the compliance risks in this connection as relevant, while the probability of occurrence is low.

Operational risks and opportunities

Technology

Pfeiffer Vacuum develops, produces and distributes vacuum solutions that are highly demanding in terms of technology and quality. Pfeiffer Vacuum's business success and reputation depend heavily on the development of innovative products and solutions. New technical possibilities, trends and changing customer needs may require changes in technology and new business models.

According to our philosophy as a technology leader in the vacuum industry, our primary goal is to offer our customers innovative products and solutions with maximum process efficiency. Our innovative strength is the decisive key to our future business success. In order to utilize opportunities early on and to minimize risks, Pfeiffer Vacuum collaborates closely with customers and suppliers on projects that enable it to jointly advance new technologies to market maturity early on. In addition to our own research & development activities at several locations worldwide, we have an established network with various national and international universities and research institutes.

As is the case for many other globally operating technology companies, a growing complexity in "intellectual property rights" can also harbor potential risks for Pfeiffer Vacuum. Possible damages resulting from the violation of such rights may lead to payments of compensation claims right up to a conviction to refrain from selling a product or using a certain technology. In addition to ongoing monitoring of registered third-party patents, we are committed to monitoring our own patent protection rights in order to prevent unlawful use by third parties and avoid the associated disadvantages for Pfeiffer Vacuum.

Active management of intellectual property rights cases made it possible in the past fiscal year to continuously reduce the number of potential risk cases. This positive development is reflected in the lower overall evaluation of technology risks (risk class "low" after risk class "high" in the previous year).

Procurement, supply chain, production

On the procurement market there are fundamental risks, in particular in the form of supply bottlenecks, dependence on individual suppliers, price increases, quality problems, adverse changes in the economic and political environment and external disruptions, such as the current coronavirus pandemic.

The economic recovery and increased demand experienced in 2021 has resulted in shortages and supply bottlenecks that affect raw materials and pre-products. At the same time, the higher prices for raw materials, logistics and energy are exacerbated by ongoing geopolitical tensions, the war in Ukraine and the accompanying uncertainties. Protracted situations of this kind can negatively impact our business operations and lead to unpredictable increases in costs and delivery delays, which may adversely affect our profitability.

We counter these risks by carefully analyzing and selecting our potential suppliers and by conducting ongoing supplier qualification programs. We also access external business information databases and auditors. We counteract supply bottlenecks and supplier dependencies by continuously monitoring and optimizing our procurement processes through making greater use of diversified sources of supply and expanding the use of digital tools. In view of the current shortage of pre-products and components combined with extended delivery times and the occurrence of disruptions in supply chains and thus in our production, we have greatly stepped up the ongoing monitoring of

operationally important production materials, significantly increased the focus on close and timely communication with our suppliers, and expanded our inventory holding of critical products.

We pay special attention to the continuous optimization of our measures and processes against the instability and the increasing complexity in the supply chain. Achieving maximum efficiency can become a success factor in competition here. We seize the opportunity to improve our processes, reduce costs and at the same time offer better service.

Interruptions to production or production losses due to internal or external incidents, but also a lack of production capacity combined with strong growth in customer demand, are among the further risks that can negatively affect on-time product availability. In order to reduce downtimes due to technical causes to a minimum, modern production machinery and equipment as well as qualified technicians are used.

The desired best possible design of our production networks helps us to optimize the interaction and control of our production sites, avoid possible capacity bottlenecks and focus even more on the needs of our customers.

To enhance our future viability, we have set ourselves the goal of continuously improving our operational efficiency. This goal can be influenced by internal or external occurrences or undesirable developments. To minimize these risks, performance is continuously monitored and controlled.

Sales, service and marketing

In a difficult global economic situation, the potential loss of important customers or failure to acquire new customers could have a negative impact on our sales and service activities. Reasons for this could be inadequate customer relationship management, supply bottlenecks or delays in deliveries, inadequate response time or flexibility, or delayed market entry. Dependence on individual customers or their investment behavior also bears risks. We counter these risks by continuously expanding our global presence and delivering in-depth technical expertise.

By aligning our global sales organization with a focus on active customer management and acting accordingly, we intend to identify our customers' needs early on and offer the best possible product and service solutions. Long-standing customer relationships, good delivery reliability overall during the difficult past year, a broad product portfolio, innovative technology combined with our problem-solving approach and a high level of service and support help us to secure sales.

Information technology risks and opportunities

Due to the increasing digitization in all business processes, the requirements regarding confidentiality, integrity and availability of electronically processed information and the associated use of information technology (IT) are high. Business success increasingly depends on the security of information and digital assets. The use of digital assets, however, greatly increases the risk of external threats such as cybercrime ("cybercrime as a service") or cyber espionage. These threats reach new levels each year. Laws and regulations also increasingly require organizational structures and processes to identify and address information security risks (for example, the EU General Data Protection Regulation or the IT Security Act).

In addition to the external threat of cyberattacks and direct physical interference, there are also potential risks due to a lack of awareness or misconduct on the part of employees. These also include the risks of system failures, data loss and misconfigurations, which could lead to an interruption of business activities. Indirect consequences of such events could include reputational damage and significant cost burdens.

The risk of data losses is kept to a minimum at Pfeiffer Vacuum by performing daily backups of our complete corporate data. Our corporate databases with sensitive information are subject to a high security standard. All files created by our employees within the server environment are backed up on a daily basis. Our backup tapes are stored in secure, fireproof locations.

The activities of our in-house support team reduce system outages to a low level. The Company also uses regularly updated virus scanners and state of the art firewalls to protect its hardware and software against the risk of computer viruses and hacking.

Within the framework of risk management, information security and IT risks are systematically recorded and assessed with the support of the specialist departments. Despite preventive safety measures for logical access protection for program maintenance and IT operations, risks in this environment cannot be completely excluded. All employees are obliged to handle information such as confidential business, customer and employee data with care, to use information systems securely and to deal with risks transparently.

To ensure the availability of our IT systems and to protect them against unauthorized access and manipulation, at Pfeiffer Vacuum we have implemented an information security management system in accordance with ISO 27001. The objective is to use a methodical approach to permit the holistic identification and management of risks, implement appropriate measures and anchor information security as an integral part of the Company. Implementing continuous improvement processes also helps to ensure the effectiveness of the measures and allows them to be adapted rapidly to the requirements of business operations.

Personnel risks and opportunities

As a provider of vacuum solutions, which represents a special field of mechanical engineering, we are dependent on the high level of qualification of our employees and their commitment. Competition for a diverse and highly qualified workforce is very intense in our industry and the regions in which we do business. In addition, turnover rates in some Asian countries are generally somewhat higher than in Europe or the USA. There is a general risk of losing qualified employees or of not being able to recruit enough qualified personnel for our Company to meet the high demands of our customers.

We counter these risks with many globally and locally managed projects in order to strengthen employer branding and the recruitment, retention and development of employees. We place high value on global communication and on developing the use of new and modern channels of communication.

As part of our human resources management, we also monitor structural changes within our workforce to identify potential personnel requirements at an early stage and take appropriate measures.

Pfeiffer Vacuum provides its own training in a variety of vocations and offers internships for young professionals and students at many of our subsidiaries. In addition, we participate very successfully in the dual degree program of the Technical University of Mittelhessen in Germany, maintain a partnership for in-company training with the Georg-August University in Göttingen and are in continuous exchange with other schools and universities.

The subject of occupational health and safety is of great importance to our employees and to us as an employer. We therefore place the highest demands on safety and health protection at our operating sites. As a responsible employer, Pfeiffer Vacuum endeavors to limit the number of accidents and the frequency of days lost due to illness as far as possible. We also take our customers' security requirements very seriously. At Pfeiffer Vacuum, occupational safety at the principal manufacturing locations is the responsibility of at least one central internal or external expert who is assigned to the "Environment, Health and Safety" (EHS) department. With regard to the measures taken by our quality and EHS management, we refer to the detailed explanations in the section "Sustainability Report 2022".

Environmental risks and opportunities

As a globally operating Company, Pfeiffer Vacuum cannot avoid external risks. Increasing effects of climate change, natural disasters, fire and accidents, pandemics and other unforeseeable environmental influences, can lead to business interruptions or property damage to the Company's assets, as well as endanger the health of our employees.

As far as possible and economically justifiable, we have taken out insurance to minimize the financial consequences of such risks. In addition, we implement possible preventive measures and develop contingency plans for the rapid resumption of our business activities. In order to avoid environmental deficits, we set the highest standards for the implementation of preventive measures and compliance with regulatory requirements. Furthermore, we are repeatedly subject to local safety management audits.

Despite the only minor negative effect that the coronavirus exerted on our Company in 2022, it continued to impact the global economy and affect business operations and the social life of some regions.

At Pfeiffer Vacuum, the global Emergency Intervention Committee (EIC) continued to be active. This allows us to remain alert and to react promptly in the event of changes in energy supply, and enables us to implement appropriately adapted measures with a view to safeguarding the health and safety of our workforce. In addition to the focus on health and safety aspects, there is also a regular global exchange about the current development of Pfeiffer Vacuum and about countermeasures to control negative developments.

With the global corporate strategy, sustainability has become a component of the corporate mission statement of the Pfeiffer Vacuum Group. Sustainability, for the Group, means first and foremost ethical action with respect for all stakeholders and responsibility for the economic, ecological and social impact of business activities. The trend towards increased sustainability requirements on the part of our customers continues. We intend to exploit the resulting opportunities in a growing market even more intensively in the future through more sustainable innovations and targeted projects. For further information on sustainability, please refer to the section "Sustainability Report 2022."

Project risks and opportunities

Pfeiffer Vacuum's growth strategy and the related challenges are extensive and involve the entire organization. The implementation of our growth strategy means that a large number of projects and tasks need to be coordinated and harmonized worldwide. Both the scope of the tasks and their complexity pose considerable challenges for our employees. We mitigate these risks by promoting open communication, making continuous and targeted decisions, and providing additional resources as needed.

As part of the investments in the future that are being made, we are currently working on global process and system harmonization and the standardization of ERP landscapes in various IT projects. Demanding and cross-functional projects like these can result in delays in implementation, startup difficulties or unplanned additional costs. We counter these risks by bundling external and internal expertise during project implementation and putting thoroughness before the time factor.

MISCELLANEOUS

Risk management as it relates to consolidated accounting pursuant to § 315, Sub-Para. 4, German Commercial Code ("HGB")

The purpose of an internal consolidated accounting control system is to ensure adequate certainty by implementing controls that – despite identified risks – enable consolidated financial statements to be prepared in accordance with applicable standards.

The Management Board bears overall responsibility for the internal control and risk management system in respect to the consolidated accounting process. All companies included in the Consolidated Financial Statements are covered by a strictly defined management and reporting organization.

The principles, the organizational and procedural structures, as well as the processes of the internal control and risk management system relating to consolidated accounting, are stipulated throughout the entire Group in guidelines and organizational procedures that are adapted if needed to reflect current external and internal developments. Our internal experts also work together with external counterparts on a case-by-case basis. This enables us to ensure that our accounting is in compliance with IFRS accounting and valuation regulations.

In respect of the consolidated accounting process, we consider those characteristics of the internal control and risk management system to be key that can have a decisive influence on consolidated accounting and on the overall view presented in the Consolidated Financial Statements. In particular, these are the following elements:

- Identification of the major fields of risk and areas of control that are relevant to the consolidated accounting process
- Monitoring controls for enabling the consolidated accounting process to be supervised by the Management Board
- Preventive control measures in the finance and accounting systems of the Group and the companies included in the Consolidated Financial Statements, as well as in operational corporate processes that generate key information for drawing up the Consolidated Financial Statements, including the Management Report for the Group (including separation of functions)
- Measures that assure proper IT-based processing of facts and data that relate to consolidated accounting

Rating

Pfeiffer Vacuum Technology AG is not subject to any official rating by Moody's, Standard & Poor's or similar agencies.

Subsequent Events

There have been no significant changes in the Company's situation or the industry environment since the beginning of the fiscal year 2023.

Outlook

Overall economic development

The global economic challenges will initially continue to have a negative impact on economic momentum in 2023. The International Monetary Fund (IMF) emphasizes that the forecasts depend significantly on the developments of the Russia-Ukraine war and the further development of monetary policy by the central banks to combat inflation. In their latest forecast, the "World Economic Outlook", dated January 2023, the experts assume that the global economy will grow by 2.9 % this year. This means that the IMF economists' current expectations for global growth are 0.2 percentage points above their last forecast in October 2022. The slight upturn in the outlook is due to the unexpectedly high resilience that numerous economies have shown. Europe, in particular, and the German economy, which is particularly dependent on Russian energy supplies, are suffering from the consequences of the war, which is why the IMF expects a significant slowdown here in the current year. For 2024, the IMF analysts expect growth of 3.1 %.

For the world's largest national economy, the USA, the IMF economists are significantly more pessimistic than they were at the beginning of last year and only expect growth of 1.4 % for 2023. This corresponds to 0.9 percentage points less than in April 2022. In 2024, growth is expected to be 1.0 % again.

ECONOMIC DEVELOPMENT

GDP growth compared to the previous year¹

	2022	2023	2024
	in %	in %	in %
Worldwide	3.4	2.9	3.1
Industrial countries	2.7	1.2	1.4
Emerging and developing countries	3.9	4.0	4.2
Europe			
Eurozone	3.5	0.7	1.6
Germany	1.9	0.1	1.4
UK	4.1	-0.6	0.9
Emerging and developing countries Europe	0.7	1.5	2.6
North and Latin America			
USA	2.0	1.4	1.0
Latin America and Caribbean	3.9	1.8	2.1
Asia-Pacific			
China	3.0	5.2	4.5
Japan	1.4	1.8	0.9
Emerging and developing countries Asia	4.3	5.3	5.2

¹ Source: World Economic Outlook IMF, Jan. 2023

The IMF economists believe the Chinese economy will grow by 5.2 % in the current year. China is therefore benefiting from the abandonment of its zero-Covid strategy and the resurgent mobility of its population. The Chinese economy is not expected, however, to regain its former growth momentum. In the medium term, the IMF anticipates a growth rate of less than 4% in view of the slackening business momentum and slow progress in implementing necessary structural reforms. For 2024, the economic forecast is 4.5 %.

IMF economists have made the strongest course correction to growth expectations for Germany. With the high dependency on Russian gas supplies and the already high energy prices, the Ukraine war has hit the German economy hard. Global supply chain problems also continue to pose problems for the export-oriented economy. Consequently, the IMF is forecasting a drastic decline in the growth rate to 0.1 % for Germany in the current year. This corresponds to a correction of 2.6 percentage points compared to expectations in April 2022. For 2024, growth of 1.4 % is expected again.

The Federal Government takes a similar view based on the data from the Federal Statistical Office. The Annual Economic Report 2023 expects a slight increase in price-adjusted GDP of around 0.2 % for the current year. Russia's war of aggression against Ukraine and its economic impact, coupled with the weak development of the global economy, the persistently high energy and consumer prices and the efforts to secure future gas supplies are curbing the prospects for economic development.

For the eurozone, the IMF also sees a clearly below-average development in the current year. The forecast was corrected by 1.6 percentage points compared to April to a growth expectation of 0.7 %. For 2024, the IMF predicts an increase in economic output of 1,6 %.

According to the IMF, the global economy will lose further growth momentum in the current year before it could begin to pick up again in 2024. Nevertheless, the global growth forecast is below the historical (2000–2019) annual average of 3.1 %.

For the industrialized nations, the IFW analysts expect sustained above-average inflation averaging 4.6 % in 2023. The tightening of monetary policy is therefore having the desired slowing effect, so that the peak should have been passed. For developing and emerging countries, the IMF expects consumer prices to rise by 8.1 %. For 2024, experts expect inflation to continue to cool down to a rate of 2.6 % in the industrialized nations and 5.5 % in the developing countries.

Mechanical engineering and semiconductor market likely to continue on growth course

The German Mechanical Engineering Industry Association (VDMA) anticipates that the high inflation and the war in Ukraine with all its repercussions will continue to burden the industry for some time to come. Of particular concern is the increased return of various states and economic areas to protectionist measures. Difficulties in supply chains and due to material bottlenecks continue to exist. According to a flash survey conducted by the VDMA in December 2022, in which over 600 member companies participated, 74 % of all companies see their business activities impaired seriously or noticeably by such bottlenecks. Although the level remains high, there are signs of a slight easing in comparison with an earlier figure of 87 % in a similar survey in June 2022.

For 2023, the VDMA foresees a slight overall decline in production of 2.0 %. In view of setbacks experienced in previous years, the industry is thus proving its extreme robustness. Particular factors that contribute to this are the innovative technologies needed for a climate-neutral economy. Although the economic environment remains difficult with high energy prices and inflation rates, coupled with rising interest rates, 48 % of respondents to a flash survey from December 2022 are optimistic or cautiously optimistic about 2023. While 38% are undecided, only 14 % profess to be pessimistic or cautiously pessimistic.

According to calculations of the World Semiconductor Trade Statistics (WSTS), the global semiconductor market 2023 is expected to record a slight decline. The experts anticipate overall sales of around 557 billion U.S. dollars. As such, the forecast lies 4.1 % below the record level of the previous year. This development is characterized in particular by the 17.0 % dip in the memory segment to 112 billion U.S. dollars. In contrast, further important categories such as optoelectronics, sensors and discrete and analog components show single-digit growth rates. From a regional perspective, all regions will remain unchanged in 2023, with only the Asia-Pacific region expected to show a weaker figure than the previous year, with a decline of 7.5 %.

2023: Sales expected to stabilize

Against the backdrop of above-average delivery requests by our customers at the end of 2022 on the one hand and the current weak growth expectations for the global economy in 2023 on the other hand, the oversupply of semiconductors, particularly in the memory sector, and the trade restrictions of the United States of America in relation to China in the semiconductor market, we do not anticipate further organic sales growth in fiscal 2023. Based on our current forecast scenario, we anticipate consolidated sales for the current fiscal year 2023 approximately at the level of the fiscal year 2022 (€ 916,7 million). Nevertheless, our mid- to long-term goal remains to increase Group sales to one billion euros, and so we will continue to invest in our production capacities and workforce, as well as in research and development.

The further stabilization of supply chains and the availability of resources will however be decisive for achieving this target in 2023. In addition, sales will particularly depend on the implementation of capacity expansion investments in the semiconductor market and the stability of the global economy. As in previous years, these factors cannot be predicted with sufficient certainty and therefore result in a high degree of uncertainty in planning.

We are starting the year 2023 with well-stocked inventories and a high volume of orders on hand, which should have a stabilizing effect, particularly for the first half of 2023. Nevertheless, we also see a decline in new orders at the beginning of 2023, which could, after all, contribute to a stabilization of our delivery times in the course of the year, particularly in the second half-year, compared to the previous year.

These assumptions currently exclude continuing unforeseeable geopolitical risks, which further increases the degree of uncertainty. This applies particularly for the development of the war in Ukraine, whose consequences for the Pfeiffer Vacuum Group we still consider to be not material, and for the trade conflicts as well as the partial technological decoupling between the USA and China and potential further escalations. In both cases, the situation cannot be assessed conclusively for the time being.

Slightly weaker earnings development

Based on the forecasted sales development and due to the investments already made or further planned, we expect the EBIT margin for 2023 to slightly decrease to around 12%. This is mainly attributable to the fact that further cost increases are expected, due largely to inflation, which cannot be passed on to our customers in full. This then results in a corresponding slight decrease of the Group's EBIT. Based on an assumed sales level from 2022 an EBIT margin of around 12% would correspond to an EBIT of around € 110 million.

Capital investments increased once again

The investments currently planned for the 2023 fiscal year are again likely to be significantly above the level of 2022 and reach around € 100 million (2022 fiscal year: € 80.8 million). The main focus of these investments will be the expansion of production, logistic and service buildings and productivity improvements. These long-term investments also include sustainability goals, such as measures to reduce CO₂ emissions. In addition, the implementation and modernization of IT systems will continue in 2023. In view of the complexity of these investments in plant and equipment, it may well be the case that capacity and efficiency increases resulting from the currently planned measures for 2023 will not be realized until the following years.

Development of Pfeiffer Vacuum Technology AG in the year 2023

Due to the existing profit transfer agreement the earnings position of Pfeiffer Vacuum Technology AG continues to be significantly impacted by the sales development within Pfeiffer Vacuum GmbH. Mainly paralleling the anticipated development for the whole Group we expect that a stable development of sales compared to 2022 to be achievable. Accordingly, we also foresee an operational result on a par with 2022 for Pfeiffer Vacuum GmbH in the current fiscal year. On the level of Pfeiffer Vacuum GmbH, further burdens on earnings also have to be considered, amongst others, in connection with the implementation of a global ERP solution. It should be noted that these will also have an indirect impact on the earnings development of Pfeiffer Vacuum Technology AG in the year 2023 through the newly established Pfeiffer Vacuum Shared Services GmbH, a wholly owned subsidiary of Pfeiffer Vacuum GmbH. We therefore expect a result overall which lies slightly below the level of 2022.

Conclusion of a domination and profit and loss transfer agreement

Pangea GmbH, Maulburg, which, as an affiliate of Busch Group, is the majority shareholder of Pfeiffer Vacuum Technology AG, announced on November 6, 2022, that it intends to conclude a domination and profit and loss transfer agreement (DPLTA) with Pfeiffer Vacuum Technology AG as the dominated entity. Management Board decided to enter into contractual negotiations for this purpose. At the time of compilation of this combined management report, these negotiations had not yet been finalized. At the time of compilation of this Combined Management Report, particularly the approval of the Annual Shareholders Meeting of Pfeiffer Vacuum Technology AG is open. This approval requires a qualified majority of 75 % of the share capital present at the time the resolution is adopted. Finally, the DPLTA must be registered with the commercial register. Once all preconditions are fulfilled, Pfeiffer Vacuum Technology AG will in future transfer its entire profit, pursuant to German commercial law, to Pangea GmbH. At the same time, Pangea GmbH will be obliged to compensate any annual net loss of Pfeiffer Vacuum Technology AG. This means that once the DPLTA becomes effective, the minority shareholders will be entitled to receive a compensation (*Abfindung*) from Pangea GmbH pursuant to § 305 German Stock Corporation Act ("AktG") and a recurring compensation payment (*Ausgleichszahlung*) pursuant to § 304 "AktG".

Dividend proposal

In view of the continuing and further increased scale of the investment program and the resulting increase in liquidity requirements, the Management Board is therefore proposing a reduced dividend of € 0.11 per share (previous year: € 4.08 per share) for fiscal 2022. This would result in a total pay-out of € 1.1 million (previous year: € 40.3 million). The Management Board is firmly convinced that it is essential to continue to implement the investment program, irrespective of economic cycles, in order to strengthen Pfeiffer Vacuum's market position over the medium and long term. In addition to the need for all shareholders to participate in this financing, it will nevertheless be necessary to take out bank loans. In view of the record dividend paid out last year, the Management Board continues to believe that shareholders are receiving an appropriate share in the Company's success.

DIVIDEND FIGURES

		2022	2021
Dividend per share	in €	0.11 ¹	4.08
Total pay-out	in € millions	1.1 ¹	40.3

¹ subject to the approval of the Supervisory Board and the Annual General Meeting

Forward-looking statements

The statements, estimates and other information in our outlook are based on assumptions related to the development of the future overall economy and the industry that remain subject to considerable uncertainty. These assumptions reflect the understanding at the time of preparing the Management Report. There are risks and uncertainties relating to the probability of the statements and estimations made here, meaning that the actual developments may deviate significantly.

Other Information

Final declaration of the Management Board's report on relations with affiliated companies pursuant to § 312 of the German Stock Corporation Act ("AktG")

Pfeiffer Vacuum Technology AG is a dependent company of Busch SE, Maulburg, Germany, as defined in § 312 of the German Stock Corporation Act. Pursuant to § 312, Sub-Para. 1, German Stock Corporation Act ("AktG"), the Management Board of Pfeiffer Vacuum Technology AG has therefore prepared a report of the Management Board on relationships with affiliated companies, which contains the following concluding statement:

"Our Company received appropriate consideration for each legal transaction from January 1, 2022 to December 31, 2022 listed in the report on relationships with affiliated companies. No measures were taken that resulted in a disadvantage to the Company. This assessment is based on the circumstances known to us at the time the reportable legal transaction or the measures took place. There were no reportable omissions of measures in the reporting year."

Takeover-relevant information pursuant to §§ 289a, 315a of the German Commercial Code ("HGB")

The subscribed capital of Pfeiffer Vacuum Technology AG as of December 31, 2022, remains unchanged at K€ 25,261 and consists of a total of 9,867,659 no-par value bearer

shares. There are no different classes of shares currently or previously existent, so all shares have the same rights, in particular the same voting and dividend entitlement rights. Accordingly, the calculated share of the subscribed capital amounts to € 2.56.

As of December 31, 2022, Dr. Karl Busch, Ms. Ayhan Busch, Ms. Ayla Busch, Mr. Sami Busch and Mr. Kaya Busch, all of Germany, according to their own statements, held a total of 63.66 % of the voting rights in the Company (previous year: 62.96 %). No further information is available to us. The shares are held indirectly through Pangea GmbH, Maulburg, Germany, and other independent legal entities belonging to the family-run Busch Group, and are deemed to be held by the persons named.

To the best of our knowledge, there were no other shareholders with a holding of more than 10 % as of December 31, 2022 and also as of December 31, 2021.

Amendments to the Articles of Association can be adopted by the Annual General Meeting with a simple majority of the share capital present at the Annual General Meeting, unless a larger majority is required by law.

To the best of our knowledge, there are no restrictions on voting rights or the transfer of shares.

According to the Articles of Association of the Company and §§ 84 and 85 of the German Stock Corporation Act ("AktG"), Management Board members are appointed by the Supervisory Board for a maximum of five years. Reappointments or extensions to the term of office are permitted for a maximum of five years in each case.

Through a resolution of the Annual General Meeting on May 23, 2018, the Management Board is authorized to increase the subscribed capital one or more times by

€ 12,630,602.24 or 4,933,829 shares in exchange for cash and/or contributions in kind (authorized capital). This authorization is valid until May 23, 2023 and requires the approval of the Supervisory Board.

According to the resolution of the Annual General Meeting on May 23, 2019, the Management Board is authorized to issue fractional bonds with option or conversion rights and/or option or conversion obligations, profit participation rights and income bonds (or combinations of these instruments) with an aggregate nominal value of up to € 200,000,000.00 and to grant the holders conversion rights of up to 2,466,914 no-par bearer shares of the Company having a pro-rata amount of the share capital of up to € 6,315,299.84. This authorization is valid until May 22, 2024 and requires the approval of the Supervisory Board.

At the Annual General Meeting on May 20, 2020 the shareholders authorized the Management Board to repurchase treasury shares pursuant to § 71, Sub-Para. 1, No. 8, German Stock Corporation Act ("AktG"). This authorization covers the buyback of a proportionate amount of the share capital of up to € 2,526,120.70 (986,766 shares corresponding to 10.0 % of the share capital at the time the resolution was adopted), requires the approval of the Supervisory Board and is valid through May 19, 2025. It remains unchanged as of December 31, 2022 that the Corporate Group does not own treasury shares.

For information relating to the employment contracts of the members of the Management Board, please refer to the corresponding paragraphs in the remuneration report (an element of this Combined Management Report).

There are no further aspects that would require discussion within the context of §§ 289a, 315a, German Commercial Code ("HGB").

Declaration on Corporate Governance

A central component of the declaration on corporate governance pursuant to § 289f, Sub-Para. 1, sentence 2 and § 315d of the German Commercial Code (“HGB”) is the reporting on the corporate governance of the Company. Principle 23 of the German Corporate Governance Code (GCGC 2022) states that the Supervisory Board and the Management Board shall report annually on the corporate governance of the Company in the declaration on corporate governance. The Management Board and Supervisory Board therefore issue the declaration on corporate governance jointly, each being responsible for those parts of the declaration that concern them.

Pfeiffer Vacuum complies with virtually all Code recommendations

On November 4, 2022, the Management and Supervisory Boards of Pfeiffer Vacuum Technology AG submitted the declaration of compliance for the year 2022 pursuant to § 161 of the German Stock Corporation Act (“AktG”). The declaration of compliance has been made permanently accessible to shareholders on the Company’s website in the section Pfeiffer Vacuum/Corporate Governance and is given below.

Declaration of compliance dated November 4, 2022

The German Stock Corporation Act (AktG) § 161, Sub-Para. 1, sentence 1 requires the Management and Supervisory boards of listed companies to issue an annual declaration regarding the recommendations of the “Government Commission on the German Corporate Governance Code” (hereinafter: Government Commission). The Management and Supervisory Board of Pfeiffer Vacuum Technology AG issued their last declaration of compliance according to § 161 AktG on November 4, 2021 in accordance with the German Corporate Governance Code as amended on March 20, 2020 (hereinafter: GCGC 2020).

On April 28, 2022, the Government Commission amended the German Corporate Governance Code to bring it into line with the requirements of the Financial Market Integrity Strengthening Act (FISG) and the Second Management Positions Act (FüPoG II). The new version of the German Corporate Governance Code came into force upon its publication in the Federal Gazette on June 27, 2022 (hereinafter: GCGC 2022).

This being said, the Management and Supervisory Board of Pfeiffer Vacuum Technology AG declare the following:

Since submitting the last declaration of compliance, the Corporation has complied with all the recommendations of the German Corporate Governance Code 2020, with the following exceptions:

- The recommendation in G.10 sentence 1, according to which the variable components of Management Board remuneration should be predominantly invested in shares or appropriate share-based awards, was not complied with since this would expose the members of the Management Board to the risk of negative share price developments based on market fluctuations over which the Management Board has no influence. The recommendation in G.10 sentence 2, according to which long-term variable awards should only be available after four years, was also not complied with. Instead, long-term variable remuneration, which is paid out following the Annual General Meeting at the end of each three-year period, is provided for on the basis of a three-year assessment period. The Supervisory Board believes that this adequately assures the desired long-term incentive, and that this would not be enhanced by a later payout date.

From now on and in the future, all recommendations of the German Corporate Governance Code 2022 in the version of April 28, 2022 will be conformed to, with the following exceptions:

- The recommendation in G.10 sentence 1, according to which the variable components of the Management Board remuneration should be predominantly invested in shares or granted as appropriate share-based awards, will not be complied with in the future for the same reasons as before (see above). The recommendation in G.10 sentence 2, according to which long-term variable awards should only be available after four years, will also not be complied with in the future for the same reasons as before (see above).

Dual management system: Management Board and Supervisory Board

As a stock corporation based in Asslar, Germany, Pfeiffer Vacuum Technology AG is also subject to the provisions of the German Stock Corporation Act ("AktG"). One of the basic principles enshrined in this is the dual management system, which assigns the management of the Company to the Management Board and the appointment, advice and supervision of the Management Board to the Supervisory Board. These two bodies are strictly separated as corporate organs, both in terms of their members and their responsibilities. Both bodies work together closely in the interests of the Company.

Management Board

In the 2022 fiscal year, the Management Board consisted of

- Dr. Britta Giesen, Diploma in Industrial Engineering, Master of Engineering (Chief Executive Officer) and

- Wolfgang Ehrk, Diploma in Industrial Engineering (Chief Operations Officer).

The members of the Management Board are responsible for the further development and strategy of the Company. They are also involved in the day-to-day running of the Company and bear operational responsibility.

The Supervisory Board appointed Dr. Britta Giesen as a member of the Management Board with effect from October 1, 2020. Since January 1, 2021, she has been Chairwoman of the Management Board of Pfeiffer Vacuum Technology AG.

With effect from January 1, 2020, Mr. Wolfgang Ehrk was appointed as a member of the Management Board of Pfeiffer Vacuum Technology AG and assumed the function of COO within the Management Board.

In addition to the requirements of the German Stock Corporation Act ("AktG"), the German Corporate Governance Code (GCGC) and the Rules of Procedure, the long-term succession planning pursued by the Supervisory Board together with the Management Board also takes into account aspects such as the appropriate participation of women and diversity. Taking particular account of the specific qualification requirements and the aforementioned criteria, the Management Committee creates an ideal profile as a basis on which to draw up a shortlist of available candidates. Structured interviews are held with these candidates. A recommendation is then submitted to the Supervisory Board for resolution. If necessary, the Management Committee enlists the support of external consultants in developing the requirement profiles and selecting the candidates.

