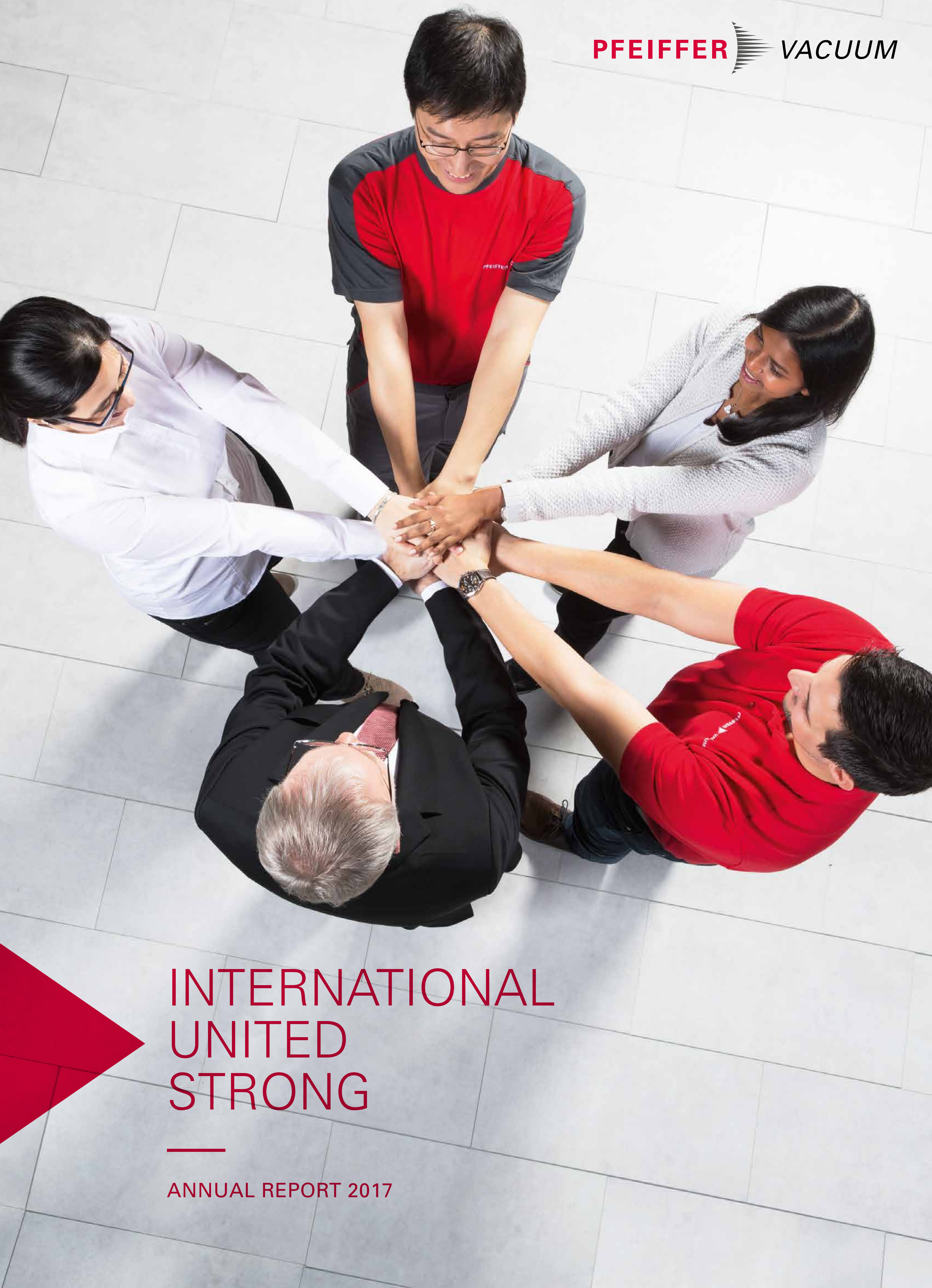

INTERNATIONAL UNITED STRONG

ANNUAL REPORT 2017

THE THEME OF THIS YEAR'S ANNUAL REPORT IS NOT ONLY SYMBOLIC OF PFEIFFER VACUUM'S 2017 BUSINESS YEAR. THE ATTRIBUTES NAMED IN THIS MOTTO ALSO FORM THE BASIS OF OUR COMPANY'S SUCCESS. CLOSE COOPERATION AMONG OUR SUBSIDIARIES ALL AROUND THE WORLD, JOINT EXECUTION OF INTERNATIONAL PROJECTS, AND THE POWERFUL TEAM SPIRIT OF OUR 2,945 EMPLOYEES HAVE ALL LED US TO THE BEST EARNINGS RESULTS IN THE HISTORY OF PFEIFFER VACUUM.