The Management Board is supported in its management tasks by a Group Executive Committee which was newly formed in 2021. Together with the members of the Management Board, this body currently comprises the Chief Sales Officer, the Chief Financial Officer, the Chief Technology Officer and the Chief People and Culture Officer.

The four-eyes principle applies in exercising the duties and responsibilities of the Management Board: major decisions are always made jointly. Personal expenditures, such as travel and entertainment expenses, require the approval of another Management Board member. In addition to close cooperation and reciprocal information on a daily basis, board meetings are held every two weeks. The Management Board works exclusively for Pfeiffer Vacuum. In this context, the Management Board members are also members of supervisory organs of various subsidiaries of the Company. In addition to this, Dr. Giesen has also been a member of the supervisory board of Rheinmetall AG, Düsseldorf, Germany, since May 11, 2021. Beyond this, the

FUNCTIONS OF THE MANAGEMENT BOARD MEMBERS

Dr. Britta Giesen CEO

- Group Strategy
- Global Sales & Service
- Global R&D
- Product Management
- Information and Communication Technologies
- Finances and Controlling
- Communication
- Compliance
- CSR
- HR
- Investor Relations

Wolfgang Ehrk COO

- Production
- Purchasing
- Quality and EHS (Environment, Health and Safety)
- Supply Chain
- Continuous Improvement

CEO = Chief Executive Officer, COO = Chief Operations Officer

members of the Management Board do not hold any other memberships in supervisory or regulatory bodies outside the Pfeiffer Vacuum Group.

In accordance with the recommendations of the German Corporate Governance Code, the Supervisory Board has set an age limit for the members of the Management Board. Accordingly, members of the Management Board should not, as a rule, be older than 65 years.

Supervisory Board

Pursuant to the statutory requirements and the Articles of Association of Pfeiffer Vacuum Technology AG, the Supervisory Board consists of a total of six persons, comprised of four members to be elected by the shareholders at the Annual General Meeting and two employee representatives, in accordance with the German One-Third Participation Act ("Dritteltbeteiligungsgesetz"). In accordance with the recommendations of the German Corporate Governance Code, the Supervisory Board has set an age limit for its members. This is 70 years for all members of the Supervisory Board at the time of appointment to the Supervisory Board.

In 2021, periodic elections were held for all members of the Supervisory Board. There were no changes in the composition of the Supervisory Board in 2022.

The Supervisory Board therefore comprises the following persons as of December 31, 2022:

- Ayla Busch (Chairwoman),
Co-CEO Busch SE, Maulburg
- Götz Timmerbeil (Vice Chairman),
Auditor and Tax Consultant
- Timo Birkenstock (Employee Representative),
Development Engineer
- Minja Lohrer,
Director
- Henrik Newerla,
Self-employed Management Consultant
- Stefan Röser (Employee Representative),
Chairman of the Employee Council

The shareholder representatives on the Supervisory Board, Ayla Busch, Minja Lohrer, Henrik Newerla and Götz Timmerbeil, were elected for a four-year term of office by the Annual General Meeting on May 12, 2021. According to this, they were elected for a term of office up to the end of the Annual General Meeting that resolves on the formal approval of the actions of the Supervisory Board for the fiscal year 2024. This same end of term applies for the incumbent employee representatives on the Supervisory Board, Timo Birkenstock and Stefan Röser.

For election of the Supervisory Board Members representing the shareholders, the Nomination Committee submits a nomination suggestion to the Supervisory Board. When selecting the candidates, care is taken to ensure that at all times there are members of the Supervisory Board who possess the requisite expertise, skills, and professional experience. The international activities of the Group and potential conflicts of interest are also taken into account. In addition, the Supervisory Board should at all times include a sufficient number of members who are independent of

the Management Board and the Company and independent of the controlling shareholder. In 2018, the Supervisory Board developed a profile of skills and expertise for the Supervisory Board and has since regularly adapted it to current requirements. The Supervisory Board has set itself the following objectives for its composition: Internationality, avoidance of potential conflicts of interest, independence, time availability, generation mix and age limit, length of membership, diversity (including diversity of professional backgrounds and an appropriate consideration of women). The skills and expertise profile in the updated version of November 2022 is permanently available on the Company's website in the section Investor relations/Corporate Governance/Supervisory Board. The Supervisory Board has also set itself the specific objective that more than half of the shareholder representatives on the Supervisory Board are independent of the Company and its Management Board in accordance with the recommendation in C.7 GCGC 2020 and that at least one shareholder representative is independent of the controlling shareholder in accordance with recommendation C.9 GCGC 2022. After detailed assessment, it has determined that currently all shareholder representatives on the Supervisory Board are independent of the Company and its Management Board, and that all shareholder representatives, with the exception of Ms. Ayla Busch, are also independent of the controlling shareholder. To this extent, the Supervisory Board has complied with the recommendation in C.7 (2) and taken into account the indicators mentioned there. In this respect, with regard to Mr. Götz Timmerbeil and Ms. Ayla Busch, the Supervisory Board has reached the above-mentioned conclusions concerning their independence based on the following reasons: Mr. Götz Timmerbeil has been a member of the Supervisory Board since 2001. Since then, however, the Company has undergone a fundamental change in its corporate structure; the acquisition of a majority shareholding by the Busch Group has substantially altered the ownership structure, and the

Management Board has also been restructured in terms of personnel. The Supervisory Board is therefore convinced that Mr. Götz Timmerbeil's longstanding membership of the Supervisory Board does not affect his independence. Ms. Ayla Busch, as co-CEO and co-owner of Busch SE and as legal representative and indirect shareholder of the significant shareholder Pangea GmbH, is not independent of the controlling shareholder within the meaning of C.9 (2) GCGC 2022. Ms. Ayla Busch, on the other hand, is independent of the Company and the Management Board.

It is true that the Relationship Agreement has existed between Busch SE and the Company since May 2019, which could be regarded as a material business relationship for the Company within the meaning of C.7, sentence 3, second indent, of the GCGC 2022. However, the Supervisory Board is convinced that there is no evidence whatsoever that Ms. Busch's independence vis-à-vis the Management Board and the Company could be impaired as a result of the Relationship Agreement. On the contrary, due to her proximity to the controlling shareholder, Ms. Busch is particularly well placed to exercise her control function vis-à-vis the Management Board free of any considerations concerning the latter or the Company steered by the Management Board.

Currently, the Supervisory Board fulfills all these objectives, and it is also intended to appropriately take these objectives into consideration for future nominations. No remuneration or benefits for personal service rendered, especially consultation and brokerage services, were paid or granted to the members of the Supervisory Board during the period under review. No potential conflicts of interest requiring immediate disclosure to the Supervisory Board arose for Management and Supervisory Board members in fiscal 2022.

The establishment of an Audit Committee is a long-standing practice at Pfeiffer Vacuum. The Chairman of the Audit Committee, Götz Timmerbeil, as a certified public accountant is particularly knowledgeable and experienced in the field of auditing financial statements, including the auditing of sustainability reports. Minja Lohrer contributes her experience to the work of the Audit Committee in the field of financial accounting by virtue of her university degree and her many years of experience as a result of her involvement in management and administrative boards, particularly in the areas of private equity and financing. This includes the application of accounting principles and the structuring of internal control and risk management systems, including in relation to sustainability reporting. The task of the Nomination Committee is to suggest suitable candidates to the Supervisory Board who can then recommend them for nomination to the Annual General Meeting. Additionally, a Management Committee was formed. In the past, the Management Committee has deliberated the personnel matters of the board members in detail before – in accordance with the requirements of the German Corporate Governance Code –

being resolved by the full Supervisory Board. The determination of Management Board remuneration is thus subject to the provisions of the German Act on the Appropriateness of Management Board Remuneration. In addition, a committee was formed already in the previous year to monitor transactions with related parties ("Related Party Transactions" or "RPT"). The formation of this RPT Committee was in particular a consequence of the entry into force of the act implementing the Second Shareholder Rights Directive ("ARUG II") and the relevant tasks that fall to the Supervisory Board.

The committee memberships of the Supervisory Board members can be seen in the following overview.

The Company has taken out pecuniary loss liability insurance (so-called D&O insurance) for the members of the Management Board and Supervisory Board.

PERSONNEL COMPOSITION OF THE SUPERVISORY BOARD COMMITTEES

	Nominating Committee	Audit Committee	Management Committee	RPT Committee
Ayla Busch	Chairwoman	Yes	Chairwoman	—
Götz Timmerbeil	Yes	Chairman	Yes	Chairman
Timo Birkenstock	—	—	—	Yes
Minja Lohrer	Yes	Yes	Yes	—
Henrik Newerla	—	—	Yes	Yes
Stefan Röser	—	—	—	—

The status regarding implementation of the overall competence profile (including criteria for the composition of

the Supervisory Board) can be seen from the following qualification matrix.

QUALIFICATION MATRIX FOR THE MEMBERS OF THE SUPERVISORY BOARD OF PFEIFFER VACUUM TECHNOLOGY AG

		Ayla Busch	Götz Timmerbeil	Timo Birkenstock	Minja Lohrer	Henrik Newerla	Stefan Röser
Length of membership	Member since	10/2017	06/2001	05/2021	05/2021	04/2018	01/2020
Personal suitability	Independent ¹		●	●	●	●	●
	No overboarding ¹	●	●	●	●	●	●
	Time availability	●	●	●	●	●	●
	No conflicts of interest		●	●	●	●	●
Diversity	Year of birth	1969	1967	1966	1975	1957	1965
	Gender	female	male	male	female	male	male
	Nationality	German	German	German	Finnish and Swiss	German	German
Professional competence	Innovation, research and development	●		●	●	●	
	Manufacturing and sales	●	●	●	●	●	●
	Digitalization and IT	●		●		●	
	Controlling, risk management and compliance	●	●		●	●	
	Finance, accounting and auditing	●	●		●	●	
	Financial expert ²		●		●		
	HR competence, in particular recruiting and development of executives and employee matters	●	●	●	●	●	●
Extensive international experience	Sustainability, in particular familiarity with Company-relevant environmental, social and governance aspects	●	●	●	●	●	●
		●	●	●	●	●	

¹ Within the meaning of GCGC

² Within the meaning of § 100 Sub-Para. 5 of the German Stock Corporation Act ("AktG") and D.3 GCGC

● Criterion met, on the basis of a self-assessment by the Supervisory Board. One point signifies at least "good knowledge" and therefore the ability to understand relevant issues well and make informed decisions on the basis of existing qualifications, knowledge and experience acquired while working as a member of the Supervisory Board (many years of service on the Audit Committee, for example) or training measures attended regularly by all members of the Supervisory Board.

Collaboration between the Management and Supervisory Boards

As a rule, the Supervisory Board annually reviews the effectiveness and efficiency of its activities and its committees once a year. This review is carried out on the basis of an extensive catalog of questions with which the assessments of all members of the Supervisory Board are collected, in particular with regard to the following key topics: frequency of meetings as well as preparation and conduct of meetings, committee work and information dissemination, reporting and information by the Management Board, resolution of internal board conflicts and corporate governance, personnel competence, corporate strategy and handling of important measures and transactions as well as risk management and accounting. These topics are discussed at the plenary meetings of the Supervisory Board. An external expert is regularly consulted for assistance in relation to such efficiency reviews. The Supervisory Board conducted its last self-assessment in its meeting on December 7, 2022 with the assistance of an external expert. The meeting was moderated by an external expert. As a result, the organization of the activities of the Supervisory Board and its committees was found to be appropriate and efficient.

The following active members on the reporting date exercised further mandates. These are supervisory board mandates unless otherwise indicated:

- Götz Timmerbeil
 - Richard Stein GmbH & Co. KG, Engelskirchen (Chairman of the Advisory Board).

Close and trustful collaboration between the Management and Supervisory Boards is an essential prerequisite for good corporate governance and serves the good of the Company. The rules of procedure for the Management Board stipulate

that the Supervisory Board must give its approval for significant business transactions. Supervisory Board meetings are held at least twice a year in this context, during which the members of the Management Board report in detail on the course of business operations as well as on the implementation of the strategy agreed upon with the Supervisory Board. The number of Supervisory Board Meetings held exceeds this minimum. If necessary, other executives also explain the current issues in their respective areas of responsibility. If needed, additional special meetings are held. The Management Board reports to the Supervisory Board on the general condition of the Company, including the risk situation and the strategic targets, through a monthly reporting system.

Shareholders and Annual General Meeting

The Annual General Meeting is the supreme body of the corporation. At the Annual General Meeting, shareholders may exercise their voting rights themselves, through a proxy of their choice, or a proxy nominated by the Company who is bound to act on their instructions. The shareholders make key decisions at the Annual General Meeting about the allocation of profits, amendments to the Articles of Association, or the approval of share repurchase programs. All information and documents essential for the Annual General Meeting will be provided to the shareholders in a timely manner. The agenda and an explanation of the conditions of participation in addition to the shareholders' rights will generally be announced duly according to the legal requirements before the Annual General Meeting date. All documents and information for the Annual General Meeting are also available on our website. In addition, it is possible to electronically direct questions to the employees of our Investor Relations Department. Using our financial calendar, which is made public in the Annual Report, in the quarterly reports, and on our website, we inform shareholders and

interested parties about key dates, publications, and events throughout the year. In addition, we maintain close ties with our shareholders through our active Investor Relations work. Moreover, it is also possible to contact the Company with questions at any time.

Remuneration

The remuneration for members of the Management and Supervisory Boards is detailed in the section "Remuneration Report" of the combined Management Report. In addition, the remuneration systems for Management Board and Supervisory Board members are made accessible on the Company's website within the Investor Relations section (ir.pfeiffervacuum.com). The last Annual General Meeting resolution confirming the remuneration system for the Management Board in accordance with §§ 87a Sub-Para. 1, 120a Sub-Para. 1 of the German Stock Corporation Act ("AktG") was passed at the Annual General Meeting on May 19, 2022. The last Supervisory Board resolution confirming the remuneration system for the Supervisory Board within the meaning of § 113 Sub-Para. 3 of the German Stock Corporation Act ("AktG") was passed at the Annual General Meeting on May 12, 2021. Both remuneration systems are available for viewing on the above-mentioned Company website. The Annual General Meeting on May 19, 2022 also approved the Company's remuneration report for 2021. An approval rate of 97.03 % of the share capital present was achieved. The remuneration report for 2021 is also available on the Company's website.

Transparency

The claim to provide all target groups promptly with the same information at the same time is a high priority in our corporate communications. One of the ways that this is manifested is that all relevant information is published in

German and in English. Shareholders and interested parties can directly obtain information on current developments within the Group on the Internet. All ad-hoc releases by the Pfeiffer Vacuum Technology AG are made available on the Company's website. The purchase and sale of Pfeiffer Vacuum shares by members of the Management Board and Supervisory Board will be published immediately pursuant to Article 19 of European Regulation No. 596/2014 (Market Abuse Regulation), in Europe and on the Company's website at group.pfeiffervacuum.com.

Equality

In January 2018, pursuant to § 111, Sub-Para. 5 of the German Stock Corporation Act ("AktG"), the Supervisory Board determined a women's quota of 16.67 % for the Supervisory Board and 25 % for the Management Board and a deadline for reaching the targets by December 31, 2020. These targets were met or exceeded even before the deadline and are currently still exceeded: The proportion of women on the Supervisory Board (at the time of submission of the declaration) is currently 33.33 %, and on the Management Board 50 %. In February 2022, the Supervisory Board set itself the goal of achieving a proportion of women of 50 % in the Supervisory Board and 50 % in the Management Board within 5 years in accordance with § 111, Sub-Para. 5, German Stock Corporation Act ("Aktengesetz"). The provision contained in § 76, Sub-Para. 4 of the German Stock Corporation Act ("AktG") refers to management levels at Pfeiffer Vacuum Technology AG only. Due to its function as a holding company, this Company only has very few employees and there were no further management levels below the Management Board in the reporting year, thus making it impossible to establish a target figure. In summer 2022, the Executive Committee, the first tier of management

below the level of the Management Board, was adapted to meet the challenges of a rapidly growing organization and was expanded to encompass the role of Chief People and Culture Officer (CPCO). Prior to this decision, a target for the proportion of women on the Executive Committee of 25 % was established, which is currently being met.

Compliance

Adherence to all internal rules and legal regulations applicable to Pfeiffer Vacuum Technology AG and its subsidiaries by management and employees (compliance) has long been a goal of the Company as well as an inherent part of our Company culture. This is especially expressed in our Code of Conduct, which applies for all employees. The Management Board is fundamentally committed to these tenets in addition to the "zero tolerance" principle. Our Code of Conduct defines, among other things, integrity and lawful conduct as basic standards and is the basis for the daily work of all employees in our Company. The Code of Conduct, which was updated and supplemented in 2018, is also available outside the Company via the Company's website in all languages that are relevant to the Group's employees. In it, options for employees to report possible violations of the law in the Corporate Group are described. These options are also open to third parties outside of the Company. Compliance with legal and internal Company regulations is a comprehensive task for which each area of the Company is fundamentally responsible. Committed employees educate themselves further when required and take part in training in order to recognize and address current developments in their respective areas of responsibility. If compliance breaches are identified, they will be sanctioned accordingly in cooperation with the authorities.

Accounting and auditing

Pursuant to statutory provisions, the Consolidated Financial Statements of Pfeiffer Vacuum and the Quarterly Financial Reports are prepared in accordance with the current International Financial Reporting Standards (IFRS) as applicable in the European Union. The Annual Financial Statements of Pfeiffer Vacuum Technology AG as the parent corporation are prepared in accordance with the provisions of the German Commercial Code ("HGB"). The Annual Financial Statements and the Consolidated Financial Statements of Pfeiffer Vacuum Technology AG together with the combined Management Report were audited pursuant to the resolution of the Annual General Meeting on May 19, 2022 by PricewaterhouseCoopers GmbH, Wirtschaftsprüfungsgesellschaft, Frankfurt am Main, Germany. PricewaterhouseCoopers GmbH is also the auditor of the report on relations with affiliated companies. It was agreed with the auditors that the Chairman of the Audit Committee shall be immediately informed about any reasons for exclusion or prejudice arising during the audit, unless these are eliminated immediately. The auditor must also immediately report to the Supervisory Board all findings and events of importance that arise during the audit. In addition, the auditor must inform the Supervisory Board and note in the audit report if the auditor determines facts during the course of the audit that are not compatible with the declaration of compliance submitted by the Management Board and Supervisory Board pursuant to § 161 of the German Stock Corporation Act ("AktG").

Remuneration Report 2022

This year's remuneration report 2022 contains the presentation and explanation of the remuneration received by the current and former members of the Management Board of Pfeiffer Vacuum Technology AG (hereinafter: "**Company**") and the members of the Supervisory Board of the Company in the fiscal year 2022. The remuneration report takes into account the requirements of the German Commercial Code (HGB) as well as the German Stock Corporation Act (AktG). In particular, the remuneration report contains all disclosures required by § 162 of the German Stock Corporation Act (AktG) as amended by the Act Implementing the Second Shareholder Rights Directive ("**ARUG II**"). This includes explanations of the extent to which and how the remuneration system for the Management Board developed by the Supervisory Board and approved by the Annual General Meeting has been implemented. The same applies to the implementation of the remuneration system for the Supervisory Board, which was approved at the Annual General Meeting on May 12, 2021.

On March 24, 2022, the Supervisory Board resolved to change certain points of the remuneration system for Management Board members that had been adopted in 2021 and approved by the Annual General Meeting 2021 and to submit this amendment to the Annual General Meeting of the Company again for approval ("**Remuneration System for the Management Board 2022**"). The amendment to the remuneration system for the members of the Management Board relates to the proportional weighting of the financial and non-financial performance parameters in the

performance-related annual bonus ("**target bonus**") and in the long-term variable remuneration ("**LTI**"). In the case of the target bonus, the financial targets should account for not more than 50 % (previously between 70 % and 95 %) of the total targets to be pursued. Non-financial performance targets should account for at least 50 % of the total targets to be pursued (previously not more than 30 % and not less than 5%). In the case of the LTI, where the individually determined key performance indicators are concerned, the non-financial targets should also be weighted with at least 50 %, while other financial key performance indicators should be weighted at not more than 50 %. The intention of these changes is to give significantly greater weighting in the variable components of the Management Board remuneration to target parameters that are aimed at pursuing long-term and sustainable corporate development, particularly with regard to ESG (environmental, social and governance) targets.

The appropriately amended 2022 Management Board remuneration system was approved by the Company's Annual General Meeting on May 19, 2022 with a majority of 88.74 % of the votes present when the resolution was adopted. The 2022 remuneration system for the Management Board approved by the Annual General Meeting has been binding on the Supervisory Board since its submission to the Annual General Meeting and its corresponding approval. With regard to the target bonus, the target agreements with the members of the Management Board were entered into before the Annual General Meeting was held on May 19, 2022, and in view of this, the remuneration system 2021 was applicable in this context.

Also, the remuneration report 2021 was approved by the Company's Annual General Meeting on May 19, 2022 with a majority of 81.15 % of the attending share capital.

REMUNERATION FOR THE MANAGEMENT BOARD

Consideration of the Management Board remuneration system and approval by the shareholders

In addition to the statutory requirements of the German Stock Corporation Act and the German Commercial Code, the recommendations of the German Corporate Governance Code ("**GCGC**") were also taken into account, to the greatest possible extent, in the revision of the 2022 Management Board remuneration system. The Supervisory Board has merely decided against complying with the recommendations in G.10 sentence 1 and sentence 2 GCGC. The Supervisory Board remains skeptical of the recommendation in G.10 sentence 1 GCGC that the variable components of the Management Board's remuneration should be predominantly granted in shares or on a share-based basis, because this would expose the members of the Management Board to the risk of negative share price developments based on market fluctuations over which the Management Board has no direct influence. In addition, the recommendation in G.10 sentence 2 GCGC that long-term variable remuneration amounts should only be available after four years is not complied with. Instead, the remuneration system provides for long-term variable remuneration based on a three-year assessment period, with payment taking place in each case following the Annual General Meeting at the end of the three-year assessment period. The Supervisory Board is still of the opinion that this sufficiently ensures the desired long-term incentive, which would not be increased by a longer payment period.

The Supervisory Board reviews the appropriateness and customary nature of the remuneration at a horizontal level on the basis of a comparison with suitable other companies listed on the TecDAX or the SDAX, taking into account in particular the key figures of sales, number of employees and market capitalization for this market comparison. In this context, the Supervisory Board elected Heidelberger Druckmaschinen AG, Deutz AG, Jenoptik AG and Carl Zeiss Meditec AG as the relevant peer-group.

In accordance with the requirements of the remuneration system approved by the Annual General Meeting, when determining the remuneration of the Management Board the Supervisory Board is guided by the following principles:

- The members of the Management Board are to be encouraged to work towards achieving the Company's strategic goals. These goals focus on (i) ensuring sustainable and long-term corporate development and value enhancement, (ii) increasing market share and further growth, (iii) expanding the global presence, particularly in selected growth markets, (iv) pursuing a sales policy geared to customer satisfaction, and (v) pursuing sustainability targets, which include in particular increasing efficiency in the use of energy and raw materials. As part of the variable remuneration, non-financial performance criteria that are committed to aspects of corporate social responsibility and sustainability, are therefore defined in some cases in addition to financial performance criteria.
- Long-term variable remuneration, in particular, is an essential component of the remuneration structure and is intended to support sustainable and long-term corporate development and the business strategy.

- The remuneration shall take into account the size and economic situation of the enterprise.
- The remuneration should be commensurate with the individual's contribution to performance. Special performance should be rewarded with accordingly higher remuneration, while failure to achieve performance targets should result in a discernible reduction in the level of remuneration.
- Compared with enterprises of a similar size, remuneration should be attractive in order to attract and retain particularly qualified Management Board members over the long term.
- The remuneration should contribute to harmonizing the interests of the Management Board members with those of the shareholders and other stakeholders. In particular, the variable, performance-related remuneration components are therefore of major importance.

In line with these principles, and in line with the 2022 Management Board remuneration system in general, the Supervisory Board, supported by its Management Committee, set the specific target parameters for the members of the Management Board in the reporting year and made a determination on the individually agreed target achievement parameters in each case. In particular, the definition and possible adjustment of the variable, performance-related remuneration parameters were of decisive importance in order to ensure that the remuneration of the Management Board members makes an important contribution to promoting the business strategy and the long-term development of the Company.

Like the service contracts of the current Management Board members, the 2022 Management Board remuneration

system contains **malus and clawback provisions** which the Supervisory Board may utilize in individual cases. Accordingly, in the event of serious breaches of due diligence by a member of the Management Board during the year, the Supervisory Board may reduce or completely cancel the corresponding variable remuneration components of a member of the Management Board or demand full or partial reimbursement after payment has already been made. The Supervisory Board shall decide on this in each individual case at its due discretion and shall in particular take into account the severity of the violation and the amount of the resulting financial or reputational damage. In the reporting period, the Supervisory Board had no reason to make use of the malus and clawback provisions.

The Management Board service contracts of Dr. Britta Giesen and Wolfgang Ehrk additionally contain provisions – also in line with the applicable remuneration system for the Management Board – according to which, in the event of premature termination of their Management Board service contracts, they may not be granted, promised or made any payments exceeding the value of two years' remuneration or the value of the benefits payable for the remaining term of the Management Board service contracts (termed "**Severance Payment Cap**"). The Management Board service contract of Wolfgang Ehrk also stipulates that benefits paid in the event of premature termination of the Management Board service contract due to a change of control may not exceed 1.5 times the Severance Payment Cap. Benefits in this connection were not payable in the reporting year because no member of the Management Board resigned.

In line with the requirements of the 2022 Management Board remuneration system, the Management Board service contracts provide for non-competition clauses. According to these, Management Board members may not work for or hold an interest in a company that competes

with the Company or one of its affiliated companies or has significant business relations with the Company or one of its affiliated companies during the term of their employment contract. Furthermore, freelance or consulting work for such a company is also not permitted. The service contract with Dr. Britta Giesen has a term until December 31, 2023. The existing Management Board service contract with Wolfgang Ehrk ends on December 31, 2022. In summer 2021, the Supervisory Board and Wolfgang Ehrk agreed on a two-year extension of the Management Board service contract, which will take effect from January 1, 2023 and thus ends on December 31, 2024. The new Management Board service contract will have no effect on the 2022 reporting year, in particular no effect on the amount of remuneration granted or due.

For the reporting year, the Supervisory Board has verified that the maximum remuneration stipulated in the 2022 Management Board remuneration system based on the amounts received by the incumbent members of the Management Board, namely a gross amount of € 1.2 million for the Chairman of the Management Board and a gross amount of K€ 800 for ordinary members of the Management Board, was not exceeded in the reporting period. The fact that this was not exceeded for the current members of the Management Board is evidenced by the specific remuneration tables below. Dr. Britta Giesen received remuneration of K€ 697. Mr. Wolfgang Ehrk received K€ 377.

Unless otherwise stated below, the currently existing Management Board service contracts correspond to the adopted remuneration system.

Fixed remuneration and benefits in kind

Each member of the Management Board receives annual fixed remuneration, which is paid in twelve equal install-

ments at the end of each month. If the service contract begins or ends during the course of the fiscal year that is relevant for payment of the remuneration, the fixed remuneration for this fiscal year is paid pro rata temporis.

In addition, the members of the Management Board receive benefits in kind, in particular in the form of company cars provided, reimbursement of expenses and travel costs, and accident insurance. The Company has entered into directors' and officers' liability insurances (D&O insurance) for the benefit of the members of the Management Board, which provides for a statutory deductible of 10% of the amount of the loss (§ 93, Sub-Para. 2, sentence 3 AktG). In addition, the Company provides the Chairwoman of the Management Board, Dr. Britta Giesen, with a driver in certain cases. The benefits in kind are generally taxable by the Management Board members themselves. In deviation from this, a net remuneration agreement exists with regard to the provision of a driver for Dr. Britta Giesen, so that taxation in this case is borne by the Company.

Performance-related remuneration components

The performance-related remuneration components comprise an annual bonus ("target bonus") and a long-term variable remuneration component based on a three-year assessment period ("LTI").

Target bonus

The target bonus is designed to motivate members of the Management Board to achieve demanding and challenging financial, operational and strategic targets within a fiscal year. The targets reflect the corporate strategy and are aimed at increasing the enterprise value.

The target bonus for the members of the Management Board is K€ 220 for the Chairwoman of the Management Board, Dr. Britta Giesen, and K€ 140 for Wolfgang Ehrk as a further member of the Management Board, assuming full target achievement. It should be noted that the above-mentioned amounts are the maximum that can be earned as a target bonus and that the target bonus can also drop to a minimum value of zero. The target bonus is determined by the Supervisory Board, supported by the Management Committee, according to the achievement of the individual performance criteria agreed with the Management Board members after the end of the reporting period by determining the level of actual target achievement and setting it in relation to the assumed target achievement of 100%. The target bonus is paid out following the Annual General Meeting for the previous year.

The determination of the target bonus for the reporting year was based on the individual target agreements that are decided upon between the Supervisory Board and the individual members of the Management Board.

The composition of the remuneration granted and due in respect of the 2021 target bonus, i.e. the amounts received in this respect in 2022, is based on the individual target agreements displayed in the below table, the respective weightings and the resulting target achievement levels. All current and former Management Board members who received variable remuneration in this respect in the reporting year are listed below.

TARGET BONUS 2021

	Basic value	Weighting	Degree of target achievement	Target achievement
	in K €	in %	in %	in K €
Dr. Britta Giesen				
Development and revision of a market segment-specific Company strategy	110	50 %	100 %	110
Implementation of a revised compliance management system	66	30 %	100 %	66
Increase of ROCE	44	20 %	100 %	44
	220	100 %		220
Wolfgang Ehrk				
Fulfillment of product- and service related energy saving targets	35	25 %	93 %	33
Development of an improvement plan for Yreka site	42	30 %	38 %	16
Increasing output of turbo pumps to satisfy increased short-term demand in the areas semi-conductors, coating and display	28	20 %	100 %	28
Increasing efficiency in relation to maintenance services	35	25 %	100 %	35
	140	100 %		112
Total	360			332

Following the amendment to the Management Board remuneration system by the Annual General Meeting in 2022, the individually agreed targets for the year 2022 do not comply with the requirements of the Management Board remuneration system 2022. In this respect it should be noted that, at the time the individual targets were agreed upon, they complied fully with the then applicable requirements of the Management Board remuneration system 2021. In the future, the target bonus will be configured in accordance with the requirements of the Management Board remuneration system 2022.

The payment of the 2021 target bonus was made after the Annual General Meeting on May 19, 2022.

During the fiscal year, the Management Committee and subsequently also the full Supervisory Board also dealt with the assessment of the target bonus for 2022. The individual target agreements, the respective weightings and the resulting preliminary target achievement levels are shown in the following overview.

Given the successful business year in terms of sales and earnings, and the high level of new orders obtained by the Pfeiffer Vacuum Group, it was to be assumed that the target achievement levels attained by the members of the Management Board in respect of financial goals were fully met. In respect of the non-financial targets, the members of the Management Board fully met the targets concerned the fulfillment of a certain number of visits to customers by members of the Management Board and subordinate senior management. The situation was similar in respect of the target to implement ESG software and associated process flows. The measurement of targets in the area of employee satisfaction and communication was conducted on the basis of employee evaluations and resulted in a target achievement level of 97 %. Finally, the members of the Management Board fully achieved their individual targets in relation to successfully concluding pilot projects related to the introduction of SAP S/4 Hana (Dr. Giesen) and concluding planning work for a capacity expansion project up to submitting a building application (Mr. Ehrk), which meant that target achievement of 100 % was to be assumed here as well.