KEY FIGURES

		2017	2016	Change
Sales and profit				
Total sales	K€	586,962	474,244	23.8 %
Germany	K€	98,715	78,254	26.1 %
Other countries	K€	488,247	395,990	23.3 %
Operating profit	K€	71,386	67,976	5.0 %
Net income	K€	53,848	47,032	14.5 %
Return on sales	%	9.2	9.9	– 0.7 Pp
Operating cash flow	K€	71,397	63,616	12.2 %
Balance sheet				
Total shareholders' equity and liabilities	K€	553,361	459,322	20.5 %
Cash and cash equivalents	K€	97,402	110,032	– 11.5 %
Shareholders' equity	K€	320,937	315,574	1.7 %
Equity ratio	%	58.0	68.7	– 10.7 Pp
Return on equity	%	16.8	14.9	1.9 Pp
Capital expenditures	K€	27,678	18,018	53.6 %
Workforce				
Workforce (average)		2,809	2,385	17.8 %
Germany		935	892	4.8 %
Other countries		1,874	1,493	25.5 %
Personnel costs	K€	190,970	157,618	21.2 %
Per employee	K€	68	66	3.0 %
Sales per employee	K€	209	199	5.0 %
Per share				
Earnings	€	5.46	4.77	14.5 %
Dividend	€	2.00 [1]	3.60	– 44.4 %

[1] Subject to the consent of 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 that stands for innovative solutions, high technology and dependable products, along with first-class service. For more than 125 years we have been setting standards in vacuum technology with these attributes. One very special milestone was the invention of the turbopump at our Company more than 50 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 right through to complex vacuum systems. And quality always plays a key role in this connection: Products from Pfeiffer Vacuum are constantly being optimized through close collaboration with customers from a wide 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!

- **Headquarters:** Asslar, Germany
- **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:** Asslar, Germany; Göttingen, Germany; Annecy, France; Asan, Republic of Korea; Cluj, Romania; Indianapolis, USA; Yreka, USA; Ho Chi Minh City, Vietnam
- **Workforce worldwide:** 2,945 people

INTERNATIONAL UNITED STRONG

ANNUAL REPORT 2017

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GLOBAL ADVANTAGE: INTERVIEW WITH THE MANAGEMENT BOARD

For years, Pfeiffer Vacuum has belonged to the top players in the sector and continues to reach milestones with its technological impulses. The Company's international orientation is a prerequisite for this success. In an interview, the new Management Board will discuss the Company's future strategic orientation.

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INTERNATIONAL GROWTH

In our globalized world, international cooperation and a worldwide presence are prerequisites for economic growth. For this reason, Pfeiffer Vacuum carried out trailblazing acquisitions in 2017, further strengthening its position with its takeover of three companies in strategically significant business areas.

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WORLDWIDE COLLABORATION

Pfeiffer Vacuum's products are in use all around the world. In more than 60 countries, our vacuum experts support the customers on site. The global corporation between the international subsidiaries guarantee the high-quality performance of the Company.

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STRONG ROOTS

Pfeiffer Vacuum is closely linked with the regions around its two main company locations, Asslar in Central Hesse and Annecy in Southern France. The company fosters close friendships with partner companies, associations and clubs in the neighborhood and encourages the exchange between the employees of its two largest locations.

LETTER FROM THE CEO

Dear shareholders,

We at Pfeiffer Vacuum Technology AG have a very eventful year behind us. Despite all the internal and external challenges we were facing, we were able to bring 2017 to a close with very good results.

By that I do not just mean the financial figures, which certainly continued the positive trend from 2016 and which attest to the Group's stable growth: for example, we experienced an increase in sales of more than 23 percent compared to the same period last year, reaching a record high of € 587 million.

More than that, I mean those results that cannot be represented in a fact sheet table. Together, we were able to ride out the turbulence that had built up in connection with the takeover bids from the Busch Group. We have a very good feeling about the new, long-term anchor shareholder and are very optimistic about the future. Prospectively, I would like to fully exploit the potential of our Group companies in future.