TARGET BONUS 2022

	Basic value	Weighting	Degree of target achievement ¹	Target achievement ¹
	in K €	in %	in %	in K €
Dr. Britta Giesen				
Achievement of a sales target	98	45 %	100 %	98
Achievement of a target for new orders	54	25 %	100 %	54
Achievement of a defined target in the areas of employee satisfaction and communication	17	7.5 %	97 %	16
Successful completion of two pilot projects in the area of SAP S/4	17	7.5 %	100 %	17
Visits to customers/suppliers	17	7.5 %	100 %	17
Implementation of ESG software and definition of structure/processes for collecting related data	17	7.5 %	100 %	17
	220	100 %		219
Wolfgang Ehrk				
Achievement of a sales target	62	45 %	100 %	62
Achievement of a target for new orders	34	25 %	100 %	34
Achievement of a defined target in the areas of employee satisfaction and communication	11	7.5 %	97 %	11
Planning a significant capacity expansion up to the building application stage	11	7.5 %	100 %	11
Visits to customers/suppliers	11	7.5 %	100 %	11
Implementation of ESG software and definition of structure/processes for collecting related data	11	7.5 %	100 %	11
	140	100 %		140
Total	360			359

¹ preliminary

The aforementioned amounts were recognized in the annual financial statements, on the basis of provisional target achievement levels, as a provision for the target bonus 2022. The final resolution on target achievement for the fiscal year 2022 will be adopted on presentation of the audited annual financial statements and the consolidated financial statements of Pfeiffer Vacuum Technology AG for 2022.

Long-term variable remuneration component/LTI

In addition, at the end of a three-year assessment period each Management Board member receives long-term variable remuneration (long-term incentive or “LTI”) depending on the achievement of specific targets determined at the beginning of each three-year assessment period. The actual amount of the LTI depends on the extent to which the Management Board member has been allocated an initial value of gross long-term variable remuneration measured in euros (“**allocated starting value**”) as of January 1 of each calendar year within the three-year assessment period.

Whether and to what extent the LTI is paid out at the end of a three-year assessment period is determined on the basis of the EBITDA development of the Company and the development of one or more key performance indicators defined for the assessment period in question, each development being weighted equally.

To take account of the sustainable development of the Company over the entire three-year assessment period, the sum of the initial values allocated is subjected to a validation process at the end of each assessment period, by which the average EBIT achieved over the year is set in relation to a target EBIT figure defined in advance by the Supervisory Board. If the average EBIT for the three-year assessment period differs from the target EBIT in that it is less than 75 %, no payment at all is made in relation to the LTI. If the average EBIT lies between 75 % and the amount of the target EBIT, a pro-rata adjustment is made. If the average EBIT in the three-year assessment period exceeds the target EBIT, this outperformance is rewarded with a pro-rata premium on the contractually agreed gross LTI amount, up to a maximum of 125 %. This validation applies to all current Management Board members for each three-year assessment period starting from 2021.

The contractually agreed target remuneration in relation to the LTI after three years is K€ 230 for Dr. Britta Giesen and K€ 160 for Wolfgang Ehrk as a further Management Board member, assuming full target achievement without taking into account an outperformance reward. It should be noted that a maximum of the above-mentioned amounts can be earned (without an outperformance reward) and that the target remuneration can also drop to a minimum value of zero.

Under the conditions described above, however, the long-term variable remuneration is not finally determined until the end of the three-year assessment period concerned. Hence, the long-term variable remuneration promised in 2020 cannot be paid out prior to the end of the 2022 fiscal year. Accordingly, the long-term remuneration promised in 2021 can be paid out for the first time only upon the end of the 2023 fiscal year. In deviation from this, in the event of termination of a Management Board service contract there are separate due date rules which state that the LTIs will also be paid out after the Annual General Meeting which resolves on the fiscal year corresponding to the last year of service of the member of the Management Board.

The composition of the remuneration granted and due in relation to the various LTIs, i.e. the amounts received in this respect in 2022, is based on the individual target agreements, the respective weightings and the resulting target achievement levels. In the reporting year 2022, no long-term variable remuneration was paid out to current or former Management Board members in accordance with the above-mentioned paragraphs.

During the fiscal year, the Management Committee and subsequently also the full Supervisory Board also dealt with the assessment of LTI target achievement for 2022. The individual target agreements, the respective weightings and the resulting preliminary target achievement levels are shown in the following overview.

DR. BRITTA GIESEN

		in 2022					
		Basic value	Weighting	Degree of target achievement ¹	Target achievement ¹	Out-performance ¹	Target achievement incl. out-performance ¹
		in K €	in %	in %	in K €		
LTI 2021–2023	Increasing EBITDA above previous year's amount	39	50 %	100 %	39		
	Increasing group sales per capita	38	50 %	100 %	38		
Total		77	100 %		77	125 %	96
LTI 2022–2024	Increasing EBITDA above previous year's amount	39	50 %	100 %	39		
	Reduction in CO ₂ emissions per million € Group sales of 5 % in 2022	19	25 %	100 %	19		
	Increasing sales in the service business	19	25 %	100 %	19		
Total		77	100 %		77	125 %	96
Total LTI		154			154		192

¹ preliminary

The successful business year for the Company in terms of sales and earnings, also led to full achievement of LTI targets by the members of the Management Board in respect of all current LTI three-year cycles. In view of this, the financial targets that relate to increasing EBITDA above the previous year's level were 100 % fulfilled by all members of the Management Board. The situation was similar in relation to the financial targets geared at increasing the Group's per capita sales (LTI Dr. Giesen 2021–2023) and increasing sales in the service business (LTI 2022–2024). The target aimed at increasing employee productivity by 3 % per year (LTI Mr. Ehrk 2021–2023) and reducing sales-related CO₂ emissions was also met in full by Management Board members. Only the targets for improving on-time delivery (LTI Mr. Ehrk 2020–2022) could not be achieved in view of the continuing robust development of demand. The preliminary target achievement level here was 0 % as shown in the preceding table. The positive development of earnings was also the reason for recognizing the preliminary outperformance bonuses that will apply for three-year periods starting from 2021.

The above-mentioned amounts were recognized in the annual financial statements as a provision for the remuneration of the LTIs for 2022. The final resolution on target achievement for fiscal 2022 will be adopted on presentation of the audited annual financial statements and the consolidated financial statements of Pfeiffer Vacuum Technology AG for the fiscal year 2022.

WOLFGANG EHRK

		in 2022					
		Basic value	Weighting	Degree of target achievement ¹	Target achievement ¹	Out-performance ¹	Target achievement incl. out-performance ¹
		in K €	in %	in %	in K €		
LTI 2020–2022	Increasing EBITDA above previous year's amount	27	50%	100%	27		
	Improvement of on-time delivery	26	50%	0%			
Total		53	100%		27	n/a	27
LTI 2021–2023	Increasing EBITDA above previous year's amount	27	50%	100%	27		
	Improvement of employee productivity	26	50%	100%	26		
Total		53	100%	100%	53	125%	66
LTI 2022–2024	Increasing EBITDA above previous year's amount	28	50%	100%	28		
	Reduction in CO ₂ emissions per million € Group sales of 5% in 2022	13	25%	100%	13		
	Increasing sales in the service business	13	25%	100%	13		
Total		54	100%	100%	54	125%	68
Total LTI		160			134		161

¹ preliminary**Total Management Board remuneration in the fiscal year 2022**

The following tables show the total benefits granted and due to each individual member of the Management Board in the fiscal year 2022, i.e. the total benefits actually received for fiscal year 2022 and the previous year individually for all current and former Management Board members who received a remuneration in the reporting year. The receipts and benefits are set in relation to the corresponding reference values for the 2021 fiscal year. In accordance with the provisions of § 162 of the German Stock Corporation Act (AktG), the amounts to be disclosed as remuneration granted and due (receipts) are those which became due in the reporting period and have already been received by the individual Management Board member or those for which due payment has not yet been made.

REMUNERATION GRANTED OR DUE

	Dr. Britta Giesen CEO		Wolfgang Ehrk COO		Dr. Matthias Wiemer Member of the Management Board		Manfred Bender ¹ CEO		Total	
	CEO from Jan. 1, 2021 Member of the Management Board from Oct. 1, 2020		from Jan. 1, 2020		from April 1, 2007 until June 30, 2019		from July 1, 2007 until Nov. 27, 2017			
	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
	in K €	in K €	in K €	in K €	in K €	in K €	in K €	in K €	in K €	in K €
Fixed remuneration	450	450	250	250	—	—	—	—	700	700
Benefits in kind	26	27	13	14	—	—	—	—	39	41
Total	476	477	263	264	—	—	—	—	739	741
Target bonus	220	55	112	140	—	—	—	—	332	195
LTI 2020–2022	—	58	—	—	—	—	—	—	—	58
Total variable remuneration	220	113	112	140	—	—	—	—	332	253
Other	—	—	—	—	—	—	2.500 ²	—	2.500	—
Total	696	590	375	404	—	—	2.500	—	3.571	994
Pensions	—	—	—	—	87	28	—	—	87	28
Total remuneration	696	590	375	404	87	28	2.500	—	3.658	1.022
Proportion of fixed remuneration in total remuneration	64.7 %	76.3 %	66.7 %	61.9 %	0.0 %	0.0 %	0.0 %	n/a	19.2 %	68.5 %
Proportion of variable remuneration in total remuneration	31.6 %	19.1 %	29.9 %	34.6 %	0.0 %	0.0 %	100.0 %	n/a	9.0 %	24.7 %
Proportion of other remuneration in total remuneration	3.7 %	4.6 %	3.5 %	3.5 %	100.0 %	100.0 %	0.0 %	n/a	71.8 %	6.8 %
	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	n/a	100.0 %	100.0 %

¹ Member of the Management Board from April 1, 2004

² Remuneration

In addition, the remuneration of the incumbent members of the Management Board recognized as an expense in the annual financial statements and the consolidated financial statements in the reporting year 2022 is shown below.

REMUNERATION RECORDED IN THE INCOME STATEMENTS

	Dr. Britta Giesen CEO				Wolfgang Ehrk COO				Total			
	CEO from Jan. 1, 2021 Member of the Management Board from Oct. 1, 2020				COO from Jan. 1, 2020							
	2022	2022		2021	2022	2022		2021	2022	2022		2021
		Minimum value	Maximum value			Minimum value	Maximum value			Minimum value	Maximum value	
	in K €			in K €	in K €			in K €	in K €			in K €
Fixed remuneration	450	450	450	450	250	250	250	250	700	700	700	700
Benefits in kind	26	26	26	27	13	13	13	14	39	39	39	41
Total	476	476	476	477	263	263	263	264	739	739	739	741
Target Bonus	219	—	220	220	140	—	140	112	359	—	359	332
LTI 2020–2022	—	—	—	—	27	—	53	40	27	—	53	40
LTI 2021–2023	96	—	96	77	66	—	66	51	162	—	162	128
LTI 2022–2024	96	—	96	—	68	—	68	—	164	—	164	—
Total variable remuneration	411	—	411	297	301	—	327	203	712	—	738	500
Other	—	—	—	—	—	—	—	—	—	—	—	—
Total	887	476	887	774	564	263	590	467	1,451	739	1,477	1,241
Pensions	50	50	50	50	—	—	—	—	50	50	50	50
Total remuneration	937	526	937	824	564	263	590	467	1,501	789	1,527	1,291

Information on the relative development of the remuneration of the Management Board, the remuneration of the other employees, and the development of the Company's earnings

The following multi-year overview shows the relative development of the remuneration of the members of the Management Board who were active in the respective fiscal year in relation to the remuneration of the previous fiscal year, as well as to the remuneration of the Company's senior management (in accordance with the remuneration system), the other employees of the Pfeiffer Vacuum Group and selected key earnings figures of the Pfeiffer Vacuum Group. The remuneration of the members of the Management Board on which the overview is based corresponds to the total amounts received respectively in the fiscal year concerned and the previous year.

Pension commitments for members of the Management Board

A pension commitment exists for Dr. Britta Giesen in the form of an annual fixed contribution to a provident fund in the amount of K€ 50. The benefits of the provident fund are financed by a life insurance policy pledged to Dr. Britta Giesen.

CHANGE IN MANAGEMENT BOARD REMUNERATION IN RELATION TO EARNINGS DEVELOPMENT AND EMPLOYEES

	2022 vs. 2021	2021 vs. 2020
	in %	in %
Management Board		
Dr. Britta Giesen (from October 1, 2020)	+ 18.0	+ 383.6 ¹
Wolfgang Ehrk	- 7.2	+ 32.5
Dr. Eric Taberlet (until December 31, 2020)	- 100.0	- 28.2
Nathalie Benedikt (until September 30, 2020)	- 100.0	+ 8.0
Dr. Ulrich von Hülsen (until June 30, 2019)	- 100.0	n/a
Dr. Matthias Wiemer (until June 30, 2019)	210.7	- 78.0
Manfred Bender (until November 27, 2017)	n/a	0.0
Key earnings indicators		
Group sales	+ 18.8	+ 24.7
Group EBIT	+ 28.2	+ 105.5
Net profit of Pfeiffer Vacuum Technology AG (Annual Financial Statements acc. to HGB)	- 10.5	+ 185.3
Employees		
Senior management	+ 36.2 ²	+ 34.3 ³
Other employees of Pfeiffer Vacuum Group ⁴	+ 5.3	+ 12.4

¹ On the basis of receipts linearly extrapolated, a more comparable increase would be 20.9%.

² The increase results primarily from filling new roles (CTO & CPCO) within the Group Executive Committee as well as from increased bonus payments to the members of the Group Executive Committee.

³ This increase results primarily from appointing a successor to the role of CFO within the Group Executive Committee.

⁴ On the basis of gross salaries of all Group employees (excluding Management Board and senior management).

n/a: A meaningful statement on this development is not possible in the cases mentioned since no remuneration was granted or due in the respective previous year.

Other benefits for former members of the Management Board

In June 2022, the Supervisory Board of the Company decided to approve a court settlement reached before the Higher Regional Court of Frankfurt am Main with the former Chairman of the Management Board, Mr. Manfred Bender, who vacated his position in November 2017. This settled a long-running legal dispute about the correctness of the extraordinary dismissal of Mr. Bender at that time. The court settlement provides that Mr. Bender is entitled to a severance payment of K€ 2,500 in settlement of all claims, which Mr. Manfred Bender received in July 2022 subject to the deductions required by law. In addition, the settlement contains a provision with regard to the pension commitments to be granted. This states that the pension for Mr. Manfred Bender is to be calculated as if the service contract had continued until December 31, 2021 without termination. Previously, the calculation was based on the assumption that the service contract was terminated in November 2017. Both benefits, which economically qualify as severance payments, are not subject to the 2022 remuneration system for members of the Board of Management and therefore do not represent an impermissible deviation from the maximum remuneration requirements.

There are final-salary pension commitments to other former members of the Board of Management. The IFRS net pension expenses attributable to this group of persons in the past fiscal year amount to K€ 840 (previous year: K€ 64).

Following a repayment of K€ 332 in 2021, a total repayment of K€ 377 was made by the Pfeiffer Vacuum Trust e. V. in 2022. The net pension obligation (IFRS) that exists for former members of the Management Board amounts to K€ 4,947 (previous year: K€ 8,007). Current pensions in 2022 amounted to K€ 468 (previous year: K€ 403). Of this amount, K€ 87 is attributable to Dr. Matthias Wiemer, member of the Management Board until June 30, 2019 (previous year: K€ 28).

REMUNERATION FOR THE SUPERVISORY BOARD

The members of the Supervisory Board receive only fixed remuneration, which is determined by the Annual General Meeting. On May 12, 2021, the Annual General Meeting approved the remuneration system presented for the Supervisory Board and, in accordance with this, determined new Supervisory Board remuneration that became effective from the beginning of the 2021 fiscal year.

Accordingly, each member of the Supervisory Board now receives annual base remuneration of K€ 45 (previously K€ 35). The Chair of the Supervisory Board will continue to receive base annual remuneration of K€ 105, while the Deputy Chair will continue to receive base remuneration of K€ 70. In addition to their base remuneration, the members of the Supervisory Board will receive, for the first time from fiscal 2021, the following annual remuneration for their work on Supervisory Board committees:

- K€ 5 each as an ordinary member of a committee, and
- K€ 15 as Chair of the Audit Committee, and K€ 10 each as Chair of another committee.

This additional remuneration does not accrue if no meetings of the committee concerned were held in that fiscal year.

If members of the Supervisory Board are newly elected during a fiscal year or withdraw for any other reason, the remuneration shall be paid on a pro rata temporis basis.

The composition of Supervisory Board remuneration recognized as an expense in 2022 and 2021 is as follows:

FIXED REMUNERATION OF THE SUPERVISORY BOARD MEMBERS

	2022			2021
	Base remuneration	Remuneration for committee work	Total remuneration	
	in K €	in K €	in K €	in K €
Ayla Busch, Chairwoman of the Supervisory Board	105	25	130	130
Götz Timmerbeil, Deputy Chairman of the Supervisory Board	70	35	105	105
Minja Lohrer (from May 12, 2021)	45	15	60	40
Filippo Th. Beck (until May 12, 2021)	—	—	—	25
Henrik Newerla	45	10	55	55
Matthias Mädler (until May 12, 2021)	—	—	—	21
Stefan Röser	45	0	45	45
Timo Birkenstock (from May 12, 2021)	45	5	50	33
Total	355	90	445	454

In addition, the remuneration granted and due in 2022 and 2021, i.e., the remuneration actually received was as follows:

SUPERVISORY BOARD REMUNERATION GRANTED AND DUE

	2022	2021
	in K €	in K €
Ayla Busch, Chairwoman of the Supervisory Board	130	105
Götz Timmerbeil, Deputy Chairman of the Supervisory Board	105	0
Minja Lohrer (from May 12, 2021)	40	0
Filippo Th. Beck (until May 12, 2021)	25	0
Henrik Newerla	55	0
Matthias Mädler (until May 12, 2021)	21	0
Stefan Röser	45	0
Timo Birkenstock (from May 12, 2021)	33	0
Total	454	105

In accordance with the resolution of the Annual General Meeting, the remuneration attributable to the year 2021 was paid to the members of the Supervisory Board in January 2022. Therefore, in principle, no remuneration was paid to the members of the Supervisory Board in 2021. In deviation from this, the remuneration of Supervisory Board Chairwoman Ayla Busch for 2020 was not paid until January 2021. The other members of the Supervisory Board received their remuneration for the year 2021 in 2022 as described above. The situation regarding remuneration for the year 2022 is similar in view of the fact that this was not paid out to the members of the Supervisory Board until the beginning of 2023.

CHANGE IN SUPERVISORY BOARD REMUNERATION IN RELATION TO EARNINGS DEVELOPMENT AND EMPLOYEES

	2022 vs. 2021	2021 vs. 2020
	in %	in %
Supervisory Board		
Ayla Busch, Chairwoman of the Supervisory Board	23.8	n/a
Götz Timmerbeil, Deputy Chairman of the Supervisory Board	n/a	-100.0
Minja Lohrer (from May 12, 2021)	n/a	n/a
Filippo Th. Beck (until May 12, 2021)	n/a	-100.0
Henrik Newerla	n/a	-100.0
Matthias Mädler (until May 12, 2021)	n/a	-100.0
Stefan Röser	n/a	-100.0
Timo Birkenstock (from May 12, 2021)	n/a	n/a
Key earnings indicators		
Group sales	+18.8	+24.7
Group EBIT	+28.2	+105.5
Net profit of Pfeiffer Vacuum Technology AG (Annual Financial Statements acc. to HGB)	-10.5	+185.3
Employees		
Senior management	+36.2 ¹	+34.3 ²
Other employees of Pfeiffer Vacuum Group ³	+5.3	+12.4

¹ The increase results primarily from filling new roles (CTO & CPCO) within the Group Executive Committee as well as from increased bonus payments to the members of the Group Executive Committee.

² This increase results primarily from appointing a successor to the role of CFO within the Group Executive Committee.

³ On the basis of gross salaries of all Group employees (excluding Management Board and senior management).

n/a: A meaningful statement on this development is not possible in the cases mentioned since no remuneration was granted or due in the respective previous year.

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Consolidated Statements of Income

Pfeiffer Vacuum Technology AG

CONSOLIDATED STATEMENTS OF INCOME

Pfeiffer Vacuum Technology AG

	Note	2022	2021
		in K€	in K€
Net sales	7, 32	916,711	771,373
Cost of sales	8, 15	-587,456	-490,965
Gross profit		329,255	280,408
Selling and marketing expenses	8	-95,070	-79,371
General and administrative expenses	8	-80,014	-61,448
Research and development expenses	8	-36,728	-34,230
Other operating income	9	19,637	11,395
Other operating expenses	9	-17,714	-23,661
Operating profit	32	119,366	93,093
Financial expenses	10, 33	-854	-843
Financial income	10, 33	340	251
Earnings before taxes	24, 32	118,852	92,501
Income taxes	24	-32,500	-30,514
Net income		86,352	61,987
Earnings per share (in €)			
Basic	35	8.75	6.28
Diluted	35	8.75	6.28

Consolidated Statements of Comprehensive Income Pfeiffer Vacuum Technology AG

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

Pfeiffer Vacuum Technology AG

	Note	2022	2021
		in K€	in K€
Net income		86,352	61,987
Other comprehensive income			
Amounts to be reclassified to income statement in future periods (if applicable)			
Currency changes	21	7,461	13,850
Results from cash flow hedges	21, 33	10	10
Related deferred income tax effects	21	-2	-3
		7,469	13,857
Amounts not to be reclassified to income statement in future periods			
Valuation of defined benefit plans	21, 25	25,918	10,401
Related deferred income tax effect	21	-7,501	-2,815
		18,417	7,586
Other comprehensive income net of tax		25,886	21,443
Total comprehensive income net of tax		112,238	83,430

Consolidated Balance Sheets

Pfeiffer Vacuum Technology AG

CONSOLIDATED BALANCE SHEETS – ASSETS

Pfeiffer Vacuum Technology AG

	Note	Dec. 31, 2022	Dec. 31, 2021
		in K€	in K€
Intangible assets	11	106,467	91,524
Property, plant and equipment	3, 12	226,664	175,952
Investment properties	13	328	352
Other financial assets	14	4,985	2,502
Other assets	14	640	791
Deferred tax assets	24	23,806	28,650
Total non-current assets		362,890	299,771
Inventories	15	248,993	162,178
Trade accounts receivable	16, 33	153,154	119,587
Contract assets	16	3,506	1,392
Income tax receivables		3,641	4,796
Prepaid expenses		10,356	4,689
Other financial assets	14	257	168
Other accounts receivable	17	13,095	15,924
Cash and cash equivalents	18, 33	67,840	99,371
Total current assets		500,842	408,105
Total assets	32	863,732	707,876

Consolidated Balance Sheets Pfeiffer Vacuum Technology AG

CONSOLIDATED BALANCE SHEETS – SHAREHOLDERS' EQUITY AND LIABILITIES

Pfeiffer Vacuum Technology AG

	Note	Dec. 31, 2022	Dec. 31, 2021
		in K€	in K€
Share capital	19	25,261	25,261
Additional paid-in capital	19	96,245	96,245
Retained earnings	20	416,099	370,007
Other equity components	21	-6,251	-32,137
Equity of Pfeiffer Vacuum Technology AG shareholders		531,354	459,376
Financial liabilities	3, 23, 33	7,858	13,876
Provisions for pensions	25	36,709	60,502
Deferred tax liabilities	24	4,064	4,437
Contract liabilities	27	1,497	1,321
Total non-current liabilities		50,128	80,136
Trade accounts payable	26, 33	86,158	58,046
Contract liabilities	27	28,508	13,343
Other accounts payable	28	33,112	27,742
Provisions	29	50,748	48,181
Income tax liabilities		15,549	16,773
Financial liabilities	3, 30, 33	68,175	4,279
Total current liabilities		282,250	168,364
Total shareholders' equity and liabilities		863,732	707,876

Consolidated Statements of Shareholders' Equity Pfeiffer Vacuum Technology AG

CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

Pfeiffer Vacuum Technology AG

	Note	Share Capital	Additional Paid-in Capital	Retained Earnings	Other Equity Components	Equity of Pfeiffer Vacuum Technology AG Shareholders
		in K€	in K€	in K€	in K€	in K€
Balance as at January 1, 2021		25,261	96,245	323,808	-53,580	391,734
Net income		—	—	61,987	—	61,987
Earnings after taxes recorded directly in equity	21, 33	—	—	—	21,443	21,443
Total comprehensive income		—	—	61,987	21,443	83,430
Dividend payment	20	—	—	-15,788	—	-15,788
Balance as at December 31, 2021		25,261	96,245	370,007	-32,137	459,376
Net income		—	—	86,352	—	86,352
Earnings after taxes recorded directly in equity	21, 33	—	—	—	25,886	25,886
Total comprehensive income		—	—	86,352	25,886	112,238
Dividend payment	20	—	—	-40,260	—	-40,260
Balance as at December 31, 2022		25,261	96,245	416,099	-6,251	531,354

Consolidated Statements of Cash Flows

Pfeiffer Vacuum Technology AG

CONSOLIDATED STATEMENTS OF CASH FLOWS – CASH FLOW FROM OPERATING ACTIVITIES

Pfeiffer Vacuum Technology AG

	Note	2022	2021
		in K€	in K€
Cash flow from operating activities:			
Earnings before taxes	32	118,852	92,501
Adjustment for financial income/financial expenses		514	592
Interest income received		208	282
Interest expenses paid		–759	–1,031
Income taxes paid		–30,071	–16,055
Depreciation/amortization	3, 11, 12, 13, 32	31,233	26,103
Impairment losses	11	—	16,407
Gains/losses from disposals of long-term assets		–129	775
Changes in allowances for doubtful accounts	16	950	730
Changes in inventory reserves	15	7,432	5,531
Other non-cash income and expenses	3	2,147	159
Effects of changes in assets and liabilities:			
Inventories		–91,358	–30,094
Receivables and other assets		–37,468	–30,667
Provisions, including pensions, and income tax liabilities		–2,520	1,643
Payables		47,933	24,702
Net cash provided by operating activities		46,964	91,578

Consolidated Statements of Cash Flows Pfeiffer Vacuum Technology AG

CONSOLIDATED STATEMENTS OF CASH FLOWS – CASH FLOW FROM INVESTING ACTIVITIES / CASH FLOW FROM FINANCING ACTIVITIES

Pfeiffer Vacuum Technology AG

	Note	2022	2021
		in K€	in K€
Cash flow from investing activities:			
Capital expenditures	11, 12, 13, 32	–80,834	–41,607
Payments for acquisitions		–3,430	—
Proceeds from disposals of fixed assets		1,313	1,748
Net cash used in investing activities		–82,951	–39,859
Cash flow from financing activities:			
Proceeds from increases of financial liabilities	33	58,597	—
Dividend payments	20	–40,260	–15,788
Redemptions of leasing liabilities	3, 33	–12,670	–5,505
Redemptions of financial liabilities	33	—	–55,062
Net cash provided by/used in financing activities		5,667	–76,355
Effects of foreign exchange rate changes on cash and cash equivalents		–1,211	1,124
Net changes in cash and cash equivalents		–31,531	–23,512
Cash and cash equivalents at beginning of period		99,371	122,883
Cash and cash equivalents at end of period	18	67,840	99,371

Notes to the Consolidated Financial Statements

REMARKS RELATING TO THE COMPANY AND ITS ACCOUNTING AND VALUATION METHODS

1. General remarks relating to the Company

The parent company within the Pfeiffer Vacuum Group (“the Company” or “Pfeiffer Vacuum”) is Pfeiffer Vacuum Technology AG, domiciled at Berliner Strasse 43, 35614 Asslar, Germany. Pfeiffer Vacuum Technology AG is a stock corporation organized under German law and recorded in the Register of Companies at the Local Court of Wetzlar under Number HRB 44. The Group is listed in the Prime Standard of Deutsche Börse Stock Exchange in Frankfurt am Main, Germany, where it is included in the SDAX index.

Pfeiffer Vacuum is one of the leading full-line vacuum technology manufacturers, offering custom solutions for a wide range of needs in connection with the generation, control, and measurement of vacuum. The products manufactured at the Group’s production facilities in Asslar, Dresden and Göttingen, Germany, as well as in Annecy, France and Asan, Republic of Korea, Indianapolis and Yreka in the United States, Cluj, Romania, as well as Ho-Chi-Minh-City, Vietnam, and Wuxi, China, include turbopumps, a range of backing pumps, such as rotary vane, Roots and dry pumps, complete pumping stations, as well as custom vacuum systems, leak detectors and components.

Pfeiffer Vacuum markets and distributes its products through its own global network of sales companies and independent marketing agents. Moreover, there are service support centers in all major industrial locations throughout the world. The Group’s primary markets are located in Europe, the United States, and Asia.

2. Basis for preparing Consolidated Financial Statements

Statement of compliance with IFRS

The Consolidated Financial Statements of Pfeiffer Vacuum Technology AG for the fiscal year from January 1 to December 31, 2022, have been prepared in accordance with International Financial Reporting Standards (IFRS) and the interpretations of the IFRS Interpretations Committee (IFRS IC) as applicable in the European Union (EU). This includes the International Accounting Standards (IAS), which continue to retain their validity, the interpretations of the Standing Interpretations Committee (SIC) and the interpretations of the International Financial Reporting Interpretations Committee (IFRIC). Those standards that have been approved by the EU but whose application is not yet mandatory have not been adopted at an earlier stage. The Notes to the Consolidated Financial Statements additionally include the information required by § 315e, Sub-Para. 1, of the German Commercial Code (“HGB”).

Basic valuation principles

The Consolidated Financial Statements were prepared on the basis of historical acquisition and production costs. This does not include derivative financial instruments and plan assets in connection with defined benefit plans, which are

measured at fair value. Pfeiffer Vacuum prepares its Consolidated Financial Statements in euros (€). Unless otherwise indicated, the presentation is in thousands of euros (K€). For mathematical reasons, the numbers presented in the Consolidated Financial Statements may include rounding differences.

Consolidated companies and principles of consolidation

All companies which Pfeiffer Vacuum directly or indirectly controls are consolidated. The Group is considered to control an entity if it is exposed to variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity.

Inclusion in the Consolidated Financial Statements is made on the basis of individual financial statements prepared in accordance with consistent accounting and valuation principles. The balance sheet date of the individual financial statements of the included companies is the same as the balance sheet date of the Consolidated Financial Statements.

There were no investments in joint ventures or joint operations as of December 31, 2022, or in previous years. Nor were there any investments in unconsolidated structured entities or investments to be included using the equity method.

Consolidation of investments is effected at the acquisition date in accordance with the acquisition method. In this connection, all assets (including, if applicable, intangible assets to be recognized additionally) and liabilities are first valued at their attributable fair values. The acquisition costs of the

equity investment, i.e. the total compensation transferred, valued in accordance with attributable fair values, are then offset against the acquired, newly valued shareholders' equity. Any resulting positive difference is recognized as goodwill and written down in future periods only in the event of impairment (impairment-only approach). If these amounts are less than the fair value of the net identifiable assets of the acquired business, the difference is recognized immediately in profit or loss as a discounted acquisition.

All intercompany receivables and liabilities, gains and losses, revenues and expenses are eliminated in connection with the consolidation process.

Foreign currency translation

The annual financial statements of subsidiaries domiciled outside the European Currency Union have been translated into euros (€) in accordance with IAS 21, "The Effects of Changes in Foreign Exchange Rates." Each company within the Corporate Group stipulates its own functional currency. The functional currency of the subsidiaries is the respective local currency. When translating financial statements presented in foreign functional currencies, year-end exchange rates are applied to assets and liabilities, while average annual exchange rates are applied to income statement accounts. The resulting translation adjustments are recorded in other equity components.

In the consolidated financial statements, foreign-currency transaction gains and losses from regular operations of consolidated companies are recorded as other operating income and expenses in the income statement.

3. Application of amended or new standards

The accounting and valuation principles used are essentially the same as those used the year before. In variance thereto, in 2022 the Group has applied the following new or amended IASB announcements that have been endorsed by the European Union (EU) for the first time, as their application was mandatory in fiscal 2022.

NEW ANNOUNCEMENTS

	Issued by IASB/IFRS IC	Applicability ¹
Amendments to IFRS 3, "Business combinations", IAS 16, "Property, plant and equipment", and IAS 37 "Provisions, contingent liabilities and contingent assets"	May 2020	January 1, 2022
Amendments to IFRS 3, "References to framework business", IAS 16, "Revenue before intended use", and IAS 37 "Onerous contracts"	May 2020	January 1, 2022
Various improvements to IFRS standards 2018–2020	May 2020	January 1, 2022
IFRS 17, "Insurance contracts"	June 2020	January 1, 2023

¹ Fiscal years beginning on or after the indicated date according to EU regulation

The following pronouncements adopted by the IASB and IFRS IC have not yet been adopted into EU law by the EU.

NEW ANNOUNCEMENTS

	Issued by IASB/IFRS IC	Applicability
Amendment to IAS 12 "Deferred Tax on Assets and Liabilities from a Single Transaction"	August 2022	January 1, 2023
Amendment to IAS 1 "Disclosures about Accounting Policies"	March 2022	January 1, 2023
Amendment to IAS 8 "Definition of Estimates"	March 2022	January 1, 2023
Amendments to IAS 1 "Classification of Liabilities as short-term or long-term"	October 2022	January 1, 2024
Amendments to IFRS 16 "Lease Liabilities from Sale and Lease Back Transactions"	November 2022	January 1, 2024
Amendments to IAS 1 "Long-Term Liabilities with constraints"	December 2022	January 1, 2024

Pfeiffer Vacuum intends apply the announcements mentioned above as of the effective date of mandatory application within the EU. The impact on the Consolidated Financial Statements resulting from the application of these not yet endorsed pronouncements are currently being analyzed.

4. Accounting and valuation methods

Income recognition

Revenue is recorded when control over the distinct goods or services is transferred to the customer, i.e. when the customer has the ability to control the use of the transferred goods or services and substantially obtains all of the benefits that remain from them. The prerequisite for this is that a contract with enforceable rights and obligations exists and that, among other things, it is probable that the consideration will be received, taking into account the creditworthiness of the customer. Most contracts with customers are fixed-price agreements. Sales revenues correspond to the transaction prices according to the contracts with customers

to which the Group is expected to be entitled. Basically, transaction prices do not include any financing components, as the expected period between the transfer of the goods or services to the customer and the payment date does not exceed twelve months. If a contract includes several distinct performance obligations, the transaction price is allocated to the performance obligations on the basis of the relative individual selling prices. If standalone selling prices are not directly observable, they are estimated based on the "expected-cost-plus-a-margin" approach. In the case of individual contracts with variable consideration that is included in the transaction price, the amount of the variable consideration is determined using the expected value method or the most probable amount. The variable consideration is generally measured according to the most probable amount. Revenues within the meaning of IFRS 15 are recognized at Pfeiffer Vacuum either at a specific point in time or over a specific period of time, whereby revenue recognition at a point in time predominates.

Revenues from the sale of vacuum products are recognized at the time when control is transferred to the customer, generally upon delivery of the goods. Revenues from contracts with customer-specific vacuum solutions are recognized over a certain period of time based on the stage of completion, based on the ratio of costs already incurred at the balance sheet date to the estimated total costs (input-based method) and recorded as contract assets. In connection with the sale of vacuum products, Pfeiffer Vacuum in some cases offers extended warranty terms ("service & process-type warranties") that go beyond the statutory warranty obligations ("assurance-type warranties"). Performance obligations in connection with extended warranty terms, for which the customer has already paid

a consideration, are recognized as contract liabilities and recognized over the period in which the services are rendered based on the time elapsed.

Sales from providing services are recognized at a point in time after execution. They include billed working hours of the service staff, spare parts and replacement parts. Interest income is recognized when the interest accrues. Rental income from investment property is recognized on a straight-line basis over the term of the lease.

Selling and marketing expenses

Selling and marketing expenses mainly include personnel costs, costs for marketing and advertising, costs for trade fair visits and other sales promotion expenses (e.g. catalogues, brochures, etc.).

Administrative and general expenses

The administrative and general expenses mainly include personnel costs, expenses for bad debt allowances, costs of the annual audit, IT costs, other general consulting costs and all expenses relating to the group as a whole.

Research and development expenses

Research and development costs are generally expensed as incurred. Development costs are capitalized, if the capitalization prerequisites in IAS 38, "Intangible Assets," are fully satisfied.

These capitalization requirements are:

- The completion of the project/asset is technically feasible so that the asset can be used or sold
- Management intends to complete the asset for use or sale
- There is the ability to use or sell the asset
- It can be demonstrated how the asset is expected to generate future economic benefits
- Adequate technical, financial and other resources are available to complete the development and use or sell the asset
- The expenditure on the asset during the development phase can be reliably determined

The directly attributable costs that are capitalized as part of the asset include employee costs and an appropriate share of related overheads.

Capitalized development costs are amortized as intangible assets and amortized from the point at which the asset is available for use.

Property, plant and equipment and intangible assets

Property, plant and equipment and intangible assets are stated at cost and depreciated/amortized on a straight-line basis over the customary useful lives of the assets. At the close of each fiscal year, the useful lives and depreciation/amortization methods, as well as the residual values in the case of property, plant and equipment, are reviewed and

adjusted where necessary. The following useful lives are assumed:

ESTIMATED USEFUL LIFE

Production halls, production and administration buildings and similar facilities	20–40 years
Machinery and equipment (including IT equipment)	3–15 years
Intangible assets ¹	3–5 years

¹ With the exception of the purchase price allocations based on goodwill and certain trademarks recognized in connection with purchase price allocations, there are no intangible assets with an indefinite useful life. Internally generated capitalized intangible assets have an expected useful life of 3–15 years.

Intangible assets recognized in connection with acquisitions, i.e. trademark rights or customer base, may have different, longer estimated useful lives of up to 20 years unless indeterminable. Determination is made on an individual basis.

Scheduled depreciation and amortization are allocated to the expense lines in the income statement on the basis of the input involved. Subsequent acquisition or production costs are only included in the carrying amount of the asset or recognized as a separate asset if it is probable that future economic benefits associated with the item of property, plant and equipment will flow to the Group and the cost of the item of property, plant and equipment can be reliably determined.

The carrying amount of a component accounted for as a separate asset is derecognized when it is replaced. Repair and maintenance costs are expensed as incurred.

The Group reviews assets for impairment whenever events or changes in circumstances suggest that the carrying amount of an asset may not be recoverable. Should impairment indicators exist, the Group performs the analyses required under IAS 36, "Impairment of Assets," with the carrying amount of the asset being compared to the recoverable amount. The recoverable amount of an asset or a cash-generating unit is the greater of the fair value less its selling costs and value in use. The resulting amount must be determined for each individual asset, unless an asset generates cash flows that are dependent upon those from other assets or other asset groups. Should the carrying amount of an asset be higher than its recoverable amount, the asset is viewed as being impaired and is written down to its recoverable amount. To determine the value in use of an asset, the anticipated future cash flows are discounted to their cash value, taking into consideration a before-tax discount rate that reflects current market expectations with respect to the interest rate effect and the specific risks of the asset in question. An appropriate valuation model is employed to determine the fair value less selling costs. This model is based on valuation multiples and other available indicators for the fair value. Any required reversals of impairment losses are recorded in future-period income statements up to the amount of the impairment loss reversal limit. This limit is determined by the amount that would have resulted at the close of the respective fiscal year given scheduled depreciation of the asset.

At least once a year, the Group reviews goodwill for possible impairments. For the purpose of the impairment test, goodwill acquired within the context of a corporate merger is allocated at the acquisition date to those cash generating units of the Corporate Group that can be expected to be able to benefit from the corporate merger. This review is always made whenever events or changes in circumstances suggest that the carrying amount may not be recoverable. In this case, the above described process for impairments under IAS 36, "Impairment of Assets," is applied. Any resulting impairment loss is recorded in the income statement. A reversal of goodwill impairment losses in future periods is not permissible.

A fixed or intangible asset is derecognized either at the time of disposal or at such time as no economic benefit can any longer be expected from the further utilization or sale of the asset. Gains and losses from disposals of assets are determined and recorded in the income statement on the basis of the difference between selling costs and carrying amount, less any directly attributable selling costs, where applicable.

Investment properties

Real estate properties are allocated to the portfolio of investment properties if they are held for the purpose of generating rental income. They are stated at cost and depreciated on a straight-line basis over their estimated useful lives (cost model). Assessment of their residual values, useful lives and depreciation methods, as well as any impairment losses, is performed analogously to the procedure described in connection with property, plant and

equipment. Investment properties are derecognized upon disposal or when they are no longer being permanently used and they are no longer expected to produce any further future economic benefit.

Financial instruments

A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or an equity instrument of another entity. Accounting for financial instruments in the case of usual and customary purchase or sale is performed on the settlement date, i.e. the day on which the asset is delivered. According to IFRS 9, "Financial Instruments" financial instruments are allocated to the following categories upon initial recognition:

- "Fair value through profit or loss"
- "Fair value through other comprehensive income"
- "Amortized cost"

At the time of recognition accounts receivable, in particular trade accounts receivable and contract assets, are recorded with the amount of unconditional consideration and subsequently measured at amortized cost. Receivables generally do not contain any significant financing components. If they contain significant financing components, they must instead be recognized at fair value. A contract asset is the right to receive consideration in exchange for goods or services that have been transferred to the customer. Allowances on contract assets and receivables for credit risks are made on the basis of the expected loss model. Pfeiffer Vacuum applies a simplified approach to measure expected losses pursuant to IFRS 9, under which a provision for

possible loan losses must be recognized in the amount of the expected losses over the remaining term of the asset (excluding potential VAT amounts). A reversal of an impairment loss is recognized in profit or loss up to a maximum of the amortized cost. Receivables are derecognized as soon as they become uncollectible.

The Group uses derivatives only to manage foreign currency exchange rate risks. Instead of applying the hedge accounting provisions of IFRS 9, Pfeiffer Vacuum is voluntarily exercising its option and continues to apply the corresponding provisions of IAS 39. Approximately 63 % of Group sales are invoiced in foreign currencies (non-euro, predominantly US dollars as well as KRW) (2021: 58 %). The Group enters into forward exchange and option transactions to hedge its future sales invoiced in foreign currencies against exchange rate fluctuations. Derivative financial instruments are acquired exclusively for this purpose. Pfeiffer Vacuum does not engage in speculative hedging transactions. Derivative financial instruments employed for hedging purposes are recorded at their fair values both at the time they are first recorded as well as in subsequent periods. Derivative financial instruments are recorded as assets if their fair value is positive and as liabilities if their fair value is negative. Changes in the fair value of these derivatives are recorded in equity without any impact on the income statement if the hedging is classified as a cash flow hedge according to IAS 39 and is effective. The derivative is reclassified into other operating income and expenses as foreign exchange gains/losses at the time of realization of the underlying transaction that has been hedged. If derivatives were pur-

chased for hedging purposes but do not formally qualify for hedging under IAS 39, they are recorded at fair value through profit and loss. The fair values are determined on the basis of reference rates, taking into account forward premiums and discounts as of the balance sheet date. Please refer to Note 33 for further information on financial instruments.

Trade accounts payable are financial liabilities and are measured at fair value at the time of first recognition and subsequently at amortized cost (using the effective interest method).

Bank loans are also categorized as financial liabilities and are measured at fair value upon first recognition and in future periods at amortized costs using the effective interest method. This takes into consideration all components of the effective interest rate. Interest income and expenses resulting from the application of the effective interest rate method are shown under financial results.

Cash and cash equivalents

Cash and cash equivalents consist of cash on hand, bank balances, and all highly liquid bank investments having original maturities of three months or less. Cash and cash equivalents are defined accordingly in the consolidated cash flow statements. Cash and cash equivalents are also subject to the expected loss model according to IFRS 9.

Inventories

Inventories are valued at the lower of net realizable value and acquisition or manufacturing costs. Net realizable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated selling costs. Acquisition or manufacturing costs comprise all costs for acquisition or manufacturing as well as all costs incurred for bringing the inventories to their current place and to the current status. With regard to work in process and finished products, the manufacturing costs include besides directly attributable material and production costs also production related indirect costs. Removals from inventory are determined on a weighted average cost basis. Interests on borrowed capital are not considered as part of acquisition or manufacturing costs for inventories. Valuation adjustments on excess inventories are determined on the basis of internal procedures in accordance with the ratio between inventory turnover and future sales or usage. Excess inventories are stocks of individual inventory items that exceed anticipated sales or usage. Management utilizes its judgement in forecasting sales or usage.

Other accounts receivable and other assets

Other accounts receivable and other assets are recorded at amortized cost and less allowances, where applicable. Non-current receivables and assets are valued using the effective interest method.

Provisions

Provisions are formed when the Corporate Group presently has a legal or constructive outside obligation as a result of a past event and it is likely that settlement of the obligation will lead to an outflow of economic resources and the amount of the obligation can be reliably determined. The valuation is made on the basis of the best estimate of the extent of the obligation.

Pensions

Valuation of pension obligations under defined benefit plans is based upon the projected unit credit method in accordance with IAS 19 "Employee Benefits". Actuarial gains and losses from changes in the amount of either the defined benefit obligation (under pension plans), the actuarial present value of earned entitlements (under other plans) as well as those variances between actual returns and returns calculated with the discount rate or from changes in other actuarial assumptions are recorded directly in the other equity components. The pension provision thus shows the net benefit obligation resulting from the difference of the defined benefit obligation and the plan assets measured at fair value. Additionally, the return on plan assets is considered with the discount rate. The accounting for obligations under defined benefit plans is based upon actuarial reports calculated as per the close of the fiscal year. The existing pension plans are detailed in Note 25.

Expenses for defined contribution plans are recorded as expense in the income statement when the premium obligation is incurred. Provisions are formed only if the payment is not made in the year the premium was incurred.

Contract liabilities and other accounts payable

Contract liabilities and other liabilities are measured at fair value upon first time recognition. Subsequent measurement is carried out at amortized cost, using the effective interest method. A contract liability is an obligation to transfer goods or services to a customer for which the customer has paid consideration.

Income taxes

Current income taxes are stated as a liability to the extent to which they have not yet been paid. General tax risks within the Group are additionally considered. Should the amounts already paid for income taxes exceed the amount owed, the difference is stated as an asset. Calculation of the amount is based upon the tax rates and tax legislation applicable at the close of the fiscal year.

Under IAS 12, "Income Taxes," deferred tax assets and liabilities are formed in the consolidated and taxation financial statements for temporary differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases or for unused tax loss carry-forwards (liability method). In assessing the realizability of deferred tax assets, management considers

whether it is more likely than not that some or all of the deferred tax assets will not be realized. The realizability of deferred tax assets depends on whether, at the time the temporary differences reverse, there are sufficient taxable temporary differences in relation to the same tax authority and taxable entity or it is probable that taxable income will be generated from which the temporary differences can be deducted before the loss carryforwards expire. In making this assessment, management considers the scheduled reversal of temporary differences, projected future taxable income, and tax planning strategies. Valuation of deferred tax assets and liabilities is performed using the local tax rates expected to be in effect at the time of realization of the asset or satisfaction of the liability, with the tax rates applicable at the close of the fiscal year being employed. The effects of changes in tax laws are recognized in the results of operations in the period in which the new tax rates go into effect. Deferred taxes that relate to line items recorded directly under shareholders' equity are recorded directly under equity and not in the income statement. An adjustment is recorded for deferred tax assets if it is unlikely that future tax advantages will be realized. Deferred tax assets and liabilities are offset if the entitlements and obligations relate to one and the same tax authority.

Leases

In accordance with IFRS 16 "Leases," a right-of-use asset and a lease liability have to be recognized in the balance sheet for all leases. The lease liability is measured at the present value of the remaining lease payments discounted using the lessee's incremental borrowing rate, while the

right-of-use asset is generally measured at the amount of the lease liability plus initial direct costs. As the internal interest rate is often difficult to determine, the incremental borrowing rate may be used alternatively. During the lease term, the right-of-use asset is depreciated and the lease liability is recognized using the effective interest method and taking into account lease payments. The right-of-use assets recognized in the balance sheet are shown in the balance sheet items in which the assets underlying the leasing agreement would have been shown if they had been owned by the Group. As of the balance sheet date the right-of-use assets are therefore reported as property, plant and equipment within the non-current assets. Lease liabilities are reported under financial liabilities. Simplifications for short-term lease contracts or for lease contracts for which the value of the underlying asset is immaterial have not been applied.

Government grants

Government grants which compensate the Group for expenses (expense subsidies) are recorded in the income statement in other operating income in the same period the underlying expenses are incurred. To the extent government grants do not relate to benefits for short-time work and for the related refund of social security contribution government grants the Group received due to the Covid-19 pandemic are also recorded under other operating income applying the accrual principle. Benefits for short-time work are recorded with personnel expenses.

Determination of fair value IFRS 13

“Fair Value Measurement” includes uniform regulations for fair value measurement and rules the determination of fair value in cases where other standards allow or require measurement at fair value. Pfeiffer Vacuum Group did not apply any fair value measurement options.

Use of estimates

The process of preparing financial statements requires the use of estimates and assumptions on the part of the management. These estimates are based upon management’s historical experience, are verified regularly, and adjusted if necessary. Certain of the Group’s accounting policies are considered critical, as they can have a major impact on the profitability, financial position, and liquidity of the Corporate Group and necessitate significant or complex judgement on the part of management. These estimates and assumptions could differ from the actual results. As of December 31, 2022, based on current estimate, no judgement uncertainties existed that could lead to the significant risk of the need for a material adjustment of book values in the 2023 fiscal year.

Material forward-looking estimates and assumptions exist, among others, in estimating the cash flows in connection with the good-will impairment test, with regard to the formation of pension and warranty provisions, in forecasting the useful lives of fixed assets, in determining the fair values of assets identified and liabilities assumed in connection with acquisitions, in the determination of individual selling prices

within the meaning of IFRS 15 that are not directly observable, in determining the lease term or the amount of leasing rates or in connection with deferred tax assets. The major assumptions are detailed in the Notes relating to the individual line items of the balance sheet or in the accounting principles. With regard to the assumptions the goodwill impairment test is based on, please refer to Note 11. The parameters underlying the pension accounting are detailed in Note 25. Information concerning the estimated useful life of tangible and intangible assets is included in Note 4, section “Property, plant and equipment, and intangible assets”. With regard to sales revenues please refer to Note 4, section “Income recognition” and with regard to the composition of sales revenues to Note 7. Further details for provisions are described in Note 29 and for deferred tax assets in Note 24.

NOTES TO THE SCOPE OF CONSOLIDATION

5. Composition of consolidated companies

In addition to Pfeiffer Vacuum Technology AG, five German and 26 foreign subsidiaries are fully consolidated in the Group's Consolidated Financial Statements as at December 31, 2022.

THE PFEIFFER VACUUM CORPORATE GROUP AS OF DEC. 31, 2022

	Headquarters	Equity Share (in %)
Pfeiffer Vacuum Technology AG	Germany	
Pfeiffer Vacuum GmbH	Germany	100.0
Pfeiffer Vacuum Austria GmbH	Austria	100.0
Pfeiffer Vacuum (Schweiz) AG	Switzerland	100.0
Pfeiffer Vacuum (Shanghai) Co., Ltd.	China	100.0
Pfeiffer Vacuum (India) Private Ltd.	India	270 ¹
Pfeiffer Vacuum Ltd.	United Kingdom	100.0
Pfeiffer Vacuum Scandinavia AB	Sweden	100.0
Pfeiffer Vacuum Singapore Pte. Ltd.	Singapore	100.0
Pfeiffer Vacuum Taiwan Corporation Ltd.	Taiwan	100.0
Pfeiffer Vacuum Benelux B. V.	Netherlands	100.0
Pfeiffer Vacuum (Xi'an) Co., Ltd.	China	100.0
Pfeiffer Vacuum Malaysia SDN. BHD.	Malaysia	100.0
Pfeiffer Vacuum (Wuxi) Co., Ltd.	China	100.0
Pfeiffer Vacuum Shared Services GmbH	Germany	100.0
Goldfish IT GmbH	Germany	100.0
Pfeiffer Vacuum Inc.	USA	100.0
Pfeiffer Vacuum New Hampshire Realty Holdings, LLC.	USA	100.0
Pfeiffer Vacuum Indiana Realty Holdings, LLC.	USA	100.0
Nor-Cal Products Holdings, Inc.	USA	100.0
Nor-Cal Products, Inc.	USA	100.0
Nor-Cal Products Viet Nam Co., Ltd.	Vietnam	100.0
Nor-Cal Products Korea Co., Ltd.	Republic of Korea	100.0
Nor-Cal Products Asia Pacific Pte. Ltd.	Singapore	100.0
Pfeiffer Vacuum California Realty Holdings, LLC.	USA	100.0
Pfeiffer Vacuum Holding B. V.	Netherlands	100.0
Pfeiffer Vacuum Italia S. p. A.	Italy	100.0
Pfeiffer Vacuum (India) Private Ltd.	India	73.0 ¹
Pfeiffer Vacuum Korea, Ltd.	Republic of Korea	11.9 ²
Pfeiffer Vacuum Components & Solutions GmbH	Germany	100.0
Pfeiffer Vacuum SAS	France	100.0
Pfeiffer Vacuum Romania S. r. l.	Romania	100.0
Pfeiffer Vacuum Korea, Ltd.	Republic of Korea	88.1 ²
Dreebit GmbH	Germany	100.0

¹ and ² Total Group holdings: 100.0%

6. Changes in consolidated companies/ acquisitions

Pfeiffer Vacuum Korea, Ltd., South Korea, was merged into Pfeiffer Vacuum Semi Korea, Ltd., South Korea, effective December 31, 2021. Since March 2022 it has been operating under the name Pfeiffer Vacuum Korea, Ltd.

Acquisition of Goldfish IT GmbH

Effective November 1, 2022, Pfeiffer Vacuum Technology AG indirectly acquired all shares in Goldfish IT GmbH, Maulburg, Germany, via a subsidiary.

The acquisition is related to the strategic partnership between Pfeiffer Vacuum and the Busch Group and serves to improve structures and processes in the IT area.

The initial consolidation of Goldfish IT GmbH was based on the IFRS book values, the assets and liabilities as of November 1, 2022 (date of acquisition):

IFRS CARRYING AMOUNT OF ASSETS AND LIABILITIES ASSUMED

	November 1, 2022
	in K€
Assets	
Property, plant and equipment	197
Trade accounts receivable	397
Cash and cash equivalents	39
Other assets	2
Total assets	635
Liabilities	
Provisions	-82
Other liabilities	-503
Total liabilities	-585
Identifiable net assets (book value)	50
Goodwill	3,419
Total consideration (purchase price)	3,469

The purchase price allocation for the acquisition of Goldfish IT GmbH was carried out in accordance with the applicable IFRS. The carrying amounts used corresponded to the fair value of the assets. The purchase price of the shares consisted solely of a cash component. Taking into account the acquired cash and cash equivalents of K€ 39, the net cash outflow from the company acquisition was K€ 3,430.

The goodwill of € 3.4 million relates entirely to the workforce and will probably not be tax-deductible.

The sales and earnings contribution (after taxes) of Goldfish IT GmbH since November 1, 2022 was € 0.4 million and € -0.1 million respectively. If the acquisition had taken place at the beginning of 2022, consolidated sales would have been € 917.1 million with an identical consolidated net result.

Besides, there have been no further changes in consolidated companies in 2022 or 2021.

NOTES TO THE CONSOLIDATED STATEMENTS OF INCOME

7. Net sales

Pfeiffer Vacuum derives revenue from contracts with customers from the transfer of goods and services at a point in time and over time. The revenue, which is recognized at a point in time, is the major part of Pfeiffer Vacuum's net sales.

Presented opposite are the group sales with customers by regions and markets.

There was no revenue with material customers (> 10 % of total revenue) in 2022. In prior year revenues with material customers (> 10 % of total revenue) totaled € 103.3 million and were realized in the segments Republic of Korea, USA and rest of Asia.

For further analysis of revenues we refer to the segment reporting in Note 32.

The order backlog as of December 31, 2022 was € 502.7 million (2021: € 316.2 million) and represents the extent of performance obligations which have not been fulfilled yet or are partially unfulfilled.

REVENUE BY REGIONS

	Asia	Europe	The Americas	Rest of world	Total
	in K€	in K€	in K€	in K€	in K€
2022	358,242	305,933	252,323	213	916,711
2021	322,468	253,389	195,414	102	771,373

REVENUE BY MARKETS

	Analytics, Industry and Research & Development	Semi- conductors and Coating	Total
	in K€	in K€	in K€
2022	445,601	471,110	916,711
2021	378,200	393,173	771,373

8. Functional expenses

Cost of Sales

Cost of sales predominantly include the manufacturing costs for the products sold as well as the costs for the services rendered. This includes all directly attributable material and production costs as well as indirect production costs (including depreciation on production buildings and machines). In addition, freight costs, expenses for inventory valuation, and warranty expenses are included here.

Selling and marketing expenses

Selling and marketing expenses predominantly include wages and salaries, marketing and advertising costs, costs relating to trade shows and conventions, as well as other merchandising costs (such as catalogs, brochures, etc.).

General and administrative expenses

General and administrative expenses predominantly include wages and salaries, expenses related to allowances for doubtful accounts, IT-expenses, audit and other general consulting fees, as well as all costs relating to the Group as a whole.

Research and development expenses

Research and development expenses include personnel and material expenses allocated to this functional section. Amortization expenses for developed technology recognized in connection with the purchase price allocations totaled € 0.4 million in 2022 (2021: € 0.7 million) and are also included in research and development expenses.

For further analysis of operating expenses, please refer to Note 15 (relating to cost of sales), to Note 24 (relating to income tax expenses), to Note 25 (relating to the development of pension expenses), to Note 38 (relating to development of personnel expenses) and to Note 11 and 12 (relating to development of depreciation and amortization).

9. Other operating income and other operating expenses

Other operating income and expenses are comprised as follows:

COMPOSITION OF OTHER OPERATING INCOME AND EXPENSES

	2022	2021
	in K€	in K€
Foreign exchange gains	13,235	6,817
Expense allowance	5,455	4,110
Gains from disposals of assets	244	82
Government grants (Covid 19)	—	87
Other	703	299
Other operating income	19,637	11,395
Foreign exchange losses	-14,069	-6,004
Impairment losses	—	-16,407
Others	-3,645	-1,250
Other operating expenses	-17,714	-23,661

In respect to government grants reported under other operating income, there are no unfulfilled conditions or other contingencies existing.

Further details regarding impairment losses please refer to Note 11.

In 2022, no government grants in connection with the Covid-19 situation (e.g. short-time work, reimbursement of social security contributions, grants) were used.

10. Financial expenses and financial income

Financial expenses and financial income as recorded in 2022 and the previous year comprises as follows:

COMPOSITION OF FINANCIAL INCOME AND FINANCIAL EXPENSES

	2022	2021
	in K€	in K€
Interest expenses and similar	-854	-843
Total financial expenses	-854	-843
Interest income	340	251
Total financial income	340	251
Financial result	-514	-592

Interest income and interest expenses only related to financial assets or financial liabilities recorded at amortized costs.

NOTES TO THE CONSOLIDATED BALANCE SHEETS

11. Intangible assets

The intangible assets item mainly includes software purchased within the consolidated Group and intangible assets

recognized in connection with acquisitions (amongst others developed technology, customer base, trademark right) as well as goodwill. The development of intangible assets in 2022 and 2021 was as follows:

DEVELOPMENT OF INTANGIBLE ASSETS IN 2022

	Software	Software before implementation/ internally generated intangibles assets	Goodwill	Customer base	Other intangible assets	Total
	in K€	in K€	in K€	in K€	in K€	in K€
Acquisition cost						
Balance as at January 1, 2022	13,834	14,234	80,973	41,348	32,265	182,654
Currency changes	1	1	1,902	1,494	410	3,808
Additions	2,604	10,315	3,419	—	70	16,408
Disposals	-382	-9	—	—	-7	-398
Balance as at December 31, 2022	16,057	24,541	86,294	42,842	32,738	202,472
Amortization						
Balance as at January 1, 2022	10,077	—	22,599	28,184	30,270	91,130
Currency changes	-1	—	1	654	207	861
Additions	1,618	—	—	2,101	684	4,403
Impairment losses	—	—	—	—	—	—
Disposals	-382	—	—	—	-7	-389
Balance as at December 31, 2022	11,312	—	22,600	30,939	31,154	96,005
Net book value as at December 31, 2022	4,745	24,541	63,694	11,903	1,584	106,467
Thereof with an unlimited useful life	—	—	63,694	—	129	63,823

As of December 31, 2022, development projects of Pfeiffer Vacuum SAS in the amount of € 6.4 million (previous year: € 1.9 million) were capitalized as internally generated intangible assets before start of operations. A total of € 8.3 million was capitalized as internally generated intangible assets before start of operations.

For the purpose of testing the recoverability, goodwill and trademark rights with indefinite useful life recognized in connection with acquisitions, were tested on December 31, 2022 by means of an impairment test.

The determination of the cash-generating units to be used as a basis for the impairment test is carried out in accordance with the segment definition according to IFRS 8 and is therefore company-related. The recoverable amounts (values in use) were determined as of December 31, 2022 for the cash-generating units to which goodwill was allocated. The basis for determining the value in use was cash flow forecasts for the years 2023 to 2025. These result from detailed sales and cost plans approved by management for each year of this detailed planning period and the operating results derived from them. Both, the respective current results and the expected market, economic and competitive developments are taken into account and tested against past experience. In addition, assumptions are made regarding the development of working capital and future investments for the cash flow forecasts. The cash flows occurring after the detailed planning period were extrapolated using individual growth rates. Cash flows are discounted using the weighted average cost of capital (WACC), taking country-specific risks into account.

The recoverable amount (value in use) as of December 31, 2022 was determined on the basis of cash-generating units for the total goodwill recognized as part of various acquisitions (€ 63.7 million; previous year: € 58.4 million). The allocation of this goodwill to the cash-generating units and the main assumptions on which the determination of the recoverable amount was based are shown in the table below.

DEVELOPMENT OF INTANGIBLE ASSETS IN 2021

	Software	Software before implementation/ internally generated intangibles assets	Goodwill	Customer base	Other intangible assets	Total
	in K€	in K€	in K€	in K€	in K€	in K€
Acquisition cost						
Balance as at January 1, 2021	11,658	9,452	78,369	39,725	31,913	171,117
Currency changes	27	—	2,604	1,623	405	4,659
Additions	2,239	4,782	—	—	46	7,067
Disposals	-90	—	—	—	-99	-189
Balance as at December 31, 2021	13,834	14,234	80,973	41,348	32,265	182,654
Amortization						
Balance as at January 1, 2021	8,694	—	6,193	25,997	29,497	70,381
Currency changes	19	—	-1	551	255	824
Additions	1,432	—	—	1,636	601	3,668
Impairment losses	—	—	16,407	—	—	16,407
Disposals	-68	—	—	—	-83	-151
Balance as at December 31, 2021	10,077	—	22,599	28,184	30,270	91,129
Net book value as at December 31, 2021	3,757	14,234	58,374	13,164	1,995	91,524
Thereof with an unlimited useful life	—	—	58,374	—	244	58,618

ALLOCATION OF GOODWILL AND MAJOR VALUATION ASSUMPTIONS

	Dec. 31, 2022			Dec. 31, 2021		
	Goodwill	Pre-tax discount rate	Long-term growth rate	Goodwill	Pre-tax discount rate	Long-term growth rate
	in € millions	in %	in %	in € millions	in %	in %
Germany	16.7	14.6	1.5	13.1	11.9	1.5
Thereof Pfeiffer Vacuum Components & Solutions GmbH	8.2	14.6	1.5	8.2	11.9	1.5
France (Pfeiffer Vacuum SAS)	23.0	14.6	1.5	23.0	12.6	1.5
Rest of Europe	0.5	13.7–16.1	1.5	0.4	11.5–14.0	1.5
USA	17.1	12.9	1.5	15.4	11.4	1.5
Thereof Nor-Cal Products Inc.	5.4	12.9	1.5	4.2	11.4	1.5
Thereof Pfeiffer Vacuum Inc.	11.7	12.9	1.5	11.2	11.4	1.5
Republic of Korea (Pfeiffer Vacuum Korea, Ltd.)	4.1	15.3	1.5	4.2	12.1	1.5
Rest of Asia	2.3	12.3–13.9	1.5	2.3	10.1–16.7	1.5
Total	63.7			58.4		

The valuation of the aforementioned goodwill did not result in an impairment amount as of December 31, 2022.