The change in leadership all went smoothly. After Mr Bender's departure, Pfeiffer Vacuum was able to find experienced successors in Ms Benedikt as the new CFO, and myself as CEO. I have worked in the vacuum industry for the last 30 years, the last seven being spent at Pfeiffer Vacuum in various capacities, including heading the Business Unit Semiconductor and Coating.

I am full of pride and gratitude to have been given the opportunity to lead Pfeiffer Vacuum towards a successful future. I am looking forward to taking on this challenge, which will consist of consolidating "our Pfeiffer Vacuum's" position in the industry on a national and international level in the years ahead. It is important to me that each and every employee lives and embodies the values that our Company represents and that make us unique. For my fellow Board members and me, this means the passion for cutting-edge technology, customer satisfaction, team spirit, sustainability and ethical practices.

I am confident that Pfeiffer Vacuum is capable of taking its place as the international market leader in vacuum technology. As our 2017 figures show, we are already off to a good start. This is further underpinned by the end-of-year balance of over € 127 million on the books – a 76 percent increase compared to the previous year. We could pat ourselves on the back and simply carry on "business as usual", but that is not my approach.

While I believe our current growth strategy is working, my fellow board members and I are in full agreement that some fine-tuning is necessary. And we want to pick up the pace.

In my view, global developments in the fields of digitalization, alternative energy and biotechnology are among the most significant drivers of growth for our market. The digital revolution has created an enormous demand for memory chips, processors as well as displays for computers and mobile phones. Without vacuum and testing technology – particularly from our Company – production of these items would simply not be possible. If we are to keep up with the changing market, we have to be proactive. My colleagues from the Management Board and I have therefore devised a strategic program consisting of four main points. We aim to implement this strategy quickly.

Firstly, we must expand our production capacity, which we have already begun doing. Secondly, we will start to invest more in R&D to secure a better footing in terms of innovation. Thirdly, we are planning further investments in the expansion of our international presence with the 'Global Footprint' and 'Global Sourcing' programs. The focus here will lie on the Asian markets – particularly China – which are becoming increasingly significant for us. Fourthly, the rapid development in the field of digitalization should not only be embraced for new orders, but also to ensure that our Company is equipped with state-of-the-art IT. This includes integrating the new Industry 4.0 standards into our daily processes. It is my goal to advance the automation of all workflows and processes in each business unit. The buzzwords of today are among others 'augmented reality', the handling of 'big data' and the introduction of 'cobots' – industrial robots that work side by side with people. It is imperative to keep up with these trends.

However, we can only realize these ambitions by placing our employees at the center of our growth strategy. One step we are taking is integrating all colleagues at each of our locations and offering them a range of professional development opportunities. Our goal is to utilize the most modern collaborative work methods as well as global learning platforms.

All these aspects create the foundation for the efficiency, performance and ultimately for the quality we have come to expect of Pfeiffer Vacuum products and services.

Dear Shareholders, on behalf of the Management Board, I would like to thank you for the trust you have placed in us this last year. We hope to have you with us at our side in 2018 as we continue along the path towards further sustainable growth.

Dr. Eric Taberlet,
CEO of Pfeiffer Vacuum Technology AG

Helmut Bernhardt
Dr. Filippo Th. Beck
Manfred Gath
Ayla Busch, Chairwoman
Götz Timmerbeil
(from left to right).

The picture does not show Henrik Newerla, who was appointed as new member of the Supervisory Board with effect from March 19, 2018.

REPORT OF THE SUPERVISORY BOARD

Dear Shareholders,

In fiscal 2017, the Supervisory Board of Pfeiffer Vacuum Technology AG correctly fullfilled all the duties vested in it by law, the Articles of Association and the Supervisory Board's rules of procedure. It monitored the work of the Management Board within the scope of its legal duties, accompanied and advised on the strategic further development of the Company and satisfied itself about the legality and expediency of the managerial work on the basis of the Management Board's reports. Furthermore, the Supervisory Board continuously monitored the organization of the Company and Corporate Group and the cost-effectiveness of corporate management. In addition, a regular exchange of information took place between the Supervisory Board and/or the Supervisory Board chairman and the Management Board.

Cooperation between Supervisory Board and Management Board

In the view of the Supervisory Board, the Management Board informed the Supervisory Board and/or the Supervisory Board chairman regularly, comprehensively and in a timely manner about the competitive environment, planned business policy and all strategic and crucial operational decisions in the course of the past fiscal year. In the same way, the Management Board discussed key financial figures with the Supervisory Board as a basis for evaluating the economic situation of the Company.

The Management Board reported during Supervisory Board meetings in oral or written form and replied within this setting to questions from the Supervisory Board. Outside of the meetings, the exchange of information with the Supervisory Board was also ensured with regular reports on the economic development of the Company and the Corporate Group and on the key occurrences within Pfeiffer Vacuum Technology AG. The Supervisory Board is satisfied that Management Board reporting met the statutory and Supervisory Board's requirements.

In fiscal 2017, business transactions requiring approval were decided by the Supervisory Board and, under certain conditions, also by individual committees, after these had adequately reviewed and discussed the issues with the Management Board.

Personnel changes in Supervisory Board and Management Board

With effect from October 25, 2017, both Dr. Michael Oltmanns (up until then chairman of the Supervisory Board) and Dr. Wolfgang Lust stepped down from the Supervisory Board by resigning from their office.

Ayla Busch was appointed as new member of the Supervisory Board with effect from October 26, 2017 by the Local Court of Wetzlar and was then elected as chairwoman of the Supervisory Board by the members.

With effect from March 19, 2018, Henrik Newerla was appointed as new member of the Supervisory Board by the Local Court of Wetzlar.

In the Management Board, the previous Chief Executive Officer Manfred Bender was recalled for good cause with effect from November 27, 2017. The Supervisory Board appointed Dr. Eric Taberlet as his successor with effect from November 27, 2017. Furthermore, the Supervisory Board appointed Dr. Ulrich von Hülsen with effect from August 1, 2017 and Nathalie Benedikt with effect from November 27, 2017 to the Management Board. Nathalie Benedikt assumes the role of Chief Financial Officer (CFO). This appointment fulfills the requirements of good corporate governance with regard to the exercise of departmental responsibility for finances in a role that is separate from the chairmanship of the Management Board.

With the appointment of Ayla Busch on October 26, 2017, this was the first time that a woman was appointed to the Supervisory Board and, moreover, was elected as Supervisory Board chairwoman. Until March 19, 2018, the Supervisory Board recorded a 20 % proportion of women; from this date on, the percentage is 16.7 %. On the Management Board of the Company, with the appointment of Nathalie Benedikt, the proportion of women is 25 % as of November 27, 2017.

Supervisory Board meetings and issues of Supervisory Board work

During 2017, the Supervisory Board informed itself about the current situation of the Company and the Corporate Group in a total of 20 meetings and discussed this in detail with the Management Board.

The meetings on January 9, February 14, March 22, May 12, May 23, June 21 and August 1, 2017 focused on the corporate acquisitions made in Europe and the U.S. in the year under review. Other issues were the new construction of the production location in Cluj, Romania, and the overreaching global production strategy – Global Footprint. The focus of discussions during the first half-year were the acquisition of additional equity in Dreebit GmbH in Dresden and the acquisitions of Advanced Test Concepts, Inc. in Indianapolis, Indiana, USA, as well as of Nor-Cal Products Holdings, Inc. in Yreka, California, USA. A total of five of these seven meetings attended by all members of the Supervisory Board were held in the form of a telephone conference.

At the meetings held on January 26, February 24, March 6, March 31, April 3, April 11, April 13, April 19 and April 25, 2017, the Supervisory Board dealt with the voluntary takeover bids from Pangea GmbH and particularly focused on evaluating the bid documents, the wording of the responses and the fairness opinions of the financial advisors engaged. All of these meetings were held in the form of a telephone conference. All members of the Supervisory Board were present at these nine meetings.

During the telephone conference meetings held on May 26 and September 15, 2017, the Supervisory Board addressed the issue of extending the term of office of the Management Board member Dr. Matthias Wiemer and the contract of employment of the former Chief Executive Officer Manfred Bender. Here, also, all members attended the meetings.

At the meetings on March 22, May 23, August 1, October 26 and November 27, 2017, the Board dealt with the general course of business, financial results and the strategic orientation of the Company, measures for continuing to boost profitability and efficiency of the overall company and evaluation of analyses of the consequences in connection with the application of IFRS 15 from the year 2018. All members attended these meetings.