The valuation as of December 31, 2021 resulted in an impairment totaling K€ 16,407, which was attributable to the Nor-Cal Products Inc. cash-generating unit. The reason for the devaluation was in particular a lower expected sustainable EBIT margin, which reflects past experience and the future expected market development, but also the orientation

of the unit. As a result, the book value before depreciation exceeded the value in use. The value in use of the unit amounted to € 44.1 million as of December 31, 2021 and corresponded to the book value. After the devaluation, a residual goodwill of € 4.2 million remained. Key assumptions when evaluating the unit, which within the Pfeiffer Vacuum Group is responsible for the production of valves and chambers as well as local sales and service tasks, were the discount rate (11.4 %), the sustainable EBIT margin

(6.0 %), sustained sales growth (1.5 %) and sustained free cash flow (€ 3.4 million). The 2021 impairment for the above entity is included in the United States (Production) segment (see Note 32).

As of December 31, 2022, no reasonably possible change in a material assumption on which the valuation was based would result in the carrying amount of this unit exceeding its recoverable amount. Deviating from this, if the discount rate had increased by 1.4 percentage points to 14.3 % for the goodwill allocated to Nor-Cal Products Inc., the recoverable amount (value in use) would have corresponded to the book value, all other assumptions remaining constant. The same result would have resulted if the long-term EBIT margin used in the cash flow forecast had been reduced by 1.4 percentage points to 8.1 % or the long-term free cash flow by K€ 757 to K€ 4,462. In addition, an increase in the discount rate by 0.7 percentage points to 16.0 % for the Pfeiffer Vacuum Korea, Ltd. allocated goodwill, the recoverable amount (value in use) corresponding to the book value, all other assumptions remaining constant. The same result would have been achieved if the long-term EBIT margin used in the cash flow forecast had been reduced by 0.4 percentage points to 5.6 % or the long-term sales growth by 0.55 percentage points or the long-term free cash flow by K€ 555 to K€ 9,208. As of December 31, 2021, no reasonably possible change in a significant assumption on which the valuation was based resulted in the carrying amount of this unit exceeding its recoverable amount.

12. Property, plant and equipment

DEVELOPMENT OF PROPERTY, PLANT AND EQUIPMENT IN 2022

	Land and Buildings	Technical Equipment and Machinery	Other Equipment, Factory and Office Equipment	Construction in Progress	Total
	in K€	in K€	in K€	in K€	in K€
Acquisition or manufacturing cost					
Balance as at January 1, 2022	141,548	135,160	51,364	24,392	352,464
Currency changes	954	580	215	276	2,025
Additions	11,731	10,086	9,371	48,527	79,715
Disposals	-4,085	-6,728	-4,989	-2,765	-18,567
Reclassifications	11,801	18,701	1,480	-31,919	63
Balance as at December 31, 2022	161,949	157,799	57,441	38,511	415,700
Depreciation					
Balance as at January 1, 2022	60,323	83,017	33,080	92	176,512
Currency changes	138	285	202	—	625
Additions	10,300	10,254	6,301	—	26,855
Disposals	-3,498	-6,684	-4,774	—	-14,956
Balance as at December 31, 2022	67,263	86,872	34,809	92	189,036
Net book value as at December 31, 2022	94,686	70,927	22,632	38,419	226,664

DEVELOPMENT OF PROPERTY, PLANT AND EQUIPMENT IN 2021

	Land and Buildings	Technical Equipment and Machinery	Other Equipment, Factory and Office Equipment	Construction in Progress	Total
	in K€	in K€	in K€	in K€	in K€
Acquisition or manufacturing cost					
Balance as at January 1, 2021	127,940	125,396	45,920	16,386	315,642
Currency changes	2,787	983	531	177	4,478
Additions	7,508	7,376	6,305	18,555	39,744
Disposals	-2,657	-1,000	-1,941	-1,788	-7,386
Reclassifications	5,970	2,405	549	-8,938	-14
Balance as at December 31, 2021	141,548	135,160	51,364	24,392	352,464
Depreciation					
Balance as at January 1, 2021	53,490	74,720	29,149	90	157,449
Currency changes	688	543	371	—	1,602
Additions	8,381	8,720	5,308	2	22,411
Disposals	-2,236	-966	-1,748	—	-4,950
Balance as at December 31, 2021	60,323	83,017	33,080	92	176,512
Net book value as at December 31, 2021	81,225	52,143	18,284	24,300	175,952

In fiscals 2022 and 2021, no buildings and machinery were used as collateral to secure the Group's financial liabilities.

Neither in 2022 nor in the previous year there were any impairment losses or related reversals for property, plant, and equipment.

Afterwards the development of right of use assets is detailed. The right of use assets are included in property, plant & equipment.

DEVELOPMENT OF RIGHT OF USE ASSETS IN 2022

	Land and Buildings	Technical Equipment and Machinery	Other Equipment, Factory and Office Equipment	Total
	in K€	in K€	in K€	in K€
Acquisition or manufacturing cost				
Balance as at January 1, 2022	20,795	743	4,723	26,261
Currency changes	-79	33	103	57
Additions	9,989	365	1,579	11,933
Disposals	-3,407	-409	-1,532	-5,348
Balance as at December 31, 2022	27,298	732	4,873	32,903
Depreciation				
Balance as at January 1, 2022	8,071	510	2,913	11,494
Currency changes	35	27	86	148
Additions	4,447	297	1,242	5,986
Disposals	-2,830	-412	-1,493	-4,735
Balance as at December 31, 2022	9,723	422	2,748	12,893
Net book value as at December 31, 2022	17,575	310	2,125	20,010

DEVELOPMENT OF RIGHT OF USE ASSETS IN 2021

	Land and Buildings	Technical Equipment and Machinery	Other Equipment, Factory and Office Equipment	Total
	in K€	in K€	in K€	in K€
Acquisition or manufacturing cost				
Balance as at January 1, 2021	18,265	579	3,961	22,805
Currency changes	672	31	170	873
Additions	4,078	269	844	5,191
Disposals	-2,220	-136	-252	-2,608
Balance as at December 31, 2021	20,795	743	4,723	26,261
Depreciation				
Balance as at January 1, 2021	5,911	326	1,839	8,076
Currency changes	207	23	113	343
Additions	3,748	297	1,204	5,249
Disposals	-1,795	-136	-243	-2,174
Balance as at December 31, 2021	8,071	510	2,913	11,494
Net book value as at December 31, 2021	12,724	233	1,810	14,767

The group leases various land, buildings and cars (reported under "Other Equipment, Factory and Office Equipment") as well as other assets (copiers, printers, coffee machines, water dispensers and machinery).

Rental/lease contracts are typically made for fixed periods of 1 to 4 years and can include extension options. Lease terms are negotiated on an individual contract basis and contain a wide range of different terms and conditions.

The lease agreements do not include any covenants, but leased assets may not be used as security for borrowing purposes.

Extension and termination options are included in a number of property, car and equipment leases. These terms are used to maximize operational flexibility in terms of managing contracts. Except for rare case, the extension and termination options are exercisable only by the Group and not by the respective lessor.

In determining the lease term, management considers all facts and circumstances that create an economic incentive to exercise an extension option, or to not exercise a termination option. Extension options (or periods after termination options) are only included in the lease term if the lease is reasonably certain to be extended (or not terminated).

Further information regarding leasing please refer to Note 23, 31 and 33.

13. Investment properties

DEVELOPMENT OF INVESTMENT PROPERTIES

	2022	2021
	in K€	in K€
Acquisition or manufacturing cost		
Balance as at January 1	861	861
Additions	—	—
Disposals	—	—
Reclassifications	—	—
Balance as at December 31	861	861
Depreciation		
Balance as at January 1	509	485
Additions	24	24
Disposals	—	—
Reclassifications	—	—
Balance as at December 31	533	509
Net book value as at December 31	328	352

The real estate shown in this line item was rented out in fiscal 2022 and 2021. Rental revenues amounted to K€ 56 (2021: K€ 56) and direct operating expenses amounted to K€ 26 (2021: K€ 26). There were no impairment losses or reversals to be recognized in the year under review or in the previous year.

The fair value of investment properties amounts to € 0.3 million as per December 31, 2022 (2021: € 0.4 million). Fair values were derived on the basis of the Group's own calculations by discounting expected net rental revenues during the estimated remaining life by an appropriate discount rate (level 3 of the fair value hierarchy according to IFRS 13).

14. Other financial assets and other assets

Other financial assets mainly include long-term investments of K€ 1,194 (2021: K€ 1,208), plan assets of K€ 1,637 (2021: K€ 162) and deposits of K€ 1,853 (2021: K€ 689). The short-term-part of cash items and deposits is reported under current financial assets..

The amount of other assets end of 2022 relates particularly to prepaid expenses in connection with sales activities.

15. Inventories**COMPOSITION OF INVENTORIES**

	2022	2021
	in K€	in K€
Raw materials	104,141	55,537
Work in process	51,757	40,069
Finished products	93,095	66,572
Total inventories, net	248,993	162,178

Dec. 31

Materials consumption in fiscal 2022 amounted to € 342.6 million, (2021: € 291.0 million, adjusted) and is included in cost of sales.

In 2022, an amount of K€ 7,432 (2021: K€ 5,531) from the valuation of inventories at net realizable value was recorded as expense. This expense was shown under cost of sales.

16. Trade accounts receivable and contract assets

Trade receivables and contract assets do not bear interest and have a remaining term of less than one year. They are generally recognized upon initial recognition at the amount of the unconditional consideration. If they contain significant financing components, they are to be recognized at fair value instead. The Group holds trade receivables to collect the contractual cash flows and subsequently measures them at amortized cost using the effective interest method. Details on the Group's impairment methods and the calculation of the allowance are presented below.

COMPOSITION OF TRADE ACCOUNTS RECEIVABLE AND CONTRACT ASSETS

	2022	2021
	in K€	in K€
Trade accounts receivable	155,033	120,809
Contract assets	3,506	1,392
Loss allowances	-1,879	-1,222
Trade accounts receivable and contract assets, net	156,660	120,979

Dec. 31

The closing loss allowances for trade accounts receivable and contract assets as at January 1, 2022 and its further development until December 31, 2022 reconcile to the opening loss allowances as follows:

DEVELOPMENT OF LOSS ALLOWANCES

	2022	2021
	in K€	in K€
Balance as at January 1	1,222	872
Currency changes	36	53
Additions	950	730
Utilization	-329	-433
Balance as at December 31	1,879	1,222

The contract assets represent contractual rights to receive payments from customers for which the contractual performance obligations have been fulfilled by Pfeiffer Vacuum within the meaning of IFRS 15, but no unconditional right to payment has yet arisen. The method of profit realization according to the progress of the work was used here. The increase in contract assets by K€ 2,114 to K€ 3,506 is mainly due to the very positive order situation at Nor-Cal Products Inc. and Pfeiffer Vacuum Components & Solutions GmbH. The amount of the contract assets was netted with customer's considerations which were already paid (K€ 724).

To measure expected credit losses the Group applies the simplified approach under IFRS 9. Accordingly, the credit losses expected over the term are used for all trade accounts receivable and contract assets.

To measure the expected credit losses, trade receivables and contract assets have been grouped based on shared credit risk characteristics and the days past due. The contract assets relate to unbilled work in progress and have substantially the same risk characteristics as the trade receivables for the same types of contracts. The group has therefore concluded that the expected loss rates for trade receivables are a reasonable approximation of the loss rates for the contract assets.

The expected loss rates are based on the payment profiles of sales over a period of 60 months before December 31, 2022 or January 1, 2022 respectively and the corresponding historical credit losses experienced within this period. The historical loss rates are adjusted to reflect current and forward-looking information on macroeconomic factors affecting the ability of the customers to settle the receivables. The group has identified the GDP (Gross Domestic Product) of the countries in which it sells its goods to be the most relevant factor, and accordingly adjusts the historical loss rates based on expected changes in this factor.

On that basis, the loss allowance was determined as follows for both trade receivables and contract assets:

COMPOSITION OF LOSS ALLOWANCES

	Not overdue	Less than 30 days past due	More than 30 days past due	More than 60 days past due	More than 90 days past due	Total
	in K€	in K€	in K€	in K€	in K€	in K€
December 31, 2022						
Expected loss rate	0.00 %	0.09 %	0.00 %	0.00 %	22.54 %	
Gross carrying amount – trade accounts receivable	109,757	24,627	8,953	3,451	8,245	155,033
Gross carrying amount – contract assets	3,506	—	—	—	—	3,506
Loss allowance	—	21	—	—	1,858	1,879
December 31, 2021						
Expected loss rate	0.00 %	0.19 %	0.50 %	2.93 %	15.26 %	
Gross carrying amount – trade accounts receivable	83,783	21,760	5,837	2,323	7,106	120,809
Gross carrying amount – contract assets	1,392	—	—	—	—	1,392
Loss allowance	—	41	29	68	1,084	1,222

17. Other accounts receivable

This line item totaled K€ 13,095 as at December 31, 2022 (December 31, 2021: K€ 15,924). As in the year before, this position was characterized by expense subsidies of K€ 3,061 (December 31, 2021: K€ 4,388) and VAT claims of K€ 4,639 (December 31, 2021: K€ 8,337).

18. Cash and cash equivalents

The cash and cash equivalents item consists of cash at banks and cash on hand. Additionally, the Group records all bank deposits having an original maturity of three months or less as cash equivalents. The fair value of cash and cash equivalents corresponds to their net book value.

19. Share capital and additional paid-in capital

Unchanged compared to the previous year end, the share capital of Pfeiffer Vacuum Technology AG (parent company) consisted of 9,867,659 issued and outstanding no-par ordinary shares.

The Annual General Meeting on May 23, 2018, authorized the Management Board to increase the Group's share capital by K€ 12,631, or 4,933,829 shares, in consideration for contributions in cash and/or kind once or in partial amounts (authorized capital). This authorization is valid through May 23, 2023, and is subject to the consent of the Supervisory Board.

According to the resolution of the Annual General Meeting on May 23, 2019, the Management Board is authorized to issue fractional bonds with option or conversion rights or option or conversion obligations, profit participation rights or participating bonds (or combinations of these instruments) with an aggregate nominal value of up to € 200,000,000.00 and to grant the holders conversion rights for up to 2,466,914 no-par bearer shares of the Group having a pro-rata amount of up to € 6,315,299.84 of the share capital. This authorization is valid until May 22, 2024, and requires the consent of the Supervisory Board.

There were no changes of the additional paid-in capital in 2022 or 2021.

20. Paid and proposed dividends

At the Annual General Meeting on May 19, 2022, a dividend of € 4.08 per share was resolved (Annual General Meeting on May 12, 2021: € 1.60 per share). The dividend payment carried out thereunder amounted to K€ 40,260 (2021: K€ 15,778).

The Group's Management Board proposes paying a dividend of € 0.11 per share to the shareholders. This proposal is subject to approval by the Supervisory Board and the Annual General Meeting. The resulting payment of K€ 1,085 was not recognized as a liability as of December 31, 2022 due to the need for approval by the Annual General Meeting.

21. Other equity components

Other equity components comprise unrealized gains/losses on hedges and actuarial gains/losses resulting from valuation of defined benefit obligations and plan assets at fair value. Furthermore this position comprises foreign currency translation adjustments.

DEVELOPMENT OF OTHER EQUITY COMPONENTS

	Valuation of Defined Benefit Plans	Results from Cash Flow Hedges	Currency Changes	Total
	in K€	in K€	in K€	in K€
Balance as at January 1, 2021	-46,940	0	-6,640	-53,580
Changes in actuarial gains/losses (net of tax)	7,586	—	—	7,586
Changes in fair value of cash flow hedges (net of tax)	—	7	—	7
Changes in foreign currency translation	—	—	13,850	13,850
Balance as at December 31, 2021	-39,354	7	7,210	-32,137
Changes in actuarial gains/losses (net of tax)	18,417	—	—	18,417
Changes in fair value of cash flow hedges (net of tax)	—	8	—	8
Changes in foreign currency translation	—	—	7,461	7,461
Balance as at December 31, 2022	-20,937	15	14,671	-6,251

Due to the fact that the terms of all cash flow hedges are less than one year, the reported year-end balances as at December 31 of the respective years will be reclassified to the income statement the next year. The new year-end amounts result from changes during the respective year and thus not from prior years.

TAX EFFECT ON OTHER COMPREHENSIVE INCOME

	2022			2021		
	Gross Amount	Tax Effect	Net Amount	Gross Amount	Tax Effect	Net Amount
	in K€	in K€	in K€	in K€	in K€	in K€
Valuation of Defined Benefit Plans	25,918	-7,501	18,417	10,401	-2,815	7,586
Results from cash flow hedges	10	-2	8	10	-3	7
Currency changes	7,461	—	7,461	13,850	—	13,850
Total other comprehensive income	33,389	-7,503	25,886	24,261	-2,818	21,443

Dec. 31

The financial liabilities reported under current and non-current liabilities can lead to cash outflows from financing activities in future reporting periods

Leasing liabilities were recorded in 2022 and the previous year as follows:

LEASING LIABILITIES

	2022	2021
	in K€	in K€
Short-term	4,578	4,279
Long-term	7,858	8,876
Total	12,436	13,155

22. Treasury shares

At the Annual General Meeting on May 20, 2020, the shareholders authorized the Management Board to acquire treasury shares pursuant to § 71, Sub-Para. 1, No. 8, German Stock Corporation Act ("AktG"). This authorization allows the Group to acquire treasury shares representing up to € 2,526,120.70 of the capital stock (986,766 shares equal to 10 % of capital stock at the time of the resolution), requires the consent of the Supervisory Board for execution, and is valid through May 19, 2025.

23. Long-term financial liabilities

Long term financial liabilities are comprised as follows:

LONG-TERM FINANCIAL LIABILITIES

	2022	2021
	in K€	in K€
Liabilities to banks	—	5,000
Leasing liabilities	7,858	8,876
Total	7,858	13,876

In 2022 interest expenses relating to leasing liabilities were totaled € 0.4 million (2021: € 0.3 million).

As of the reporting date, no provisions from restoration obligations from lessee contracts (2021: € 0.1 million) were recognized.

Potential future cash outflows of K€ 2,798 (2021: K€ 166) have not been included in the lease liability because it is not reasonably certain that the leases will be extended (or not terminated). The assessment is reviewed if a significant event or a significant change in circumstances occurs which affects this assessment and which is within under the Group's control. During the current financial year, the financial effect of revising lease terms to reflect the effect of

exercising extension and termination options was an increase in recognized lease liabilities and right-of-use assets of K€ 740 (2021: K€ 256).

The amount of K€ 12,670 (2021: K€ 5,505) shown in the Consolidated Statements of Cash Flows under redemptions of leasing liabilities represents the total cash outflow from leases in fiscal 2022.

24. Income taxes

INCOME BEFORE TAX WAS TAXABLE IN THE FOLLOWING JURISDICTIONS

	2022	2021
	in K€	in K€
Germany	43,015	42,269
Outside Germany	75,837	50,232
Total	118,852	92,501

COMPOSITION OF INCOME TAX EXPENSE

	2022	2021
	in K€	in K€
Current taxes		
Germany	-15,063	-13,071
Outside Germany	-20,651	-17,932
	-35,714	-31,003
Deferred taxes		
Germany	1,602	-563
Outside Germany	1,612	1,052
	3,214	489
Income tax expense	-32,500	-30,514

The current tax expense of K€ 35,452 in 2022 is attributable to the earnings generated in 2022 (previous year: K€ 29,858). This line item additionally contained tax expenses for prior years amounting to K€ 262 (previous year: K€ 763).

In accordance with German tax laws, income taxes for the German companies consist of corporate income tax, trade tax and solidarity surcharge.

RECONCILIATION FROM EXPECTED TO ACTUAL INCOME TAX EXPENSE

	2022	2021
	in K€	in K€
Earnings before taxes	118,852	92,501
Expected tax expense using the tax rate of the parent company 29.30 %	-34,824	-27,103
Non-deductible expenses	-1,925	-7,177
Effects due to dividend payments	-386	-409
Difference foreign tax rates	3,258	3,328
Non-taxable income	1,135	1,714
Tax expenses for prior years	-262	-763
Other	504	-104
Income tax expense	-32,500	-30,514

As opposed to 33.0 % the year before, the tax ratio for the Pfeiffer Vacuum Group amounted to 27.3 % in 2022.

DEFERRED TAXES RELATE TO THE FOLLOWING BALANCE SHEET ITEMS

	2022	2021
	in K€	in K€
Deferred tax assets		
Pensions	9,874	17,743
Inventories	10,422	7,512
Financial liabilities	3,703	3,713
Provisions and contract liabilities	5,884	4,940
Tax credits	1,100	1,036
Tax loss carry forwards	77	136
Receivables	599	561
Intangible assets	305	275
Property, plant and equipment	393	185
Derivatives	124	45
Other	88	21
Total deferred tax assets	32,569	36,167
Thereof long-term deferred tax assets	11,749	19,375
Thereof short-term deferred tax assets	20,820	16,792
Deferred tax liabilities		
Property, plant and equipment	-5,509	-5,912
Intangible assets	-6,058	-5,721
Provisions and contract liabilities	-230	—
Receivables	-935	-307
Inventories	-95	-14
Other	—	—
Total deferred tax liabilities	-12,827	-11,954
Thereof long-term deferred tax liabilities	-11,567	-11,633
Thereof short-term deferred tax liabilities	-1,260	-321
Total deferred taxes, net	19,742	24,213

Dec. 31

AMOUNTS RECORDED IN THE BALANCE SHEET

	2022	2021
	in K€	in K€
Deferred tax assets	23,806	28,650
Deferred tax liabilities	-4,064	-4,437
Total deferred taxes, net	19,742	24,213

Dec. 31

DEFERRED TAXES RECORDED IN THE INCOME STATEMENT

	2022	2021
	in K€	in K€
Property, plant and equipment	355	447
Intangible assets	30	10
Derivatives	79	51
Pension	-361	-1,185
Provisions and contract liabilities	1,006	947
Receivables (including contract assets)	-630	106
Tax loss carry forwards	-63	-741
Inventories	2,797	853
Other	1	1
Total deferred taxes	3,214	489

As of December 31, 2022, the deferred tax assets reported by the Group include deferred taxes recognized directly in equity of K€ 7,966 (December 31, 2021: K€ 15,064). The amount of deferred tax liabilities recognized directly in equity is K€ 420 (December 31, 2021: K€ 0). As in the previous year, the amount in 2022 relates to actuarial gains/losses and hedging transactions recognized directly in equity.

No deferred tax assets were recognized for tax losses of K€ 1,126 (none of which can be offset until 2023), as these losses will probably not be able to be offset against taxable profits until they expire.

Provisions have not been established for additional taxes on the undistributed earnings of non-German subsidiaries. These earnings are considered to be permanently reinvested and could become subject to additional tax if remitted or deemed remitted as dividends. Under current German law, dividends from non-German and German subsidiaries are 95 % tax-exempt, i.e. 5 % of dividend income is not deductible from income for corporate tax purposes. The management estimates that the effects of this rule in Germany will be negligible.

On temporary differences in connection with shares in affiliated companies over the amount of € 10.4 million at December 31, 2022 (2021: € 8.5 million) no deferred tax liability has been recorded, since the Company is able to monitor the reversal of the temporary differences and in all probability these temporary differences will not reverse in the foreseeable future.

25. Pensions and similar obligations

Defined benefit pension plans

COMPOSITION OF THE NET LIABILITY RECORDED IN THE BALANCE SHEET

	2022	2021
	in K€	in K€
Present value of funded defined benefit obligation	92,799	118,417
Present value of unfunded defined benefit obligation	9,188	11,257
Total present value of defined benefit obligation	101,987	129,674
Fair value of plan assets	-66,915	-69,334
Net liability recognized on the balance sheet	35,072	60,340
Of which: prepayments of pension funds	-1,637	-162
Of which: pension provision	36,709	60,502

Dec. 31

REGIONAL SPLIT OF THE NET LIABILITY RECORDED IN THE BALANCE SHEET

	2022	2021
	in K€	in K€
Germany	27,201	47,165
Europe (excluding Germany)	8,159	9,934
Rest of world	-288	3,241
Net defined benefit liability	35,072	60,340

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For Pfeiffer Vacuum GmbH, there are plans in place consisting of old-age, invalidity, and surviving dependents benefits. These obligations are based upon plans reflecting period of service and final salary. However, these plans are closed for new employees since many years. For new employees, there is a retirement arrangement in place since December 31, 2007 which has been implemented as a direct commitment on a period of service and funded basis. Accordingly for all employees of Pfeiffer Vacuum GmbH an employer funded pension scheme is in place which is partially funded via the Pfeiffer Vacuum Trust e.V. There are no legally binding minimum funding requirements for these plans.

For former members of the Pfeiffer Vacuum Technology AG Management Board there are individually agreed plans in place, consisting of old-age, invalidity, and surviving dependents benefits. These obligations are based on period of service as well as final salary commitments and are also largely funded via the Pfeiffer Vacuum Trust e.V. Again, there are no legally binding minimum funding requirements.

For Pfeiffer Vacuum Inc., USA, there is a plan in place consisting of old-age, invalidity, and surviving dependents benefits with the obligations being based upon period of service and final salary. These benefits are partially funded via a trust arrangement. There are no legally binding minimum funding requirements.

For Pfeiffer Vacuum SAS, France, and for Pfeiffer Vacuum Korea, Ltd., Republic of Korea, there are plans in place with the obligations being based upon period of service and final salary to be paid as a one-time installment due at the beginning of the retirement. The plan of Pfeiffer Vacuum Korea, Ltd. is partially funded. There are no legally binding minimum funding requirements in France or the Republic of Korea.

**COMPOSITION OF THE
NET PENSION EXPENSES**

	2022	2021
	in K€	in K€
Current service cost	4,048	3,746
Net interest expense	708	544
Termination benefits	753	—
Past service cost	1,102	—
Net pension expenses	6,611	4,290

Net pension expenses were allocated to the functional expenses according to the input involved.

The expense for termination benefits results from a settlement agreement concluded in the reporting year with a former Executive Board member and the provisions made therein regarding the length of employment.

**DEVELOPMENT OF THE
DEFINED BENEFIT OBLIGATION**

	2022	2021
	in K€	in K€
Present value of defined benefit obligation as at January 1	129,674	136,050
Current service cost	4,048	3,746
Past service cost	1,102	—
Interest cost on the defined benefit obligation	1,722	1,377
Termination benefits	753	—
Actuarial gains/losses from changes in demographic assumptions	-2,426	-2,685
Actuarial gains/losses from changes in financial assumptions	-31,331	-6,783
Actuarial experience gains/losses	1,358	894
Benefits paid	-4,403	-4,017
Currency changes	1,490	1,092
Present value of defined benefit obligation as at December 31	101,987	129,674
Thereof attributable to:		
Active employees	49,496	63,810
Deferred employees	9,585	13,665
Pensioners	42,906	52,199

DEVELOPMENT OF PLAN ASSETS

	2022	2021
	in K€	in K€
Fair value of plan assets as at January 1	69,334	65,702
Interest income	1,014	727
Experience gains/losses	-6,348	2,024
Group contributions	5,602	3,431
Benefit payments	-3,907	-3,411
Currency changes	1,220	861
Fair value of plan assets as at December 31	66,915	69,334

ACTUARIAL ASSUMPTIONS

	2022	2021
	in %	in %
Germany		
Discount rate	3.70	1.10
Wage and salary trend	3.00	3.00
Pension trend	2.00	2.00
Mortality tables	Heubeck 2018 G	Heubeck 2018 G
United States		
Discount rate	5.63	3.15
Wage and salary trend	5.00	5.00
Mortality tables	MP-2021	MP-2021
France, Republic of Korea		
Discount rate (weighted average)	0.56	1.79
Wage and salary trend (weighted average)	1.62	3.37
Mortality tables France	Insee M/F 2007–2060	Insee M/F 2007–2060
Mortality tables Republic of Korea	Insurance Development Institute of Korea	Insurance Development Institute of Korea

Dec. 31

COMPOSITION OF PLAN ASSETS

	2022		2021	
	in K€	in %	in K€	in %
Equity securities	9,105	13.6	19,372	27.9
Debt securities	46,823	70.0	41,352	59.6
Cash and cash equivalents	1,399	2.1	1,417	2.0
Other	9,588	14.3	7,193	10.5
Total	66,915	100.0	69,334	100.0

Dec. 31,

With the exemption of plan assets in the category “Other” totaling K€ 8,771 (December 31, 2021: K€ 6,025), all plan assets are traded on an active market.

Plan assets do not contain financial instruments issued by the Group or other assets owned by the Group.

Accounting for 75 % the vast majority of plan assets related to the funding of the German benefit plans. To invest these funded amounts fiducially and insolvency protected, Pfeiffer Vacuum Trust e.V. was founded. Pfeiffer Vacuum Trust e.V. issued a mutual fund with a pursued target equity allocation of up to 30 % as well as a pursued fixed-income securities and cash allocation of at least 70 %. The fund is managed by an unrelated third-party asset management company with the major conditions regarding the asset allocation being

given and adjusted when necessary. Funds are invested conservatively using also a value safeguarding approach. Underlying risks in connection with the investment of plan assets, for example fair value and default risks, are minimized accordingly.

The risks relating to the defined benefit plans within Pfeiffer Vacuum Group predominantly relate to the determination of discount rates. Changes to this parameter impact disproportionately the present value with the current relatively low interest rate level leading to a comparably high benefit obligation. In addition, benefit obligation is impacted by the other actuarial assumptions (for example life expectancy, wage and salary trend, pension trend). Depending on the elements of the pension plan life expectancy or pension trend are of subordinate importance. The following table

shows the respective impact of an isolated adjustment of individual assumptions with all other parameters including the basic methodology kept constant compared to the original calculation.

SENSITIVITY ANALYSIS 2022

	Change in actuarial assumption	Impact on defined benefit obligation	
		in K€	in %
Present value of defined benefit obligation as at December 31, 2022		101,987	
Discount rate	1.0 %-point increase	-9,983	-9.8
	1.0 %-point decrease	12,269	12.0
Pension trend	0.25 %-point increase	1,719	1.7
	0.25 %-point decrease	-1,650	-1.6
Wage and salary trend	0.5 %-point increase	1,102	1.1
	0.5 %-point decrease	-1,040	-1.0
Life expectancy	increase by 1 year	2,817	2.8
	decrease by 1 year	-2,930	-2.9

Dec. 31

SENSITIVITY ANALYSIS 2021

	Change in actuarial assumption	Impact on defined benefit obligation	
		in K€	in %
Present value of defined benefit obligation as at December 31, 2021		129,674	
Discount rate	1.0 %-point increase	-10,152	-7.8
	1.0 %-point decrease	26,333	20.3
Pension trend	0.25 %-point increase	2,842	2.2
	0.25 %-point decrease	-2,715	-2.1
Wage and salary trend	0.5 %-point increase	7,677	5.9
	0.5 %-point decrease	-4,146	-3.2
Life expectancy	increase by 1 year	5,253	4.1
	decrease by 1 year	-5,228	-4.0

Dec. 31

**EXPECTED MATURITY
OF UNDISCOUNTED PENSION PAYMENTS**

	2022	2021
	in K€	in K€
Less than 1 year	4,681	4,231
Between 1 and 2 years	4,787	4,656
Between 2 and 3 years	5,248	5,283
Between 3 and 4 years	5,451	5,357
Between 4 and 5 years	5,414	5,450
More than 5 until 10 years	33,441	33,261

Dec. 31

The weighted average duration of the defined benefit obligation at December 31, 2022 amounted to 13.4 years (December 31, 2021: 15.9 years). The expected contributions for defined benefit plans in 2023 will be approximately € 1.4 million.