At the meeting on October 26, 2017, the Supervisory Board also dealt with budget planning for the year 2018 and the Management Board's schedule of responsibilities. The final consideration of the Management Board's schedule of responsibilities took place in the meeting on November 27, 2017.

At the meeting on October 26, 2017, the Supervisory Board also deliberated on the Compliance Management System and the Compliance Organization of the Company. It was decided to review the Compliance Management System by an independent appraiser. Due to the results, an enhancement and adaptation of the Compliance Management System is currently taking place with external support.

Supervisory Board Committees

The Supervisory Board in its composition up to and including October 25, 2017 established four committees:

- A Management Board Committee,
- An Administration Committee,
- A Nomination Committee and
- An Audit Committee.

The Supervisory Board also decided in its meeting on October 26, 2017 to dissolve the Administration Committee in order to strengthen teamwork within the Supervisory Board. Measures and business that are subject to approval will in future require the consent of all members of the Board.

After the Supervisory Board members Dr. Michael Oltmanns and Dr. Wolfgang Lust resigned on October 25, 2017 and Ayla Busch joined the Supervisory Board on October 26, 2017, special elections were held, with the result that the composition of the remaining committees from October 26, 2017 is as follows:

Management Board Committee
- Ayla Busch (chairwoman)
- Filippo Th. Beck
- Götz Timmerbeil

Nomination Committee
- Ayla Busch (chairwoman)
- Filippo Th. Beck
- Götz Timmerbeil

Audit Committee
- Götz Timmerbeil (chairman)
- Filippo Th. Beck
- Ayla Busch

The Management Board Committee held its first meeting on May 22, 2017. In this meeting, the Supervisory Board focused principally on the extension of contract and re-appointment of Dr. Matthias Wiemer as well as the enlargement of the Management Board midyear to include Dr. Ulrich von Hülsen. In its meeting on November 26, 2017, the Management Board committee dealt with the preparation of the overall Supervisory Board meeting held on November 27, 2017 in which, among other things, the former Chief Executive Officer Manfred Bender was recalled for good cause. All meetings of the Management Board Committee were attended by every member.

The first meeting of the Administration Committee in the year under review was held on April 22, 2017. At this meeting, the joint statement of the Management Board and Supervisory Board concerning the voluntary takeover bid by Pangea GmbH was discussed in detail, in consultation with the attorney Dr. Thomas Zwissler from the law firm Zirngibl Rechtsanwälte. At the meeting on May 22, 2017, the Administration Committee dealt with the consulting services provided for the Company since the year 2010 by the law firm Menold Bezler (of which the former Supervisory Board chairman Dr. Michael Oltmanns is a partner). All members took part in all meetings of the Administration Committee.

The review of the individual Annual Financial Statements and the Consolidated Financial Statements for the fiscal year 2016 took place in the Audit Committee meeting on March 22, 2017. A further meeting was held on November 27, 2017. The Audit Committee was in regular contact with the auditor and discussed and decided upon the audit procedure, the focus of the audit and any special questions about the audit with the independent auditor. The Audit Committee consulted intensively with the auditor in connection with the explanations on the legality, regularity and expediency of the statements and the critical assessment of the concept and risks. All members attended all meetings of the Audit Committee.

No meetings of the Nomination Committee were held in the fiscal year 2017.

Corporate Governance

The Supervisory Board recognizes the principles of good governance and also addressed this issue in fiscal 2017. An essential basis for this is the extensive recognition of the recommendations of the German Corporate Governance Code (GCGC) based on the version of February 7, 2017. This does not preclude deviating from the GCGC recommendations in individual justified cases. As a listed company, Pfeiffer Vacuum Technology AG is subject to the obligation under § 161 (1) of the German Stock Corporation Act ("AktG") to declare the extent to which 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 to justify deviations from recommendations (statement of compliance). The Management Board and the Supervisory Board defined a statement of compliance on October 26, 2017 (amended with Supervisory Board resolution of January 24, 2018), which can be accessed on the Company's website. At the same time, the efficiency audit of the Supervisory Board was conducted diligently on the basis of extended criteria, compared to previous years, in the meeting held on October 26, 2017.