In 2021, the IFRIC issued a new position regarding the accounting for lump sum pension payments. As a result, the provision for the pension obligation of Pfeiffer Vacuum SAS, Annecy, was revalued and the result was a reduction in the scope of the obligation by € 0.9 million (change in accounting method according to IAS 8). Due to materiality considerations, the amount was recognized directly in equity as an actuarial gain for 2021 within other components of equity. The effects of this change on the asset, financial and earnings position in future periods are also immaterial.

Defined contribution plans

Employees of the Group in certain countries are covered by defined contribution plans. Generally, contributions are based upon a percentage of the employee's wages or salaries. The costs of these plans charged to operations amounted to K€ 15,495 in 2022 (2021: K€ 14,308).

26. Trade accounts payable

Trade accounts payable do not bear any interest and, as in the year before, have maturities of less than one year.

27. Contract liabilities

Contract liabilities as of December 31, 2022 include obligations to transfer vacuum products or render services to Pfeiffer Vacuum's customers from whom payments have already been received. Presumably K€ 1,497 of the contract liabilities will be realized or fulfilled after more than 12 months.

Short term contract liabilities recorded as at December 31, 2021 have been mainly realized as revenues in the fiscal year 2022.

28. Other payables

Other payables (K€ 33,112 as at December 31, 2022, and K€ 27,742 as at December 31, 2021) mainly consist of payroll taxes and VAT, as well as payables from social security contributions and legally binding participation programs. They do not bear any interest and, as in the year before, have maturities of less than one year.

29. Provisions

COMPOSITION OF PROVISIONS

	2022	2021
	in K€	in K€
Personnel provisions	28,182	30,801
Warranty provisions	18,323	13,916
Other provisions	4,243	3,464
Total	50,748	48,181

Dec. 31

Provisions for employee-related expenses primarily include provisions for profit-sharing obligations and bonuses.

Warranty provisions include the amounts expected due to claims in connection with product warranties. They are recorded as per the close of the fiscal year for realized revenues based on management's estimates and experience.

Of the other accruals, no accruals relate to accruals from asset retirement obligations under lessee agreements.

30. Short-term financial liabilities

SHORT-TERM FINANCIAL LIABILITIES

	2022	2021
	in K€	in K€
Liabilities to banks	63,597	—
Leasing liabilities	4,578	4,279
Total	68,175	4,279

DEVELOPMENT OF PROVISIONS

	Personnel	Warranty	Other	Total
	in K€	in K€	in K€	in K€
Balance as at January 1, 2022	30,801	13,916	3,464	48,181
Currency changes	155	55	46	256
Additions	32,121	11,025	5,064	48,210
Utilization	-33,257	-6,575	-4,231	-44,063
Releases	-1,638	-98	-100	-1,836
Balance as at December 31, 2022	28,182	18,323	4,243	50,748

Liabilities to banks

The long-term loan that still existed in the previous year was replaced in 2022 by a short-term general loan agreement. The credit line can be accessed in a number of ways. Amounts borrowed bear variable interest based on Euribor plus a market-based margin. Interest is calculated on a quarterly basis. There were changes in the utilization of the loan in 2022, the valuta as of December 31, 2022 was € 63.6 million (previous year: € 5.0 million). Interest expenses of € 0.5 million (previous year: € 0.4 million) were recognized in this regard in the 2022 financial year.

Credit lines of € 60.2 million (December 31, 2021: € 10.3 million) are available to the Pfeiffer Vacuum Group for operational purposes.

31. Commitments and other financial obligations

The Group has entered into leases and maintenance agreements which expire on various dates, some of which are renewable. The tables below present the maximum amount of the contractual commitments as at year end, classified by the periods in which the contingent liabilities or commitments will expire.

Purchase obligations include long-term arrangements for future supplies of materials. For 2022, no rental and leasing expenses from leases that do not meet the criteria of IFRS 16 were recognized (2021: € 0.0 million). Only leases which do not meet the criteria of IFRS 16 are reported in the above table.

CONTRACTUAL OBLIGATIONS AS AT DECEMBER 31, 2022

	Total	Payments Due by Period			
		< 1 Year	1–3 Years	3–5 Years	> 5 Years
	in K€	in K€	in K€	in K€	in K€
Operating leases (not IFRS 16)	182	57	125	—	—
Purchase obligations	115,479	102,725	12,754	—	—
Binding Investment Commitments	6,998	6,998	—	—	—
Repair and maintenance	27,727	11,580	16,143	4	—
Total	150,386	121,360	29,022	4	—

CONTRACTUAL OBLIGATIONS AS AT DECEMBER 31, 2021

	Total	Payments Due by Period			
		< 1 Year	1–3 Years	3–5 Years	> 5 Years
	in K€	in K€	in K€	in K€	in K€
Operating leases (not IFRS 16)	—	—	—	—	—
Purchase obligations	79,957	70,939	9,018	—	—
Binding Investment Commitments	2,630	424	2,206	—	—
Repair and maintenance	11,281	5,950	5,185	145	1
Total	93,868	77,313	16,409	145	1

32. Segment reporting

The Group's business operations include the development, manufacture, sale and service of vacuum pumps, vacuum components and instruments, as well as vacuum systems. The subsidiaries in the individual countries distribute prod-

ucts and provide services. Some entities within the Group additionally execute production functions. The entire product portfolio is offered by all sales subsidiaries.

Controlling of business development by corporate management is carried out on the level of the legal entities. Accordingly, the Group identifies its primary operating segments by legal entity. Due to the similarity of their economic environment, the same product portfolio sold, same sales markets, same cost structures and same sales channels,

SEGMENT REPORTING AS AT DECEMBER 31, 2022

	Germany	France	Rest of Europe	USA	USA (Production)	Republic of Korea	Rest of Asia	All Others	Consolidation	Group
	in K€	in K€	in K€	in K€	in K€	in K€	in K€	in K€	in K€	in K€
Net sales	304,747	327,204	123,271	178,971	87,375	116,349	185,277	70,353	-476,836	916,711
Thereof: Third party	147,244	91,820	122,636	177,849	71,837	108,302	159,430	37,593	—	916,711
Thereof: Intercompany	157,503	235,384	635	1,122	15,538	8,047	25,847	32,760	-476,836	—
Operating profit ¹	45,908	34,439	10,196	4,873	4,007	2,440	16,482	1,021	—	119,366
Financial income, net	227	-201	-4	1,073	-904	-170	-265	-270	—	-514
Earnings before taxes ¹	46,135	34,238	10,192	5,946	3,103	2,270	16,217	751	—	118,852
Segment assets	171,818	200,300	48,075	84,763	70,823	96,798	111,998	79,157	—	863,732
Thereof: Assets according to IFRS 8.33 (b) ²	75,147	91,712	1,435	24,943	24,392	39,014	16,153	46,278	—	319,074
Segment liabilities	130,025	98,818	15,369	9,279	14,721	21,440	26,069	16,657	—	332,378
Capital expenditures:										
Property, plant and equipment ³	19,004	12,508	348	2,108	654	21,869	3,579	7,712	—	67,782
Intangible assets	1,475	4,591	—	—	—	—	6	6,980	—	13,052
Depreciation										
Property, plant and equipment ⁴	6,471	6,619	1,336	2,696	876	1,959	3,500	3,373	—	26,830
Intangible assets	999	610	7	621	1,814	2	29	321	—	4,403

¹ Including the results of intercompany profit elimination (€ -5.5 million) which were allocated to the segments.

² Non-current assets other than financial instruments, deferred tax assets and prepaid pension cost

³ Including investment properties excluding addition of right-of-use-assets from leases

⁴ Including right-of-use assets from leases and investment property

the Group basically aggregates its European and Asian subsidiaries into one reporting segment, "Europe (excluding Germany and France)" and "Rest of Asia". In contrast, the production companies in Germany, France, in the US and the Republic of Korea were presented separately each as an individual segment. This was caused by the different

functions of these entities, predominantly resulting from the existing production function. For this reason the prerequisites for an aggregation with the other segments are not given. The purely sales-oriented entity in the US is thus also presented separately. All operating segments that individually or as a group do not have to be reported separately

are included in the segment „All others“. Accordingly this segment mainly includes the entities producing instruments and components. Unchanged compared to previous year, all information is based upon the geographic location of the Group in question.

SEGMENT REPORTING AS AT DECEMBER 31, 2021

	Germany	France	Rest of Europe	USA	USA (Production)	Republic of Korea	Rest of Asia	All Others	Consolidation	Group
	in K€	in K€	in K€	in K€	in K€	in K€	in K€	in K€	in K€	in K€
Net sales	266,609	255,526	110,291	149,308	56,897	121,614	158,419	52,040	-399,331	771,373
Thereof: Third party	127,288	57,852	109,990	148,020	45,594	116,903	141,202	24,324	—	771,373
Thereof: Intercompany	139,321	197,674	301	1,288	11,303	4,711	17,017	27,716	-399,331	—
Operating profit ¹	39,754	22,525	8,518	5,745	-18,061	16,617	12,459	5,536	—	93,093
Financial income, net	-25	-193	-20	925	-736	24	-191	-376	—	-592
Earnings before taxes ¹	39,729	22,332	8,498	6,670	-18,797	16,641	12,268	5,160	—	92,501
Segment assets	159,137	163,394	42,598	78,361	52,156	67,904	93,299	51,027	—	707,876
Thereof: Assets according to IFRS 8.33 (b) ²	62,136	80,768	1,437	26,622	23,908	18,681	14,746	28,056	—	256,354
Segment liabilities	79,571	90,049	14,436	12,032	7,640	15,095	19,714	9,963	—	248,500
Capital expenditures:										
Property, plant and equipment ³	8,322	10,025	410	3,971	402	3,819	2,246	5,358	—	34,553
Intangible assets	3,527	2,088	4	23	—	—	47	1,365	—	7,054
Depreciation										
Property, plant and equipment ⁴	5,532	5,542	1,252	1,874	799	1,503	3,263	2,670	—	22,435
Intangible assets	857	675	9	243	18,022	2	32	235	—	20,075

¹ Including the results of intercompany profit elimination (€ -2.4 million) which were allocated to the segments.

² Non-current assets other than financial instruments, deferred tax assets and prepaid pension cost

³ Including investment properties excluding addition of right-of-use-assets from leases

⁴ Including right-of-use assets from leases and investment property

Transactions between segments are based upon the arm's length principle. The internal reporting on which the disclosures are based is IFRS. Segment sales and segment results in the primary reporting format initially include the effects of inter-segment transactions. These effects are eliminated in connection with the consolidation process.

33. Financial instruments

Fair value

The net book value of financial instruments (e.g. cash and cash equivalents, trade accounts receivable and trade accounts payable, other accounts receivable and payable) essentially equals their fair value.

Interest rate risks

The interest-bearing portion of cash and cash equivalents involves interest rate risks. All investment forms have variable interest rates and are invested on a short-term basis. There are no further investment forms that result in interest rate risks within the Pfeiffer Vacuum Group.

Due to the short investment period for cash and cash equivalents, the agreed interest rate equals the market rate. Even if the market rate should change significantly, there will be no material impact on the fair value of cash and cash equivalents because the interest rate can be adjusted after only a short period of time.

As of December 31, 2022, as in the previous year, there were no other interest-sensitive assets. Due to the amount of cash and cash equivalents as of December 31, 2022, a hypothetical increase (decrease) in the market interest rate by 50 basis points would result in an increase (decrease) in earnings of K€ 339 (December 31, 2021: increase/decrease of K€ 497). Due to the financial liabilities reported as of December 31, 2022, an increase (decrease) in the market interest rate by 50 basis points would have resulted in a decrease (increase) in earnings of K€ 275 (December 31, 2021: increase/decrease of K€ 25).

Credit risks

Due to the Group's vastly heterogeneous customer structure, there are no material credit risk concentrations within the Group. Credit risks are additionally minimized through rigorous accounts receivable management and by monitoring our customers' payment patterns. Furthermore, deliveries to new customers are essentially made only after credit assessment, against payment in advance or credit limit. As a result, Pfeiffer Vacuum is able to keep the level of its allowance for doubtful accounts low, even in difficult economic times. The maximum theoretical credit risk equates the gross book value less already recognized allowance. For further details in respect to risk provision for trade accounts receivables please refer to Note 16.

Liquidity risks

Due to the above-average level of cash and cash equivalents, no liquidity risks can be identified.

Foreign exchange rate risks

Approximately 63 % (2021: 58 %) of the Group's net sales are denominated in currencies other than the euro, primarily in U.S. dollars and in KRW. The Group enters into foreign currency forward contracts and options to hedge the exposure of its forecasted sales against currency fluctuations. All derivative financial instruments are entered into only within this scope.

In the case of contracts classified as "cash flow hedges" according to IFRS 9 / IAS 39, Pfeiffer Vacuum accounts for the derivative financial instruments at market value either as an asset or as a liability. Changes in the value of the cash flow hedges are posted to other equity components without affecting income, taking into account any tax effects. In the period in which the underlying transaction is recognized in profit or loss, the item that was previously not recognized in profit or loss is reclassified to the income statement (exchange rate result). For contracts classified as cash flow hedges, no amounts were recognized in profit or loss in 2022 and 2021 due to hedge ineffectiveness. Reclassifications from the other components of equity to the result as a result of cash flow hedges being terminated prematurely were also not necessary in this period. If there are derivatives in the portfolio, they are valued at market value at the end of the financial year using current forward rates. The positive market values of the cash flow hedges included in other receivables as of December 31, 2022

amounted to K€ 10. As of December 31, 2022, there was an equity effect of K€ 10 after taking into account taxes of K€ –2 due to the fact that they were taken into account with no effect on income.

The derivatives classified as fair value hedges as of December 31, 2022 were recognized in profit or loss in the amount of K€ 498 and reported under other receivables (December 31, 2021: other liabilities in the amount of K€ 171). Derivative financial instruments are not entered into for speculative purposes. As of December 31, 2022 and December 31, 2021, there were no contracts with a remaining term of more than one year.

As of December 31, 2022, there were forward exchange contracts in foreign currency (U.S. dollars) with a nominal value of € 3.3 million (December 31, 2021: U.S. dollars € 14.5 million) with a remaining term of well under one year. The Group continuously checks the creditworthiness of business partners and only transacts business with established commercial banks. Exchange rate risks within the meaning of IFRS 7 arise from financial instruments that are denominated in a currency other than the functional currency and are of a monetary nature; Exchange rate-related differences from the translation of financial statements into the group currency are not taken into account. All non-functional currencies in which Pfeiffer Vacuum enters into financial instruments are considered relevant risk variables. In the Pfeiffer Vacuum Group, the majority of original financial instruments are in functional currency. Deviating from this, currency risks only exist with the financial investments available for sale, with some of the trade accounts receivable and with the derivative financial instruments. If the derivative financial instruments are classified as cash flow hedges, a change in the exchange rate does not affect the income statement, only equity. Currency-related changes in available-for-sale financial investments also only affect equity.

If the euro were to depreciate by 10 % as of December 31, 2022, consolidated earnings and consolidated equity would have been K€ 28,699 higher. An appreciation of the euro by 10 % as of December 31, 2022 would have reduced the consolidated result and consolidated equity by K€ 23,476. An appreciation of the euro by 10 % as of December 31, 2021 would have reduced the consolidated result by K€ 5,259. If the euro were to depreciate by 10 % as of December 31, 2021, consolidated earnings would have been K€ 6,416 higher. The effects on the consolidated result and the consolidated equity result mainly from the U.S. dollar sensitivity as the currency used in the preparation of the consolidated financial statements.

Composition of financial instruments

The following tables show the composition of financial instruments by balance sheet line item and valuation cate-

gory and fair value as well as net results by valuation category.

COMPOSITION OF FINANCIAL INSTRUMENTS AS AT DECEMBER 31, 2022

	Category According to IFRS 9	Net Book Value	Amounts Recognized According to IFRS 9			Fair Value
			Amortized Cost	Fair Value Recognized in Equity	Fair Value Through Profit and Loss	
		in K€	in K€	in K€	in K€	in K€
Assets						
Cash and cash equivalents	AC	67,840	67,840	—	—	67,840
Trade accounts receivable and contract assets	AC	156,660	156,660	—	—	156,660
Other financial assets	AC	5,242	5,242	—	—	5,242
Derivative financial instruments (excl. hedges)	FVPL	498	—	—	498	498
Derivative financial instruments (incl. hedges)	FVOCI	10	—	10	—	10
Liabilities						
Trade accounts payable	AC	86,158	86,158	—	—	86,158
Financial liabilities (excl. leasing)	AC	63,597	63,597	—	—	63,597
Derivative financial instruments (excl. hedges)	FVPL	—	—	—	—	—
Derivative financial instruments (incl. hedges)	FVOCI	1	—	—	1	1
Totals by valuation categories:						
Amortized Costs (AC) ¹		79,987	79,987	—	—	79,987
Fair Value through Profit or Loss (FVPL) ²		498	—	—	498	—
Fair Value through other Comprehensive Income (FVOCI) ³		9	—	9	—	9

¹ AC = Amortized Costs;

² FVPL = Fair Value through Profit or Loss;

³ FVOCI = Fair Value through other Comprehensive Income

COMPOSITION OF FINANCIAL INSTRUMENTS AS AT DECEMBER 31, 2021

	Category According to IFRS 9	Net Book Value	Amounts Recognized According to IFRS 9			
			Amortized Cost	Fair Value Recognized in Equity	Fair Value Through Profit and Loss	Fair Value
			in K€	in K€	in K€	in K€
Assets						
Cash and cash equivalents	AC	99,371	99,371	—	—	99,371
Trade accounts receivable and contract assets	AC	120,979	120,979	—	—	120,979
Other financial assets	AC	2,670	2,670	—	—	2,670
Derivative financial instruments (excl. hedges)	FVPL	—	—	—	—	—
Derivative financial instruments (incl. hedges)	FVOCI	10	—	10	—	10
Liabilities						
Trade accounts payable	AC	58,046	58,046	—	—	58,046
Financial liabilities (excl. leasing)	AC	5,000	5,000	—	—	5,000
Derivative financial instruments (excl. hedges)	FVPL	—	—	—	—	—
Derivative financial instruments (incl. hedges)	FVOCI	171	—	—	171	171
Totals by valuation categories:						
Amortized Costs (AC) ¹		159,974	159,974	—	—	159,974
Fair Value through Profit or Loss (FVPL) ²		-171	—	—	-171	-171
Fair Value through other Comprehensive Income (FVOCI) ³		10	—	10	—	10

¹ AC = Amortized Costs;² FVPL = Fair Value through Profit or Loss;³ FVOCI = Fair Value through other Comprehensive Income

NET RESULTS BY VALUATION CATEGORY 2022

	From Interest/ Dividends	From subsequent valuation			From Derecognition	Net result 2022
		At Fair Value	Currency Translation	Impairment/ Reversal of Impairment		
	in K€	in K€	in K€	in K€	in K€	in K€
Financial Instruments (AC) ¹	-514	—	-834	-950	329	-1,969
Derivative Financial Instruments (incl. hedges) (FV OCI) ²	—	10	—	—	—	10
Derivative Financial Instruments (excl. hedges) (FV PL) ³	—	498	—	—	—	498

¹ AC = Amortized Costs² FVOCI = Fair Value through other Comprehensive Income³ FVPL = Fair Value through Profit or LossDetermination of fair values
of financial instruments

Determination of the fair value of derivative financial instruments (K€ 508 as at December 31, 2022; K€ -161 as at December 31, 2021) was done according to level 2 of the fair value hierarchy as set out in IFRS 13 "Fair Value Measurement" using accepted valuation principles and directly obtainable and up-to-date market parameters. A significant default risk is not given for these financial instruments.

In the case of financial liabilities with variable interest rates, the agreed interest rates correspond to the current market interest rates. Consequently, the book values correspond to the fair values.

NET RESULTS BY VALUATION CATEGORY 2021

	From Interest/ Dividends	From subsequent valuation			From Derecognition	Net result 2021
		At Fair Value	Currency Translation	Impairment/ Reversal of Impairment		
	in K€	in K€	in K€	in K€	in K€	in K€
Financial Instruments (AC) ¹	-592	—	813	-730	430	-79
Derivative Financial Instruments (incl. hedges) (FV OCI) ²	—	10	—	—	—	10
Derivative Financial Instruments (excl. hedges) (FV PL) ³	—	-171	—	—	—	-171

¹ AC = Amortized Costs² FVOCI = Fair Value through other Comprehensive Income³ FVPL = Fair Value through Profit or Loss

Remaining terms of financial instruments

The following table shows the financial liabilities by maturity class based on the remaining terms on the balance sheet date. The analysis relates exclusively to financial instruments

and lease liabilities. These are undiscounted cash flows; a reconciliation of the amounts shown in the consolidated balance sheet is therefore not possible in principle.

MATURITIES AS OF DEC. 31, 2022

	up to 1 year	1 year up to 5 years	> 5 years	Total
	in K€	in K€	in K€	in K€
Financial liabilities	63,597	—	—	63,597
Finance lease liabilities	4,578	6,353	1,505	12,436
Trade accounts payable	86,158	—	—	86,158

MATURITIES AS OF DEC. 31, 2021

	up to 1 year	1 year up to 5 years	> 5 years	Total
	in K€	in K€	in K€	in K€
Financial liabilities	—	5,000	—	5,000
Finance lease liabilities	4,279	7,415	1,461	13,155
Trade accounts payable	58,046	—	—	58,046

The following table shows the changes in financial liabilities that were deemed as financing activities in the Consolidated Statements of Cash-flows.

NET DEBT RECONCILIATION

	Loans	Lease liabilities	Other liabilities	Total
	in K€	in K€	in K€	in K€
Net book value as at January 1, 2021	60,000	13,051	64	73,115
Proceeds from financial liabilities	—	5,191	—	5,191
Thereof cash flow-relevant	—	—	—	—
Repayment of financial liabilities	–55,000	–5,505	–64	–60,569
Thereof cash flow-relevant	–55,000	–5,505	–64	–60,569
Foreign exchange differences	—	418	—	418
Net book value as at December 31, 2021	5,000	13,155	—	18,155
Proceeds from financial liabilities	58,597	11,933	—	70,530
Thereof cash flow-relevant	58,597	—	—	58,597
Repayment of financial liabilities	—	–12,670	—	–12,670
Thereof cash flow-relevant	—	–12,670	—	–12,670
Foreign exchange differences	—	18	—	18
Net book value as at December 31, 2022	63,597	12,436	—	76,033

34. Management of financial risks

With an equity ratio of 61.5 % as of December 31, 2022, Pfeiffer Vacuum has a high equity base at the end of the 2022 fiscal year. In addition, cash and cash equivalents as of December 31, 2022 amounted to € 67.8 million. With existing financial liabilities at the end of the 2022 financial year totaling € 76.0 million, the Group only shows very little net debt at this point in time. In our opinion, the financial leeway required for the successful further development of the Group is still available. In order to finance the further high investments planned for 2023 and the following years and the operational business development, the use of the liquidity generated in the group is planned. This is supplemented by further financial liabilities taken out by Pfeiffer Vacuum Technology AG, which will pass on the liquidity thus obtained to the relevant Group companies as part of its internal group financing function. It is planned to involve the shareholders in the financing of investments and operational business development through a reduced profit distribution (see also Note 20). The Pangea GmbH, Maulburg, which, as a company of the Busch Group, is a majority shareholder in Pfeiffer Vacuum Technology AG, announced on November 6, 2022, that it wished to conclude a domination and profit and loss transfer agreement (DPLTA) with Pfeiffer Vacuum Technology AG as the controlled entity. The Management Board decided to enter into contractual negotiations for this purpose. At the time of compilation of the combined management report, these negotiations had not yet been concluded. Moreover, the DPLTA requires the approval of the Supervisory Board in order to become effective, and the Annual Shareholders Meeting of Pfeiffer Vacuum Technology AG must approve it with a qualified majority of 75 % of the share capital present at the time the resolution is adopted. Finally, the DPLTA must be registered with the commercial register. If all conditions are met, Pfeiffer Vacuum Technology AG will in future transfer its

entire profit under commercial law to Pangea GmbH. At the same time, Pangea GmbH will be obligated to compensate any annual net loss. This means that once the DPLTA becomes effective, the minority shareholders would receive an entitlement to compensation from Pangea GmbH pursuant to § 305 German Stock Corporation Act ("AktG") and a compensation payment pursuant to § 304 "AktG".

Liquid funds are invested in the short term and conservatively. Due to the high equity ratio compared to the industry and the current earnings and liquidity situation, we assume that Pfeiffer Vacuum will be able to raise the necessary outside capital to finance replacement and expansion investments in the future. This also includes the scope to react to changes in the economic situation at short notice.

35. Earnings per share

COMPUTATION OF EARNINGS PER SHARE

	2022	2021
Net income K€	86,352	61,987
Weighted average number of shares	9,867,659	9,867,659
Number of conversion rights	—	—
Adjusted weighted average number of shares	9,867,659	9,867,659
Earnings per share in € (basic/diluted)	8.75	6.28

There were no transactions with ordinary shares or ordinary shares issued during the period between the balance sheet date of December 31, 2022, and the preparation of the Consolidated Financial Statements.

ADDITIONAL NOTES AND SUPPLEMENTAL INFORMATION

36. Related party disclosures

Please refer to Note 5 with regard to shareholdings in affiliates. Details on the volume of business transactions carried out between the Group companies are disclosed in the segment reporting in Note 32, which also includes intercompany sales. All transactions are carried out at conditions that are usual and customary in the market and are entirely eliminated during the consolidation process. Therefore, there is no impact on financial position or results.

Related parties and persons particularly are natural persons who have control or joint control of the reporting entity, who have significant influence over the reporting entity or who are a member of the key management personnel of the reporting entity or of a parent of the reporting entity. This also applies to close members of that person's family. Moreover, all companies belonging to the same Group of companies are related parties.

Pfeiffer Vacuum Group does not have holdings in any jointly controlled entities. Furthermore, no control exists with respect to special purpose entities. Thus, particularly key management personnel and close family members, parent companies as well companies belonging to the same group of companies have been identified as related parties.

Please refer to Notes 40 and 41 regarding the remuneration paid to the members of the Management and Supervisory Boards, as well as regarding potential transactions with members of these corporate bodies. Aside from their activities on the Supervisory Board, the members of the Supervisory Board do not provide individual services for the Group or any of its companies. In contrast thereto, the employee representatives on the Supervisory Board receive salaries under the rules of the respective employment contracts for their work at the Group.

As of December 31, 2022, Dr. Karl Busch, Ms. Ayhan Busch, Ms. Ayla Busch, Mr. Sami Busch and Mr. Kaya Busch, all Germany, according to the information available to us, a total of 63.66 % of the voting rights in the group (previous year: 62.96 %). The shares are held indirectly via Pangea GmbH, Maulburg, Germany, which is the indirect parent company of the Pfeiffer Vacuum Group, and other legally independent units of the family-run Busch Group. Busch Holding GmbH & Co. KG, Maulburg, prepares the consolidated financial statements for the largest circle. Pfeiffer Vacuum Technology AG prepares the consolidated financial statements for the smallest circle. To the best of our knowledge, Busch Holding GmbH & Co. KG has Dr. Karl Busch, Ms. Ayhan Busch, Ms. Ayla Busch, Mr. Sami Busch and Mr. Kaya Busch hold 100 %.

Based on a participation rate of 62.96 % known to us at the time of the Annual General Meeting on May 19, 2022 (previous year: 62.96 % and Annual General Meeting on May 12, 2021) and the resolution on the appropriation of profits passed there, a dividend of € 25.3 million was paid to Pangea GmbH and the Busch Group (previous year: € 9.9 million).

There were no transactions going beyond this with Busch Holding GmbH & Co. KG, Pangea GmbH or other indirect parent companies in the year under review. The composition of the other transactions of companies of the Pfeiffer Vacuum Group with other companies of the Busch Group is as follows:

COMPOSITION OF FURTHER TRANSACTIONS

	Income	Expenses	Receivables Dec. 31	Liabilities Dec. 31
	in K€	in K€	in K€	in K€
2022 goods	3,897	2,210	937	475
2022 services	6,740	613	1,956	204
2021 goods	2,141	2,527	392	327
2021 services	1,556	1	1,644	946

All transactions in 2022 and 2021 were predominantly related to the purchase or sale of goods and the purchase or provision of services. After the conclusion of a framework agreement for the provision of services for the development and operation of a joint IT system in spring 2022, the services rendered to the Busch Group in this regard increased in the reporting year. As part of the IT integration with the Busch Group, an IT service company was acquired from the Busch Group in November 2022 for a purchase price of € 3.5 million (see also Note 6). All transactions

were carried out unchanged on the basis of customary market conditions.

As of December 31, 2022, the members of the Management Board and the Supervisory Board held a total of 6,281,852 shares in the Group (December 31, 2021: 6,212,967). This number also considers the shareholdings of Busch group which are also attributable to the Chairwoman of the Supervisory Board, Ms. Ayla Busch.

In 2022, the reimbursements from Pfeiffer Vacuum Trust e. V. amounted to € 2.9 million (2021: € 2.9 million). Contributions to Pfeiffer Vacuum Trust e. V. totaled € 2.5 million in 2022 (2021: € 2.1 million).

37. Events after the balance sheet date

Since the beginning of the 2023 fiscal year, there have not been any significant changes in the Company situation or the industry environment.

38. Personnel expenses

PERSONNEL EXPENSES		
	2022	2021
	in K€	in K€
Wages and salaries	-226,334	-196,546
Social security, pension and other benefit cost	-50,086	-42,724
Thereof for pensions	-22,106	-18,598
Total	-276,420	-239,270

39. Number of employees

The number of employees was as follows as at December 31, 2022, and 2021:

NUMBER OF EMPLOYEES		
	2022	2021
Annual average		
Male	3,039	2,760
Female	678	613
Total	3,717	3,373
Balance sheet date		
Male	3,206	2,809
Female	729	635
Total	3,935	3,444

The number of employees includes apprentices (December 31, 2022: 97, December 31, 2021: 85).

40. Management Board

In the 2022 fiscal year, the Management Board consisted of

- Dr. Britta Giesen,
Diploma in Industrial Engineering, Master of Engineering
(Chairwoman of the Management Board)

and

- Wolfgang Ehrk, Diploma in Industrial Engineering
(Chief Operations Officer).

In 2021, the Supervisory Board concluded on a system for the remuneration of the Management Board, which was approved by the Annual General Meeting on May 12, 2021 with a majority of 99.04 %. The Supervisory Board amended the system in 2022 and on May 19, 2022, the Annual General Meeting approved the amended system with a majority of 97.03%. According to this system, which the service contracts of the incumbent members of the Board of Management already largely correspond to, the remuneration of the Management Board consists of short-term fixed remuneration, variable remuneration and benefits in kind. In the case of variable remuneration, a distinction is made between an annual, short-term variable remuneration ("target bonus") and a long-term variable remuneration component that is based on a three-year assessment period (long-term incentive, or "LTI" for short). In order to determine the variable remuneration, individual targets related to the responsibilities of the members of the Management Board are set, which are supplemented by uniform financial targets for the Management Board, essentially based on EBIT or EBITDA. Target achievement is determined by the Supervisory Board after the end of the financial year. The target bonus is paid out after the Annual General Meeting

that decides on the approval of the respective financial year for which the remuneration is to be paid. The long-term variable remuneration is only paid out after the Annual General Meeting that decides on the last year of the three-year assessment period. Deviating from this, there are different due dates upon the termination of the contract.

The target bonus is a maximum of K€ 220 for Dr. Britta Giesen as CEO and a maximum of K€ 140 for Wolfgang Ehrk as a board member. The maximum amount of the LTI is K€ 230 for Dr. Britta Giesen as CEO and a maximum of K€ 160 for Wolfgang Ehrk as a board member. The amount of the LTI can also be increased by 25 % through an out-performance rule.

In addition, the service contracts with the members of the Management Board include a non-competition clause, malus and clawback rules, a severance payment cap and clauses for determining the maximum remuneration.

Total remuneration recorded in the income statement for the aforesaid members of the Management Board for fiscal 2022 totaled € 1.5 million (2021: € 1.3 million). € 0.7 million thereof related to short-term fixed remuneration (2021: € 0.7 million) and € 0.4 million to short-term variable benefits (2021: 0.3 million) and € 0.4 million to long-term variable benefits (2021: € 0.2 million). The total remuneration paid to members of the Executive Board in 2022 (including payments to Executive Board members who have since left) amounted to € 3.7 million (2021: € 1.8 million). Of this amount, € 0.7 million related to short-term fixed remuneration (2021: € 0.8 million), € 0.3 million to short-term variable remuneration (previous year: € 0.4 million) and € 0.0 million € on the long-term variable remuneration (previous year: € 0.6 million). € 0,1 million for retirement benefits (2021: € 0.0 million) and € 2.5 million to severance payments to former members of the Management Board.

With € 2.0 million the payment of this amount was recorded using a provision that had been recorded in previous years and with € 0.5 million the payment affected the 2022 results.

Open balances with the Board Members as of December 31, 2022, related to the provisions for the variable remuneration and totaled € 0.9 million (2021: € 0.7 million). In 2022, pension expenses totaled € 0.1 million (2021: € 0.1 million) and included defined contribution plans. As of December 31, 2022 and unchanged compared to the previous year, there were no pension benefits granted to active Board Members to be recorded under pensions provisions.

Benefits to former members of the Management Board (pensions) amounted to € 0.5 million (2021: € 0.4 million). As of December 31, 2022, the benefit obligation recorded for this group totaled € 4.9 million (2021: € 8.0 million). The net pension expenses for the year 2022 was € 0.9 million (2021: € 0.1 million) and included termination benefits totaling € 0.8 million this year.

41. Supervisory Board

Pursuant to § 96, Sub-Para. 1, § 101, Sub-Para. 1, German Stock Corporation Act ("AktG"), § 4, German One-Third Participation Act ("DrittelbG") of 2004, and § 9, Sub-Para. 1, Articles of Association and Bylaws, the Supervisory Board comprises four members elected by the Annual General Meeting and two members elected by the Group's employees.

Membership during the course of the year 2022 was as follows:

- Ayla Busch (Chairwoman)
Co-CEO of Busch SE, Maulburg
- Götz Timmerbeil (Vice Chairman),
Certified Public Accountant and Tax Advisor
- Timo Birkenstock (Employee Representative),
Development Engineer,
- Minja Lohrer,
Director,
- Henrik Newerla,
self-employed management consultant,
- Stefan Röser (Employee Representative),
Chairman of the Employee Council

The following members exercised further mandates. These are supervisory board mandates unless otherwise indicated:

- Götz Timmerbeil:
 - Richard Stein GmbH & Co. KG, Engelskirchen,
(Chairman of the Advisory Board)

For the members of the Supervisory Board a fixed short-term remuneration of K€ 445 (2021: K€ 454) was recorded in the income statement in the period under review. Beginning in 2021, when determining the amount of remunera-

tion work in Supervisory Board committees was also be taken into account. A distinction is now also made between a committee chair and simple committee membership. In accordance with the resolution of the Annual General Meeting on May 12, 2021, according to which the remuneration is only due after the end of the respective financial year, there were outstanding balances towards members of the Supervisory Board as of the December 31, 2022 in the amount of the total remuneration of K€ 445 (2021: K€ 454). The balance of the prior year was paid to the Supervisory Board members in 2022 with exactly this amount.

42. Exempting provision under § 264 Sub-Para. 3, German Commercial Code ("HGB")

Pfeiffer Vacuum GmbH, Asslar, Pfeiffer Vacuum Shared Services GmbH, Asslar and Goldfish IT GmbH, Maulburg, are included in the present consolidated financial statements of Pfeiffer Vacuum Technology AG. Accordingly, these companies have made use of the simplification provision under § 264, Sub-Para.3, German Commercial Code.

43. Audit fees for independent auditors

The expenses for services rendered by the auditor of the Consolidated Financial Statements recorded in the statements of income were as follows for fiscal 2022 and 2021:

AUDIT FEES FOR THE AUDITOR OF THE CONSOLIDATED FINANCIAL STATEMENTS

	2022	2021
	in K€	in K€
Fees resulting from:		
Audit services	-999	-939
Other certification and consulting services	-54	-45
Tax advisory services	-5	-6
Other services	—	—
Total	-1,058	-990

The total for the year 2022 comprised also fees to PricewaterhouseCoopers GmbH, Wirtschaftsprüfungsgesellschaft, Frankfurt am Main in the amount of K€ 514 for audit services, K€ 0 for tax advisory services, K€ 54 for other certification services and K€ 0 for other services (2021: K€ 479 for audit services, K€ 0 for tax advisory services, K€ 45 for other certification services and K€ 0 for other services). The audit of the Consolidated Financial Statements as of December 31, 2022, was carried out by PricewaterhouseCoopers GmbH, Wirtschaftsprüfungsgesellschaft, Frankfurt/Main. Other certification services related to the audit

of the Group's non-financial declaration. Other services rendered in 2021 related to advisory in connection with the enhancement of the compliance management system.

44. German Corporate Governance Code/ Declaration pursuant to § 161, German Stock Corporation Act ("AktG")

On November 4, 2022, the Management and Supervisory Boards of Pfeiffer Vacuum Technology AG submitted the declaration of compliance for the year 2022 pursuant to § 161 of the German Stock Corporation Act ("AktG"). The declaration of compliance has been made permanently accessible to shareholders on the Corporation's website.

45. Authorization for issuance of Consolidated Financial Statements

Through a resolution by the Management Board on March 6, 2023, the Consolidated Financial Statements were authorized for issuance.

Asslar, March 6, 2022

The Management Board

Dr. Britta Giesen *Wolfgang Ehrk*

Dr. Britta Giesen

Wolfgang Ehrk

Certification of Legal Representatives 2022

To the best of our knowledge, and in accordance with the applicable reporting principles, the Consolidated Financial Statements give a true and fair view of the assets, liabilities, financial position and profit or loss of the Group, and the Group management report includes a fair review of the development and performance of the business and the position of the Group, together with a description of the principal opportunities and risks associated with the expected development of the Group.

Aslar, March 6, 2023

The Management Board

Dr. Britta Giesen

Dr. Britta Giesen

Wolfgang Ehrk

Wolfgang Ehrk

Independent Auditor's Report

To Pfeiffer Vacuum Technology AG, Aßlar

REPORT ON THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS AND OF THE GROUP MANAGEMENT REPORT

Audit Opinions

We have audited the consolidated financial statements of Pfeiffer Vacuum Technology AG, Aßlar, and its subsidiaries (the Group), which comprise the consolidated statement of financial position as at 31 December 2022, and the consolidated statement of comprehensive income, consolidated statement of profit or loss, consolidated statement of changes in equity and consolidated statement of cash flows for the financial year from 1 January to 31 December 2022, and notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the group management report of Pfeiffer Vacuum Technology AG, which is combined with the Company's management report, including the remuneration report pursuant to § [Article] 162 AktG [Aktiengesetz: German Stock Corporation Act], including the related disclosures, included in section „Remuneration Report 2022“ for the financial year from 1 January to 31 December 2022.

In accordance with the German legal requirements, we have not audited the content of those parts of the group management report listed in the “Other Information” section of our auditor's report.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to § 315e Abs. [paragraph] 1 HGB [Handelsgesetzbuch: German Commercial Code] and, in compliance with these requirements, give a true and fair view of the assets, liabilities, and financial position of the Group as at 31 December 2022, and of its financial performance for the financial year from 1 January to 31 December 2022, and
- the accompanying group management report as a whole provides an appropriate view of the Group's position. In all material respects, this group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our audit opinion on the group management report does not cover the content of those parts of the group management report listed in the “Other Information” section of our auditor's report.

Pursuant to § 322 Abs. 3 Satz [sentence] 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the group management report.

Basis for the Audit Opinions

We conducted our audit of the consolidated financial statements and of the group management report in accordance with § 317 HGB and the EU Audit Regulation (No. 537/2014, referred to subsequently as “EU Audit Regulation”) in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the “Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Group Management Report” section of our auditor's report. We are independent of the group entities in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. In addition, in accordance with Article 10 (2) point (f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Article 5 (1) of the EU Audit Regulation. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions on the consolidated financial statements and on the group management report.

Key Audit Matters in the Audit of the Consolidated Financial Statements

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the financial year from 1 January to 31 December 2022. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our audit opinion thereon; we do not provide a separate audit opinion on these matters.

In our view, the matter of most significance in our audit was as follows:

1. Recoverability of goodwill

Our presentation of this key audit matter has been structured as follows:

1. Matter and issue
2. Audit approach and findings
3. Reference to further information

Hereinafter we present the key audit matter:

1. Recoverability of goodwill

1. In the Company's consolidated financial statements goodwill amounting in total to EUR 63.7 million (7.4 % of total assets) is reported under the Intangible assets balance sheet item. Goodwill is tested for impairment by the Company once a year or when there are indications of impairment to determine any possible need for write-downs. The impairment test is carried out at the level of the cash-generating units to which the relevant goodwill is allocated. The carrying amount of the relevant cash-generating unit, including goodwill, is compared with the corresponding recoverable amount in the context of the impairment test. The recoverable amount is generally determined using the value in use. The present value of the future cash flows from the respective cash-generating unit normally serves as the basis of valuation. Present values are calculated using discounted cash flow models. For this purpose, the adopted medium-term business plan of the Group forms the starting point which is extrapolated based on assumptions about long-term rates of growth. Expectations relating to future market developments and assumptions about the development of macroeconomic factors are also taken into account. The discount rate used is the weighted average cost of capital for the respective cash-generating unit. The impairment test determined that no write-downs were necessary.

The outcome of this valuation is dependent to a large extent on the estimates made by the executive directors with respect to the future cash inflows from the respective cash-generating unit, the discount rate used, the rate of growth and other assumptions, and is therefore subject to considerable uncertainty. Against this back-

ground and due to the complex nature of the valuation, this matter was of particular significance in the context of our audit.

2. As part of our audit, we assessed the methodology used for the purposes of performing the impairment test, among other things. After matching the future cash inflows used for the calculation against the adopted medium-term business plan of the Group, we assessed the appropriateness of the calculation, in particular by reconciling it with general and sector-specific market expectations. We discussed and examined supplementary adjustments to the medium-term business plan for the purposes of the impairment test with the members of the Company's staff responsible. In the knowledge that even relatively small changes in the discount rate applied can have a material impact on the value of the entity calculated in this way, we focused our testing in particular on the parameters used to determine the discount rate applied, and assessed the calculation model. In order to reflect the uncertainty inherent in the projections, we evaluated the sensitivity analyses performed by the Company. We verified that the necessary disclosures were made in the notes to the consolidated financial statements relating to cash-generating units for which a reasonably possible change in an assumption would result in the recoverable amount falling below the carrying amount of the cash-generating units including the allocated goodwill.

Overall, the valuation parameters and assumptions used by the executive directors are in line with our expectations and are also within the ranges considered by us to be reasonable.

3. The Company's disclosures on the balance sheet item Intangible assets are contained in section 11 of the notes to the consolidated financial statements.

Other Information

The executive directors are responsible for the other information. The other information comprises the following non-audited parts of the group management report, which we obtained prior to the date of our auditor's report:

- the statement on corporate governance pursuant to § 289f HGB and § 315d HGB included in section "Declaration on Corporate Governance" of the group management report
- the non-financial statement to comply with §§ 315b to 315c HGB included in section "Sustainability Report 2022" of the group management report
- the disclosures marked as unaudited in section "Internal Controll System (ICS)" of the group management report

The other information comprises further all remaining parts of the annual report, which are expected to be made available to us after the date of the auditor's report – excluding cross-references to external information – with the exception of the audited consolidated financial statements, the audited group management report and our auditor's report.

Our audit opinions on the consolidated financial statements and on the group management report do not cover the other information, and consequently we do not express an audit opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information mentioned above and, in so doing, to consider whether the other information

- is materially inconsistent with the consolidated financial statements, with the group management report disclosures audited in terms of content or with our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

Responsibilities of the Executive Directors and the Supervisory Board for the Consolidated Financial Statements and the Group Management Report

The executive directors are responsible for the preparation of the consolidated financial statements that comply, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to § 315e Abs. 1 HGB and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position, and financial performance of the Group. In addition, the executive directors are responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud (i.e., fraudulent financial reporting and misappropriation of assets) or error.

In preparing the consolidated financial statements, the executive directors are responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, the executive directors are responsible for the preparation of the group management report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, the executive directors are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a group management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the group management report.

The supervisory board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the group management report.

The executive directors and the supervisory board are further responsible for the preparation of the remuneration report, including the related disclosures, which is included in a separate section of the group management report and complies with the requirements of § 162 AktG. They are also responsible for such internal control as they determine is necessary to enable the preparation of a remuneration report, including the related disclosures, that is free from material misstatement, whether due to fraud or error.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Group Management Report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the group management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our audit opinions on the consolidated financial statements and on the group management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with § 317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstate-

ment. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this group management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements and of the group management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.
- Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an audit opinion on the effectiveness of these systems.

- Evaluate the appropriateness of accounting policies used by the executive directors and the reasonableness of estimates made by the executive directors and related disclosures.
- Conclude on the appropriateness of the executive directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the group management report or, if such disclosures are inadequate, to modify our respective audit opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to § 315e Abs. 1 HGB.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express audit opinions on the consolidated financial statements and on the group management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinions.
- Evaluate the consistency of the group management report with the consolidated financial statements, its conformity with German law, and the view of the Group's position it provides.
- Perform audit procedures on the prospective information presented by the executive directors in the group management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the executive directors as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate audit opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with the relevant independence requirements, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, actions taken to eliminate threats or safeguards applied.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

OTHER LEGAL AND REGULATORY REQUIREMENTS

Report on the Assurance on the Electronic Rendering of the Consolidated Financial Statements and the Group Management Report Prepared for Publication Purposes in Accordance with § 317 Abs. 3a HGB

Assurance Opinion

We have performed assurance work in accordance with § 317 Abs. 3a HGB to obtain reasonable assurance as to whether the rendering of the consolidated financial statements and the group management report (hereinafter the "ESEF documents") contained in the electronic file *Pfeiffer-Vacuum_Technology_AG_KA_KLB_ESEF-2022-12-31.zip* and prepared for publication purposes complies in all material respects with the requirements of § 328 Abs. 1 HGB for the electronic reporting format ("ESEF format"). In accordance with German legal requirements, this assurance work extends only to the conversion of the information contained in the consolidated financial statements and the group management report into the ESEF format and therefore relates neither to the information contained within these renderings nor to any other information contained in the electronic file identified above.

In our opinion, the rendering of the consolidated financial statements and the group management report contained in the electronic file identified above and prepared for publication purposes complies in all material respects with the requirements of § 328 Abs. 1 HGB for the electronic reporting format. Beyond this assurance opinion and our audit opinion on the accompanying consolidated financial statements and the accompanying group management

report for the financial year from 1 January to 31 December 2022 contained in the "Report on the Audit of the Consolidated Financial Statements and on the Group Management Report" above, we do not express any assurance opinion on the information contained within these renderings or on the other information contained in the electronic file identified above.

Basis for the Assurance Opinion

We conducted our assurance work on the rendering of the consolidated financial statements and the group management report contained in the electronic file identified above in accordance with § 317 Abs. 3a HGB and the IDW Assurance Standard: Assurance Work on the Electronic Rendering, of Financial Statements and Management Reports, Prepared for Publication Purposes in Accordance with § 317 Abs. 3a HGB (IDW AsS 410 (06.2022)) and the International Standard on Assurance Engagements 3000 (Revised). Our responsibility in accordance therewith is further described in the "Group Auditor's Responsibilities for the Assurance Work on the ESEF Documents" section. Our audit firm applies the IDW Standard on Quality Management 1: Requirements for Quality Management in the Audit Firm (IDW QS 1).

Responsibilities of the Executive Directors and the Supervisory Board for the ESEF Documents

The executive directors of the Company are responsible for the preparation of the ESEF documents including the electronic renderings of the consolidated financial statements and the group management report in accordance with § 328 Abs. 1 Satz 4 Nr. [number] 1 HGB and for the tagging of the consolidated financial statements in accordance with § 328 Abs. 1 Satz 4 Nr. 2 HGB.

In addition, the executive directors of the Company are responsible for such internal control as they have considered necessary to enable the preparation of ESEF documents that are free from material non-compliance with the requirements of § 328 Abs. 1 HGB for the electronic reporting format, whether due to fraud or error.

The supervisory board is responsible for overseeing the process for preparing the ESEF documents as part of the financial reporting process.

Group Auditor's Responsibilities for the Assurance Work on the ESEF Documents

Our objective is to obtain reasonable assurance about whether the ESEF documents are free from material non-compliance with the requirements of § 328 Abs. 1 HGB, whether due to fraud or error. We exercise professional judgment and maintain professional skepticism throughout the assurance work. We also:

- Identify and assess the risks of material non-compliance with the requirements of § 328 Abs. 1 HGB, whether due to fraud or error, design and perform assurance procedures responsive to those risks, and obtain assurance evidence that is sufficient and appropriate to provide a basis for our assurance opinion.
- Obtain an understanding of internal control relevant to the assurance work on the ESEF documents in order to design assurance procedures that are appropriate in the circumstances, but not for the purpose of expressing an assurance opinion on the effectiveness of these controls.

- Evaluate the technical validity of the ESEF documents, i.e., whether the electronic file containing the ESEF documents meets the requirements of the Delegated Regulation (EU) 2019/815 in the version in force at the date of the consolidated financial statements on the technical specification for this electronic file.
- Evaluate whether the ESEF documents provide an XHTML rendering with content equivalent to the audited consolidated financial statements and to the audited group management report.
- Evaluate whether the tagging of the ESEF documents with Inline XBRL technology (iXBRL) in accordance with the requirements of Articles 4 and 6 of the Delegated Regulation (EU) 2019/815, in the version in force at the date of the consolidated financial statements, enables an appropriate and complete machine-readable XBRL copy of the XHTML rendering.

Further Information pursuant to Article 10 of the EU Audit Regulation

We were elected as group auditor by the annual general meeting on 19 May 2022. We were engaged by the supervisory board on 16 November 2022. We have been the group auditor of the Pfeiffer Vacuum Technology AG, Aßlar, without interruption since the financial year 2018.

We declare that the audit opinions expressed in this auditor's report are consistent with the additional report to the audit committee pursuant to Article 11 of the EU Audit Regulation (long-form audit report).

REFERENCE TO AN OTHER MATTER – USE OF THE AUDITOR'S REPORT

Our auditor's report must always be read together with the audited consolidated financial statements and the audited group management report as well as the assured ESEF documents. The consolidated financial statements and the group management report converted to the ESEF format – including the versions to be filed in the company register – are merely electronic renderings of the audited consolidated financial statements and the audited group management report and do not take their place. In particular, the "Report on the Assurance on the Electronic Rendering of the Consolidated Financial Statements and the Group Management Report Prepared for Publication Purposes in Accordance with § 317 Abs. 3a HGB" and our assurance opinion contained therein are to be used solely together with the assured ESEF documents made available in electronic form.

GERMAN PUBLIC AUDITOR RESPONSIBLE FOR THE ENGAGEMENT

The German Public Auditor responsible for the engagement is Christian Kwasni.

Frankfurt am Main, March 6, 2023

PricewaterhouseCoopers GmbH
Wirtschaftsprüfungsgesellschaft

Christian Kwasni
Wirtschaftsprüfer
(German Public Auditor)

ppa. Samuel Artzt
Wirtschaftsprüfer
(German Public Auditor)

Independent Practitioner's Report on a Limited Assurance Engagement on Non-financial Reporting¹

To Pfeiffer Vacuum Technology AG, Aßlar

We have performed a limited assurance engagement on the non-financial group statement of Pfeiffer Vacuum Technology AG, Aßlar, (hereinafter the "Company") for the period from 1 January to 31 December 2022 (hereinafter the "Non-financial Group Statement") included in section "Sustainability Report 2022" of the group management report.

Not subject to our assurance engagement are the external sources of documentation or expert opinions mentioned in the Non-financial Group Statement, which are marked as unassured.

¹ PricewaterhouseCoopers GmbH has performed a limited assurance engagement on the German version of the non-financial group statement and issued an independent practitioner's report in German language, which is authoritative. The following text is a translation of the independent practitioner's report.

Responsibility of the Executive Directors

The executive directors of the Company are responsible for the preparation of the Non-financial Group Statement in accordance with §§ (Articles) 315c in conjunction with 289c to 289e HGB ("Handelsgesetzbuch": "German Commercial Code") and Article 8 of REGULATION (EU) 2020/852 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 June 2020 on establishing a framework to facilitate sustainable investment and amending Regulation (EU) 2019/2088 (hereinafter the "EU Taxonomy Regulation") and the Delegated Acts adopted thereunder, as well as for making their own interpretation of the wording and terms contained in the EU Taxonomy Regulation and the Delegated Acts adopted thereunder, as set out in section "EU-Taxonomy" of the Non-financial Group Statement.

This responsibility includes the selection and application of appropriate non-financial reporting methods and making assumptions and estimates about individual non-financial disclosures of the Group that are reasonable in the circumstances. Furthermore, the executive directors are responsible for such internal controls as the executive directors consider necessary to enable the preparation of a Non-financial Group Statement that is free from material misstatement whether due to fraud or error.

The EU Taxonomy Regulation and the Delegated Acts issued thereunder contain wording and terms that are still subject to considerable interpretation uncertainties and for which clarifications have not yet been published in every case. Therefore, the executive directors have disclosed their interpretation of the EU Taxonomy Regulation and the Delegated Acts adopted thereunder in section "EU-Taxonomy" of the Non-financial Group Statement. They are responsible for the defensibility of this interpretation. Due to the immanent

risk that indeterminate legal terms may be interpreted differently, the legal conformity of the interpretation is subject to uncertainties.

Independence and Quality Control of the Audit Firm

We have complied with the German professional provisions regarding independence as well as other ethical requirements.

Our audit firm applies the national legal requirements and professional standards – in particular the Professional Code for German Public Auditors and German Chartered Auditors ("Berufssatzung für Wirtschaftsprüfer und vereidigte Buchprüfer": "BS WP/vBP") as well as the Standard on Quality Control 1 published by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany; IDW): Requirements to quality control for audit firms (IDW Qualitätssicherungsstandard 1: Anforderungen an die Qualitätssicherung in der Wirtschaftsprüferpraxis- IDW QS 1) – and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Responsibility of the Assurance Practitioner

Our responsibility is to express a conclusion with limited assurance on the Non-financial Group Statement based on our assurance engagement.

We conducted our assurance engagement in accordance with International Standard on Assurance Engagements (ISAE) 3000 (Revised): Assurance Engagements other than Audits or Reviews of Historical Financial Information, issued by the IAASB. This Standard requires that we plan and per-

form the assurance engagement to obtain limited assurance about whether any matters have come to our attention that cause us to believe that the Company's Non-financial Group Statement, other than the external sources of documentation or expert opinions mentioned in the Non-financial Group Statement, are not prepared, in all material respects, in accordance with §§ 315c in conjunction with 289c to 289e HGB and the EU Taxonomy Regulation and the Delegated Acts issued thereunder as well as the interpretation by the executive directors disclosed in section "EU-Taxonomy" of the Non-financial Group Statement.

In a limited assurance engagement the procedures performed are less extensive than in a reasonable assurance engagement, and accordingly a substantially lower level of assurance is obtained. The selection of the assurance procedures is subject to the professional judgement of the assurance practitioner.

In the course of our assurance engagement, we have, amongst other things, performed the following assurance procedures and other activities:

- Gain an understanding of the structure of the Group's sustainability organization and stakeholder engagement
- Inquiries of the executive directors and relevant employees involved in the preparation of the Non-financial Group Statement about the preparation process, about the internal control system relating to this process and about disclosures in the Non-financial Group Statement

- Identification of likely risks of material misstatement in the Non-financial Group Statement
- Analytical procedures on selected disclosures in the Non-financial Group Statement
- Reconciliation of selected disclosures with the corresponding data in the consolidated financial statements and group management report
- Evaluation of the presentation of the Non-financial Group Statement
- Evaluation of the process to identify taxonomy-eligible and taxonomy-aligned economic activities and the corresponding disclosures in the Non-financial Group Statement
- Inquiries on the relevance of climate-risks

In determining the disclosures in accordance with Article 8 of the EU Taxonomy Regulation, the executive directors are required to interpret undefined legal terms. Due to the immanent risk that undefined legal terms may be interpreted differently, the legal conformity of their interpretation and, accordingly, our assurance engagement thereon are subject to uncertainties.

Assurance Opinion

Based on the assurance procedures performed and evidence obtained, nothing has come to our attention that causes us to believe that the Non-financial Group Statement of the Company for the period from 1 January to 31 December 2022 is not prepared, in all material respects, in accordance with §§ 315c in conjunction with 289c to 289e HGB and the EU Taxonomy Regulation and the Delegated Acts issued thereunder as well as the interpretation by the executive directors disclosed in section "EU-Taxonomy" of the Non-financial Group Statement. We do not express an assurance

opinion on the external sources of documentation or expert opinions mentioned in the Non-financial Group Statement, which are marked unassured.

Restriction of Use

We draw attention to the fact that the assurance engagement was conducted for the Company's purposes and that the report is intended solely to inform the Company about the result of the assurance engagement. Consequently, it may not be suitable for any other purpose than the aforementioned. Accordingly, the report is not intended to be used by third parties for making (financial) decisions based on it. Our responsibility is to the Company. We do not accept any responsibility to third parties. Our assurance opinion is not modified in this respect.

Frankfurt, March 6, 2023

PricewaterhouseCoopers GmbH
Wirtschaftsprüfungsgesellschaft

Nicolette Behncke
Wirtschaftsprüfer
[German public auditor]

Claudia Niendorf-Senger
Wirtschaftsprüferin
[German public auditor]

Report of the independent auditor on the formal audit of the remuneration report pursuant to § 162 Abs. 3 AktG

To Pfeiffer Vacuum Technology AG, Aßlar

Opinion

We have formally audited the remuneration report of the Pfeiffer Vacuum Technology AG, Aßlar, for the financial year from January 1 to December 31, 2022 to determine whether the disclosures pursuant to § [Article] 162 Abs. [paragraphs] 1 and 2 AktG [Aktengesetz: German Stock Corporation Act] have been made in the remuneration report. In accordance with § 162 Abs. 3 AktG, we have not audited the content of the remuneration report.

In our opinion, the information required by § 162 Abs. 1 and 2 AktG has been disclosed in all material respects in the accompanying remuneration report. Our opinion does not cover the content of the remuneration report.

Basis for the opinion

We conducted our formal audit of the remuneration report in accordance with § 162 Abs. 3 AktG and IDW [Institut der Wirtschaftsprüfer: Institute of Public Auditors in Germany] Auditing Standard: The formal audit of the remuneration report in accordance with § 162 Abs. 3 AktG (IDW AuS 870). Our responsibility under that provision and that standard is further described in the "Auditor's Responsibilities" section of our auditor's report. As an audit firm, we have complied with the requirements of the IDW Quality Assurance Standard: Requirements to quality control for audit firms [IDW Qualitätssicherungsstandard – IDW QS 1]. We have complied with the professional duties pursuant to the Professional Code for German Public Auditors and German Chartered Auditors [Berufssatzung für Wirtschaftsprüfer und vereidigte Buchprüfer – BSWP/vBP], including the requirements for independence.

Responsibility of the Management Board and the Supervisory Board

The management board and the supervisory board are responsible for the preparation of the remuneration report, including the related disclosures, that complies with the requirements of § 162 AktG. They are also responsible for such internal control as they determine is necessary to enable the preparation of a remuneration report, including the related disclosures, that is free from material misstatement, whether due to fraud or error.

Auditor's Responsibilities

Our objective is to obtain reasonable assurance about whether the information required by § 162 Abs. 1 and 2 AktG has been disclosed in all material respects in the remuneration report and to express an opinion thereon in an auditor's report.

We planned and performed our audit to determine, through comparison of the disclosures made in the remuneration report with the disclosures required by § 162 Abs. 1 and 2 AktG, the formal completeness of the remuneration report. In accordance with § 162 Abs 3 AktG, we have not audited the accuracy of the disclosures, the completeness of the content of the individual disclosures, or the appropriate presentation of the remuneration report.

Frankfurt am Main, March 6, 2023

PricewaterhouseCoopers GmbH
Wirtschaftsprüfungsgesellschaft

Christian Kwasni
Wirtschaftsprüfer
(German Public Auditor)

ppa. Samuel Artzt
Wirtschaftsprüfer
(German Public Auditor)

Consolidated Statements of Income

6-YEAR-OVERVIEW

	2022	2021	2020	2019	2018	2017
	in K €	in K €	in K €	in K €	in K €	in K €
Net sales	916,711	771,373	618,665	632,865	659,725	586,962
Cost of sales	-587,456	-490,965	-401,671	-416,995	-424,517	-376,945
Gross profit	329,255	280,408	216,994	215,870	235,208	210,017
Selling and marketing expenses	-95,070	-79,371	-70,795	-71,669	-68,371	-63,313
General and administrative expenses	-80,014	-61,448	-57,595	-52,293	-49,106	-48,976
Research and development expenses	-36,728	-34,230	-35,135	-29,620	-28,663	-27,763
Other operating income	19,637	11,395	9,349	7,768	11,302	10,345
Other operating expenses	-17,714	-23,661	-17,522	-4,904	-5,240	-8,924
Operating profit	119,366	93,093	45,296	65,152	95,130	71,386
Financial expenses	-854	-843	-902	-853	-727	-693
Financial income	340	251	147	217	208	347
Earnings before taxes	118,852	92,501	44,541	64,515	94,611	71,040
Income taxes	-32,500	-30,514	-12,950	-16,158	-25,732	-17,192
Net income	86,352	61,987	31,591	48,357	68,879	53,848
Earnings per share (in €)	8.75	6.28	3.20	4.90	6.98	5.46
Number of shares (weighted average)	9,867,659	9,867,659	9,867,659	9,867,659	9,867,659	9,867,659

Consolidated Statements of Income

6-YEAR-OVERVIEW

	2022	2021	2020	2019	2018	2017
	in K€	in K€	in K€	in K€	in K€	in K€
Profitability figures						
Gross margin	35.9 %	36.4 %	35.1 %	34.1 %	35.7 %	35.8 %
Operation profit margin	13.0 %	12.1 %	7.3 %	10.3 %	14.4 %	12.2 %
After-tax return on sales	9.4 %	8.0 %	5.1 %	7.6 %	10.4 %	9.2 %
Sales by region						
Asia	358,242	322,468	231,263	231,050	246,624	220,304
Europe	305,933	253,389	227,310	232,043	246,971	222,547
The Americas	252,323	195,414	159,991	169,664	165,942	143,808
Rest of world	213	102	101	108	188	303

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Glossary

Cash and cash equivalents

Indicates the cash and cash equivalents provided by the various capital flows and is the result of the cash flow accounting.

Cash flow from financing activities

Indicates the balance of cash and cash equivalents provided to or used by a company in connection with transactions involving shareholders' equity or outside capital.

Cash flow from investment activities

Indicates the balance of cash and cash equivalents that a company has invested or received in connection with the acquisition or sale of financial and tangible assets.

Cash flow from operating activities

Indicates the change in cash and cash equivalents resulting from operative business during the period under review.

CMRT

The Conflict Minerals Reporting Template is a standardized template from the Reporting Minerals Initiative that facilitates the exchange of information on conflict minerals in the supply chain

CO₂e

CO₂ equivalents (CO₂e) are a measurement unit for standardizing the climate impact of the different greenhouse gases. The largest portion of the greenhouse effect from companies that produce such gases, such as Pfeiffer Vacuum, is attributable to carbon dioxide (CO₂).

Corporate governance

The organizational structure and systems used in the way companies are managed and controlled.

CSR

Corporate Social Responsibility describes the economy's voluntary contribution to sustainable development, beyond what is legally required

Dividend yield

Indicates the ratio between a dividend and a defined share trading price – typically the year-end trading price. The dividend yield expresses the magnitude of the effective yield of the capital invested in shares.

Calculation:

$\text{Dividend} \div \text{Trading Price} \times 100$

Equity ratio

Describes the relationship between shareholders' equity and total capital. The more shareholders' equity that is available to a company, the better its credit rating will typically be.

Calculation:

$\text{Shareholders' Equity} \div \text{Balance Sheet Total} \times 100$

FAR

Fatal Accident Rate: Number of fatal accidents at work per 100 million working hours

Free float

The free float includes all shares that are not held by major shareholders; i.e. shares that can be acquired and traded by the general public. Under Deutsche Börse's definition, shares totaling over 5 percent of total equity or over 25 percent held by investment funds are not considered to be part of the free float.

Gross margin

Indicates the ratio between gross profit and net sales, enabling conclusions to be drawn regarding a company's production efficiency.

Calculation:

$\text{Gross Profit} \div \text{Net Sales} \times 100$

Greenhouse Gas Protocol

Comprehensive global standardized framework to measure and manage greenhouse gas emissions (GHG) from private and public sector operations, value chains and mitigation actions.

GRI

Independent, non-profit organization. Leading international standard setter for sustainability performance providing a Global comparable reporting and accounting framework.

Gross profit

The result of net sales less cost of sales.

Calculation:

Net Sales
– Cost of Sales

ICS

Internal Control System

ISO 14001

a standard for environmental management systems that is used and accepted worldwide

ISO 50001

a globally valid standard of the International Organization for Standardization (ISO), which is intended to support organizations and companies in the development of systematic energy management

LPG

Liquefied petroleum gas, also known as liquid gas

LTI

Lost Time Injuries: accident requiring at least one day of absence

LTIFR

Lost Time Injuries Frequency Rate: number of accidents per one million working hours

Market capitalization

Indicates the current market value of a company's shareholders' equity on the stock exchange.

Calculation:

Number of Shares Outstanding
x Trading Price

OHSAS 18001

is used in many countries as a certification basis for management systems for occupational health and safety (OHS)

Operating profit (EBIT)

Operating profit (earnings) before interest and taxes.

Calculation:

Net Income
± Financial Income / Expenses
± Income Taxes
± Gain / Loss from Financial Investment

Operating profit margin (EBIT margin)

The ratio between operating profit and net sales – the higher the ratio, the higher the profitability of operating activities.

Calculation:

Operating Profit (EBIT)
÷ Net Sales x 100

PV

Pfeiffer Vacuum

Research and development expense ratio

Is an expression of the relationship between the volume of research and development expenses and the volume of net income generated. Is thus considered to be an indicator of a company's willingness to invest in its own innovation activities.

Calculation:

R & D Expenses
÷ Net Income x 100

Return on capital employed (ROCE)

Ratio between operating profit and the total capital employed during a period.

Calculation:

EBIT
÷ (Net) Assets
+ Working Capital x 100

Return on equity

Provides information about the yield on the equity provided by shareholders.

Calculation:

Net Income
÷ Shareholders' Equity x 100

Whistleblowing system

Option to report potential violations of compliance guidelines

Working capital

A measure that indicates the surplus of a company's assets that are capable of being liquidated short term (within one year) over its short-term liabilities.

GRI Content Index

Statement of use: Pfeiffer Vacuum Technology AG has reported in accordance with the GRI Standards for the period January 1 – December 31, 2022.

GRI Reporting Standard: GRI 1 – Foundation 2021. GRI does not provide specific sector standards for Pfeiffer Vacuum.

GRI Standard	Disclosure	Reference	Additional Information	UNGC Principles page 95	UN SDGs page 96
General Disclosures					
GRI 2: General Disclosures 2021	2-1 Organizational details	The Pfeiffer Vacuum Group Corporate Profile p. 27–29			
	2-2 Entities included in the organization's sustainability reporting	The Pfeiffer Vacuum Group Corporate Profile p. 27–29 Group Structure p. 32–33 Notes to the Consolidated Financial Statements Notes to the scope of consolidation p. 151–152			
	2-3 Reporting period, frequency and contact point		Pfeiffer Vacuum Technology AG has reported in accordance with the GRI Standards for the period January 1 – December 31, 2022		
	2-4 Restatements of information		No restatements		
	2-5 External assurance	Independent Practitioner's Report on a Limited Assurance Engagement on Non-financial Reporting p. 196–197			
	2-6 Activities, value chain and other business relationships	The Pfeiffer Vacuum Group Corporate Profile p. 27–29 Sustainability Report 2.1 Sustainability Strategy p. 54–61 3. Our Value Creation p. 65–80			9

GRI Standard	Disclosure	Reference	Additional Information	UNGC Principles page 95	UN SDGs page 96
GRI 2: General Disclosures 2021	2-7 Employees	Sustainability Report 4. People, Culture and Values p. 80–88		6	5.5, 8.8
	2-8 Workers who are not employees	Sustainability Report 4. People, Culture and Values p. 80–88		6	
	2-9 Governance structure and composition	Report of the Supervisory Board on the 2022 Fiscal Year – Cooperation between Supervisory Board and Management Board p. 14 Sustainability Report 2.2 Responsible Corporate Governance p. 61–65 Declaration on Corporate Governance – Dual management system: Management Board and Supervisory Board p. 115–119 – Shareholders and Annual General Meeting p. 119			
	2-10 Nomination and selection of the highest governance body	Report of the Supervisory Board on the 2022 Fiscal Year p. 14–19 Sustainability Report 2.2 Responsible Corporate Governance p. 61–65 Declaration on Corporate Governance – Dual management system: Management Board and Supervisory Board p. 115–119			5.5
	2-11 Chair of the highest governance body	Sustainability Report 2.2 Responsible Corporate Governance p. 61–65 Declaration on Corporate Governance – Dual management system: Management Board and Supervisory Board p. 115–119			
	2-12 Role of the highest governance body in overseeing the management of impacts	Sustainability Report 2.2 Responsible Corporate Governance p. 61–65 Declaration on Corporate Governance – Dual management system: Management Board and Supervisory Board p. 115–119			
	2-13 Delegation of responsibility for managing impacts	Sustainability Report 2.2 Responsible Corporate Governance p. 61–65 Declaration on Corporate Governance – Dual management system: Management Board and Supervisory Board p. 115–119			
	2-14 Role of the highest governance body in sustainability reporting	Sustainability Report 2.2 Responsible Corporate Governance p. 61–65			

GRI Standard	Disclosure	Reference	Additional Information	UNGC Principles page 95	UN SDGs page 96
GRI 2: General Disclosures 2021	2-15 Conflicts of interest	Report of the Supervisory Board on the 2022 Fiscal Year p. 14–19 Sustainability Report 2.2 Responsible Corporate Governance p. 61–65 Notes to the Consolidated Financial Statements – Related party disclosures p. 183–185		10	
	2-16 Communication of critical concerns	Sustainability Report 2.2 Responsible Corporate Governance p. 61–65			
	2-17 Collective knowledge of the highest governance body	Sustainability Report 2.2 Responsible Corporate Governance p. 61–65 Declaration on Corporate Governance – Dual management system: Management Board and Supervisory Board p. 115–119			
	2-18 Evaluation of the performance of the highest governance body	Report of the Supervisory Board on the 2022 Fiscal Year – Annual and consolidated financial statements, audit of financial statements, dependent company report p. 18–19 Sustainability Report 2.2 Responsible Corporate Governance p. 61–65 Declaration on Corporate Governance – Collaboration between the Management and Supervisory Boards p. 119			
	2-19 Remuneration policies	Sustainability Report 4. People, Culture and Values p. 80–88 Remuneration Report p. 121–134		3	8.8
	2-20 Process to determine remuneration	Sustainability Report 4. People, Culture and Values p. 80–88 Remuneration Report p. 121–134		3	8.8
	2-21 Annual total compensation ratio	Sustainability Report 4. People, Culture and Values p. 80–88 Remuneration Report p. 121–134			
	2-22 Statement on sustainable development strategy	Interview with the Management Board p. 8–12 Sustainability Report 2.1 Sustainability Strategy p. 54–61			
	2-23 Policy commitments	Sustainability Report 2.2 Responsible Corporate Governance p. 61–65			

GRI Standard	Disclosure	Reference	Additional Information	UNGC Principles page 95	UN SDGs page 96
GRI 2: General Disclosures 2021	2-24 Embedding policy commitments	Sustainability Report 2.2 Responsible Corporate Governance p. 61–65			
	2-25 Processes to remediate negative impacts	Sustainability Report 2.2 Responsible Corporate Governance p. 61–65			
	2-26 Mechanisms for seeking advice and raising concerns	Sustainability Report 2.2 Responsible Corporate Governance p. 61–65			
	2-27 Compliance with laws and regulations	Sustainability Report 2.2 Responsible Corporate Governance p. 61–65		1, 2, 3, 4, 5, 6, 10	8.8, 16.5
	2-28 Membership associations		Membership in „Blue Competence“ initiative of VDMA: https://ir.pfeiffer-vacuum.com/English/csr/default.aspx		
	2-29 Approach to stakeholder engagement	Sustainability Report 2.1 Sustainability Strategy p. 54–61			
	2-30 Collective bargaining agreements	Sustainability Report 4. People, Culture and Values p. 80–88		3	8.8
Material Topics					
GRI 3: Material Topics 2021	3-1 Process to determine material topics	Sustainability Report 2.1 Sustainability Strategy p. 54–61			
	3-2 List of material topics	Sustainability Report 2.1 Sustainability Strategy p. 54–61			
Economic Performance					
GRI 3: Material Topics 2021	3-3 Management of material topics	Sustainability Report 2.2 Responsible Corporate Governance p. 61–65 3.7 Environmental Impacts p. 75–80 4. People, Culture and Values p. 80–88 5. Sustainability Indicators – EU Taxonomy p. 89–94		7, 9	

GRI Standard	Disclosure	Reference	Additional Information	UNGC Principles page 95	UN SDGs page 96
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	Business Report – Profitability, Financial Position, and Liquidity Profitability p. 48–50 Financial Position p. 50–51			
	201-2 Financial implications and other risks and opportunities due to climate change	Sustainability Report 2.2 Responsible Corporate Governance p. 61–65 3.7 Environmental Impacts p. 75–80		7	72, 73, 12.6
	201-3 Defined benefit plan obligations and other retirement plans	Consolidated Financial Statements – Pensions and similar obligations p. 167–171			
	201-4 Financial assistance received from government	Business Report – Profitability: Research and development expenses p. 42 Consolidated Financial Statements – Accounting and valuation methods: Research and development expenses p. 146 Government grants p. 150 – Other operating income and other operating expenses p. 154–155			
Market Presence					
GRI 3: Material Topics 2021	3-3 Management of material topics	Sustainability Report 4. People, Culture and Values p. 80–88		3, 6	8.8
GRI 202: Market Presence 2016	202-2 Proportion of senior management hired from the local community	Sustainability Report 4. People, Culture and Values p. 80–88			
Indirect Economic Impacts					
GRI 3: Material Topics 2021	3-3 Management of material topics	Sustainability Report 2. Sustainability at Pfeiffer Vacuum p. 54–65 3. Our Value Creation p. 65–80 4. People, Culture and Values – Our Role in Society p. 88		1, 2, 8	12.6
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	Sustainability Report 4. People, Culture and Values – Our Role in Society p. 88		1, 2, 8	

GRI Standard	Disclosure	Reference	Additional Information	UNGC Principles page 95	UN SDGs page 96
GRI 203: Indirect Economic Impacts 2016	203-2 Significant indirect economic impacts	Sustainability Report 2. Sustainability at Pfeiffer Vacuum p. 54–65 3. Our Value Creation p. 65–80 4. People, Culture and Values – Our Role in Society p. 88		1, 2, 8	12.6
Procurement Practices					
GRI 3: Material Topics 2021	3-3 Management of material topics	Sustainability Report 3.2 Procurement/Supply Chain Management p. 68–70		1, 2, 10	12.6
GRI 204: Procurement Practices 2016	204-1 Proportion of spending on local suppliers	Sustainability Report 3.2 Procurement/Supply Chain Management p. 68–70		1, 2, 10	12.6
Anti-Corruption					
GRI 3: Material Topics 2021	3-3 Management of material topics	Sustainability Report 2.2 Responsible Corporate Governance p. 61–65		10	12.6, 16.5
GRI 205: Anti-corruption 2016	205-1 Operations assessed for risks related to corruption	Sustainability Report 2.2 Responsible Corporate Governance p. 61–65		10	12.6, 16.5
	205-2 Communication and training about anti-corruption policies and procedures	Sustainability Report 2.2 Responsible Corporate Governance p. 61–65		10	12.6, 16.5
	205-3 Confirmed incidents of corruption and actions taken	Sustainability Report 2.2 Responsible Corporate Governance p. 61–65		10	12.6, 16.5
Anti-competitive Behavior					
GRI 3: Material Topics 2021	3-3 Management of material topics	Sustainability Report 2.2 Responsible Corporate Governance p. 61–65			
GRI 206: Anti-competitive Behavior 2016	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices		Any risks from litigation or claims are disclosed in the Notes to the Consolidated Financial Statements		
Tax					
GRI 3: Material Topics 2021	3-3 Management of material topics	Sustainability Report 2.2 Responsible Corporate Governance p. 61–65 4. People, Culture and Values – Our Role in Society p. 88			

GRI Standard	Disclosure	Reference	Additional Information	UNGC Principles page 95	UN SDGs page 96
GRI 207: Tax 2019	207-1 Approach to tax	Sustainability Report 2.2 Responsible Corporate Governance p. 61–65 4. People, Culture and Values – Our Role in Society p. 88	Fiscal transparency reporting: https://ir.pfeiffer-vacuum.com/English/governance/governance-documents/default.aspx		
	207-2 Tax governance, control, and risk management	Sustainability Report 2.2 Responsible Corporate Governance p. 61–65 4. People, Culture and Values – Our Role in Society p. 88	Fiscal transparency reporting: https://ir.pfeiffer-vacuum.com/English/governance/governance-documents/default.aspx		
	207-3 Stakeholder engagement and management of concerns related to tax	Sustainability Report 2.1 Sustainability Strategy p. 54–61	Fiscal transparency reporting: https://ir.pfeiffer-vacuum.com/English/governance/governance-documents/default.aspx		
	207-4 Country-by-country reporting		Fiscal transparency reporting: https://ir.pfeiffer-vacuum.com/English/governance/governance-documents/default.aspx		
Materials					
GRI 3: Material Topics 2021	3-3 Management of material topics	Sustainability Report 3. Our Value Creation p. 65–80 3.7 Environmental Impacts p. 75–80	ISO Certification: https://group.pfeiffer-vacuum.com/en/group/iso-certification/	7, 8, 9	8.4, 9.4, 12.2
	GRI 301: Materials 2016	301-1 Materials used by weight or volume	Sustainability Report 3.7 Environmental Impacts p. 75–80	7, 8	8.4, 12.2
		301-2 Recycled input materials used	Sustainability Report 3.7 Environmental Impacts p. 75–80		7
	301-3 Reclaimed products and their packaging materials	Sustainability Report 3.7 Environmental Impacts p. 75–80		7	8.4, 12.2
Energy					
GRI 3: Material Topics 2021	3-3 Management of material topics	Sustainability Report 3. Our Value Creation p. 65–80 3.7 Environmental Impacts p. 75–80	ISO Certification: https://group.pfeiffer-vacuum.com/en/group/iso-certification/	7, 8, 9	7.2, 7.3, 8.4, 9.4, 12.2

GRI Standard	Disclosure	Reference	Additional Information	UNGC Principles page 95	UN SDGs page 96
GRI 302: Energy 2016	302-1 Energy consumption within the organization	Sustainability Report 3.7 Environmental Impacts p. 75–80		7, 8	72, 73, 8.4, 12.2
	302-2 Energy consumption outside of the organization	Sustainability Report 3.7 Environmental Impacts p. 75–80	Until now, we have had data on Scope 3-emissions: the company's own fuel- and energy-related activities, theand energy-related activities that are notnot included in the categories of direct emissionsand indirect energy purchases, as well as business travel. In the future, we willfurther Scope 3 analyses and evaluations in the future.	7, 8	72, 73, 8.4, 12.2
	302-3 Energy intensity	Sustainability Report 3.7 Environmental Impacts p. 75–80		8	72, 73, 8.4, 12.2
	302-4 Reduction of energy consumption	Sustainability Report 3.7 Environmental Impacts p. 75–80		8, 9	72, 73, 8.4, 12.2
	302-5 Reductions in energy requirements of products and services	Sustainability Report 3.7 Environmental Impacts p. 75–80		7, 8, 9	72, 73, 8.4, 12.2
Water and Effluents					
GRI 3: Material Topics 2021	3-3 Management of material topics	Sustainability Report 3. Our Value Creation p. 65–80 3.7 Environmental Impacts p. 75–80	ISO Certification: https://group.pfeiffer-vacuum.com/en/group/iso-certification/	7, 8, 9	8.4, 9.4, 12.2
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	Sustainability Report 3.7 Environmental Impacts p. 75–80		7, 8	8.4, 12.2
	303-2 Management of water discharge-related impacts	Sustainability Report 3.7 Environmental Impacts p. 75–80		7, 8	8.4, 12.2
	303-3 Water withdrawal	Sustainability Report 3.7 Environmental Impacts p. 75–80		7, 8	8.4, 12.2
	303-4 Water discharge	Sustainability Report 3.7 Environmental Impacts p. 75–80	Until now, we do not have any data on the wastewater volumes of all sites. We take water from municipal fresh water pipes and discharge it into the communal disposal pipes.	7	8.4, 12.2
	303-5 Water consumption	Sustainability Report 3.7 Environmental Impacts p. 75–80		7	8.4, 12.2

GRI Standard	Disclosure	Reference	Additional Information	UNGC Principles page 95	UN SDGs page 96
Emissions					
GRI 3: Material Topics 2021	3-3 Management of material topics	Sustainability Report 3. Our Value Creation p. 65–80 3.7 Environmental Impacts p. 75–80	ISO Certification: https://group.pfeiffer-vacuum.com/en/group/iso-certification/	7, 8, 9	7.2, 7.3, 8.4, 9.4, 12.2
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	Sustainability Report 3.7 Environmental Impacts p. 75–80		7, 8	7.2, 7.3, 8.4, 12.2
	305-2 Energy indirect (Scope 2) GHG emissions	Sustainability Report 3.7 Environmental Impacts p. 75–80		7, 8	7.2, 7.3, 8.4, 12.2
	305-3 Other indirect (Scope 3) GHG emissions	Sustainability Report 3.7 Environmental Impacts p. 75–80		7, 8	7.2, 7.3, 8.4, 12.2
	305-4 GHG emissions intensity	Sustainability Report 3.7 Environmental Impacts p. 75–80		7, 8	7.2, 7.3, 8.4, 12.2
	305-5 Reduction of GHG emissions	Sustainability Report 3.7 Environmental Impacts p. 75–80		7, 8	7.2, 7.3, 8.4, 12.2
	305-6 Emissions of ozone-depleting substances (ODS)	Sustainability Report 3.7 Environmental Impacts p. 75–80		7, 8	7.2, 7.3, 8.4, 12.2
	305-7 Nitrogen oxides (NO _x), sulfur oxides (SO _x), and other significant air emissions	Sustainability Report 3.7 Environmental Impacts p. 75–80		7, 8	7.2, 7.3, 8.4, 12.2
Waste					
GRI 3: Material Topics 2021	3-3 Management of material topics	Sustainability Report 3.6 Recycling p. 74 3.7 Environmental Impacts p. 75–80	ISO-Zertifizierung: https://group.pfeiffer-vacuum.com/de/konzern/iso-zertifizierung	7, 8, 9	8.4, 9.4, 12.2
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	Sustainability Report 3.6 Recycling p. 74 3.7 Environmental Impacts p. 75–80		7, 8	8.4, 12.2
	306-2 Management of significant waste-related impacts	Sustainability Report 3.6 Recycling p. 74 3.7 Environmental Impacts p. 75–80		7, 8	8.4, 12.2
	306-3 Waste generated	Sustainability Report 3.6 Recycling p. 74 3.7 Environmental Impacts p. 75–80		7, 8	8.4, 12.2

GRI Standard	Disclosure	Reference	Additional Information	UNGC Principles page 95	UN SDGs page 96
GRI 306: Waste 2020	306-4 Waste diverted from disposal	Sustainability Report 3.6 Recycling p. 74 3.7 Environmental Impacts p. 75–80		7, 8	8.4, 12.2
	306-5 Waste directed to disposal	Sustainability Report 3.6 Recycling p. 74 3.7 Environmental Impacts p. 75–80			
Supplier Environmental Assessment					
GRI 3: Material Topics 2021	3-3 Management of material topics	Sustainability Report 3.2 Procurement/Supply Chain Management p. 68–70		7, 8, 9	8.4, 12.2, 12.6
GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	Sustainability Report 3.2 Procurement/Supply Chain Management p. 68–70		8	8.4, 12.2, 12.6
	308-2 Negative environmental impacts in the supply chain and actions taken	Sustainability Report 3.2 Procurement/Supply Chain Management p. 68–70		8	8.4, 12.2, 12.6
Employment					
GRI 3: Material Topics 2021	3-3 Management of material topics	Sustainability Report 4. People, Culture and Values p. 80–88		6	8.8
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	Sustainability Report 4. People, Culture and Values p. 80–88		6	8.8
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	Sustainability Report 4. People, Culture and Values p. 80–88	Career: https://group.pfeiffer-vacuum.com/en/careers/	6	8.8
	401-3 Parental leave	Sustainability Report 4. People, Culture and Values p. 80–88		6	8.8
Labor/Management Relations					
GRI 3: Material Topics 2021	3-3 Management of material topics	Sustainability Report 4. People, Culture and Values p. 80–88		3	8.8

GRI Standard	Disclosure	Reference	Additional Information	UNGC Principles page 95	UN SDGs page 96
GRI 402: Labor/Management Relations 2016	402-1 Minimum notice periods regarding operational changes	Sustainability Report 4. People, Culture and Values p. 80–88		3	8.8
Occupational Health and Safety					
GRI 3: Material Topics 2021	3-3 Management of material topics	Sustainability Report 4. People, Culture and Values – Occupational Health and Safety p. 86–88			8.8
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	Sustainability Report 4. People, Culture and Values – Occupational Health and Safety p. 86–88			8.8
	403-2 Hazard identification, risk assessment, and incident investigation	Sustainability Report 4. People, Culture and Values – Occupational Health and Safety p. 86–88			8.8
	403-3 Occupational health services	Sustainability Report 4. People, Culture and Values – Occupational Health and Safety p. 86–88			8.8
	403-4 Worker participation, consultation, and communication on occupational health and safety	Sustainability Report 4. People, Culture and Values – Occupational Health and Safety p. 86–88			8.8
	403-5 Worker training on occupational health and safety	Sustainability Report 4. People, Culture and Values – Occupational Health and Safety p. 86–88			8.8
	403-6 Promotion of worker health	Sustainability Report 4. People, Culture and Values – Occupational Health and Safety p. 86–88			8.8
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Sustainability Report 4. People, Culture and Values – Occupational Health and Safety p. 86–88			8.8

GRI Standard	Disclosure	Reference	Additional Information	UNGC Principles page 95	UN SDGs page 96
Occupational Health and Safety 2018	403-8 Workers covered by an occupational health and safety management system	Sustainability Report 4. People, Culture and Values – Occupational Health and Safety p. 86–88			8.8
	403-9 Work-related injuries	Sustainability Report 4. People, Culture and Values – Occupational Health and Safety p. 86–88			8.8
	403-10 Work-related ill health	Sustainability Report 4. People, Culture and Values – Occupational Health and Safety p. 86–88			8.8
Training and Education					
GRI 3: Material Topics 2021	3-3 Management of material topics	Sustainability Report 4. People, Culture and Values p. 80–88			
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	Sustainability Report 4. People, Culture and Values p. 80–88			
	404-2 Programs for upgrading employee skills and transition assistance programs	Sustainability Report 4. People, Culture and Values p. 80–88			
	404-3 Percentage of employees receiving regular performance and career development reviews	Sustainability Report 4. People, Culture and Values p. 80–88			
Diversity and Equal Opportunity					
GRI 3: Material Topics 2021	3-3 Management of material topics	Sustainability Report 4. People, Culture and Values p. 80–88		1, 2, 6	5.5
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	Sustainability Report 4. People, Culture and Values p. 80–88		6	5.5
	405-2 Ratio of basic salary and remuneration of women to men	Sustainability Report 4. People, Culture and Values p. 80–88		6	5.5

GRI Standard	Disclosure	Reference	Additional Information	UNGC Principles page 95	UN SDGs page 96
Non-discrimination					
GRI 3: Material Topics 2021	3-3 Management of material topics	Sustainability Report 4. People, Culture and Values p. 80–88		1, 2, 6	5.5
GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	Sustainability Report 4. People, Culture and Values p. 80–88		1, 2, 6	5.5
Freedom of Association and collective Bargaining					
GRI 3: Material Topics 2021	3-3 Management of material topics	Sustainability Report 3.2 Procurement/Supply Chain Management p. 68–70		3	8.8
GRI 407: Freedom of Association and collective Bargaining 2016	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Sustainability Report 3.2 Procurement/Supply Chain Management p. 68–70	Code of Conduct and international guidelines: https://ir.pfeiffer-vacuum.com/English/governance/governance-documents/default.aspx Code of Conduct and Supplier Code of Conduct: https://group.pfeiffer-vacuum.com/en/group/compliance/our-culture/	3	8.8
Child Labor					
GRI 3: Material Topics 2021	3-3 Management of material topics	Sustainability Report 3.2 Procurement/Supply Chain Management p. 68–70		1, 2, 5	8.8
GRI 408: Child Labor 2016	408-1 Operations and suppliers at significant risk for incidents of child labor	Sustainability Report 3.2 Procurement/Supply Chain Management p. 68–70		5	8.8
Forced or compulsory Labor					
GRI 3: Material Topics 2021	3-3 Management of material topics	Sustainability Report 3.2 Procurement/Supply Chain Management p. 68–70		1, 2, 4	8.8
GRI 409: Forced or compulsory Labor 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	Sustainability Report 3.2 Procurement/Supply Chain Management p. 68–70		1, 2, 4	8.8

GRI Standard	Disclosure	Reference	Additional Information	UNGC Principles page 95	UN SDGs page 96
Rights of indigenous Peoples					
GRI 3: Material Topics 2021	3-3 Management of material topics	Sustainability Report 3.2 Procurement/Supply Chain Management p. 68–70		1, 2	
GRI 411: Rights of indigenous Peoples 2016	411-1 Incidents of violations involving rights of indigenous peoples	Sustainability Report 3.2 Procurement/Supply Chain Management p. 68–70	There were no reports of incidents during the reporting period.	1, 2	
Local Communities					
GRI 3: Material Topics 2021	3-3 Management of material topics	Sustainability Report 2.2 Responsible Corporate Governance p. 61–65 4. People, Culture and Values – Our Role in Society p. 88		1, 2, 8	
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	Sustainability Report 2.2 Responsible Corporate Governance p. 61–65 4. People, Culture and Values – Our Role in Society p. 88		1, 2, 8	
	413-2 Operations with significant actual and potential negative impacts on local communities	Sustainability Report 2.2 Responsible Corporate Governance p. 61–65 4. People, Culture and Values – Our Role in Society p. 88		1, 2, 8	
Supplier social Assessment					
GRI 3: Material Topics 2021	3-3 Management of material topics	Sustainability Report 3.2 Procurement/Supply Chain Management p. 68–70		1, 2, 4, 5, 6	12.6, 16.5
GRI 414: Supplier social Assessment 2016	414-1 New suppliers that were screened using social criteria	Sustainability Report 3.2 Procurement/Supply Chain Management p. 68–70		1, 2, 4, 5, 6	12.6, 16.5
	414-2 Negative social impacts in the supply chain and actions taken	Sustainability Report 3.2 Procurement/Supply Chain Management p. 68–70		1, 2, 4, 5, 6	12.6, 16.5

GRI Standard	Disclosure	Reference	Additional Information	UNGC Principles page 95	UN SDGs page 96
Public Policy					
GRI 3: Material Topics 2021	3-3 Management of material topics	Sustainability Report 2.2 Responsible Corporate Governance p. 61–65 4. People, Culture and Values – Our Role in Society p. 88			
GRI 415: Public Policy 2016	415-1 Political contributions	Sustainability Report 4. People, Culture and Values – Our Role in Society p. 88			
Customer Health and Safety					
GRI 3: Material Topics 2021	3-3 Management of material topics	Sustainability Report 3.3 Production p. 71–73 4. People, Culture and Values p. 80–88			8.8
GRI 416: Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	Sustainability Report 3.3 Production p. 71–73			8.8
Customer Privacy					
GRI 3: Material Topics 2021	3-3 Management of material topics	Sustainability Report 2.2 Responsible Corporate Governance p. 61–65 3.3 Production p. 71–73			
GRI 418: Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	Sustainability Report 2.2 Responsible Corporate Governance p. 61–65 3.3 Production p. 71–73	Any risks from litigation or claims are disclosed in the Notes to the Consolidated Financial Statements.		

Financial Calendar 2023

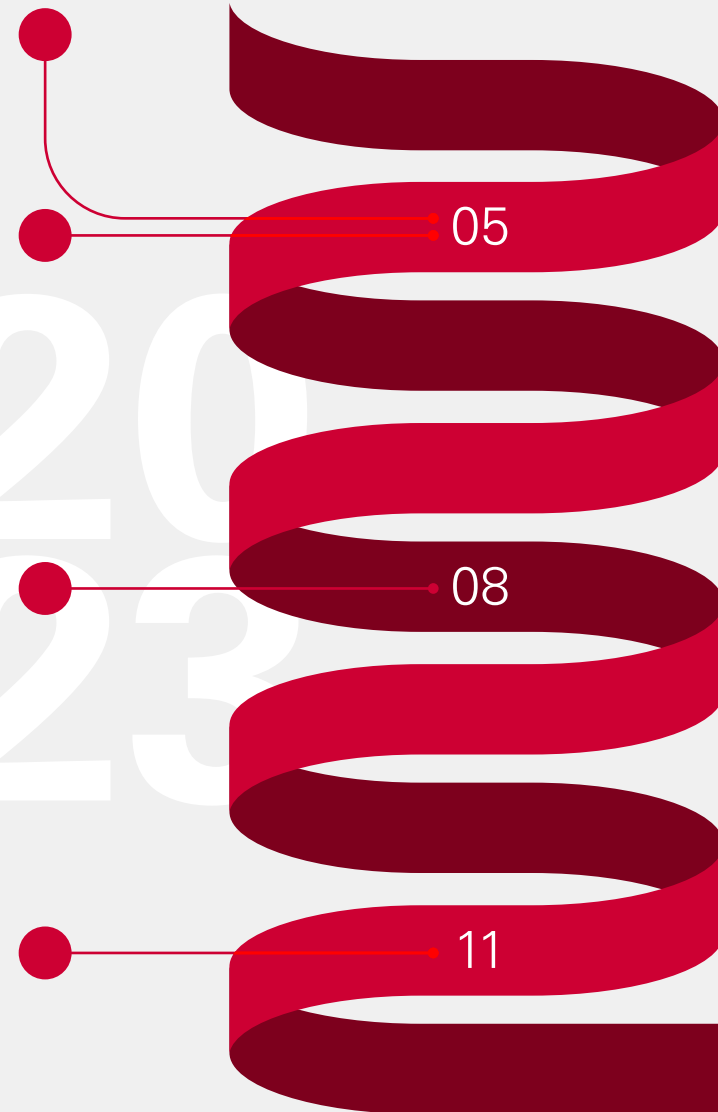
Tue., May 02
Annual General Meeting
2023

Thu., May 11
Financial Results
Q1 2023

Tue., August 01
Financial Results
H1 2022

Thu., November 02
Financial Results
Q3 2023

2023



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