The members of the Supervisory Board of Pfeiffer Vacuum Technology AG are obliged to disclose to the Supervisory Board any possible conflicts of interest, in particular those which could arise through consulting or executive functions at customers, suppliers, lenders or other third parties. With the exception of commissioning the law firm Menold Bezler in connection with the takeover bid by Pangea GmbH, of which company the former Supervisory Board chairman Dr. Michael Oltmanns is a partner, there were no indications of actual or potential conflicts of interest in the fiscal year 2017.

Audit of Annual and Consolidated Financial Statements

In accordance with the resolution of the Annual General Meeting on May 23, 2017, Ernst & Young GmbH, Wirtschaftsprüfungsgesellschaft, Eschborn, Germany, was commissioned to audit the Annual Financial Statements of the Company and the Company's Consolidated Financial Statements, with the latter being prepared in accordance with International Financial Reporting Standards ("IFRS"), as well as the financial statements of the Company's subsidiaries where prescribed by law. Pursuant to § 315e of the German Commercial Code ("HGB"), consolidated financial statements presented in accordance with the rules of the German Commercial Code were not prepared.

The auditor introduced to the Audit Committee the determined audit focus areas. The key audit matters for the audit of the Consolidated Financial Statements were (i) the acquisition of Nor-Cal Products Holdings, Inc., (ii) the recoverability of goodwill and (iii) the accounting and valuation of current and deferred taxes. For the audit of the Annual Financial Statements, the recoverability of equity investments and loans to affiliates were a key audit matter. The Audit Committee agreed to the audit focus areas and key audit matters as determined by the auditor and had no further amendments.

The Annual Financial Statements and Management's Discussion & Analysis as well as the Consolidated Financial Statements presented in accordance with IFRS, together with the Management's Discussion & Analysis, all for the 2017 fiscal year and all of which prepared by the Management Board, were audited by the independent auditor and received his unqualified endorsement.

The Annual Financial Statements, Management's Discussion & Analysis for the Company and the Corporate Group, as well as the audit reports from the independent auditor were submitted to all members of the Supervisory Board in a timely fashion. They were discussed in detail at the Audit Committee meeting as well as at the Supervisory Board meeting relating to the financial statements on March 20, 2018. The independent auditor attended both meetings, reported on the major findings of his audit and was available to answer additional questions from the Supervisory Board. In particular, the progress of projects and the contents of the report on „non-financial performance" and „non-financial declaration of the Group" (NFE) to be published for the first time for the fiscal year 2017 were discussed in detail between the auditors and the Supervisory Board. The review and confirmation of the availability of the NFE by the auditor is the subject of a separate meeting of the Audit Committee prior to the publication of the report on April 30, 2018. The Supervisory Board will inform about the findings of the review on the occasion of the report to the Annual General Meeting on May 23, 2018. 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 has approved the Annual and Consolidated Financial Statements, with the Financial Statements thus being 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 relationships with affiliated companies for the fiscal year 2017 ("dependency report"), in accordance with § 312 Sub-Para. 1 of the German Stock Corporation Act ("AktG") and afterwards presented this report to the Supervisory Board.

Ernst & Young GmbH, Wirtschaftsprüfungsgesellschaft, Eschborn, has audited the dependency report and has issued the following audit opinion:

„According to our professional audit and judgment we confirm that

1. the actual disclosures in the report are correct and

2. the company's payment for legal transactions as included in the report was not inadequately high."

The Management Board's dependency report as well as the related independent auditor's report were submitted the Supervisory Board. The Supervisory Board reviewed both, the dependency report as well as the auditor's report. Final review was made in the Supervisory Board meeting on March 20, 2018. The independent auditor attended this meeting, reported on audit of the dependency report and the major findings of his audit and was available to answer additional 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 final declaration of the Management Board at the end of the dependency report.

Acknowledgments

The Supervisory Board would like to sincerely thank the Management Board in its present composition, the Employee Council and the entire staff of the Group for their dedication and commitment in the successful 2017 fiscal year.

Adoption of this Report

The Supervisory Board adopted this Supervisory Board Report in the resolution dated March 20, 2018 pursuant to § 171 (2) of the German Stock Corporation Act ("AktG").

Asslar, Germany, March 20, 2018
On behalf of the Supervisory Board

Ayla Busch
Chairwoman of the Supervisory Board

INTERNATIONAL
UNITED
STRONG

We take our success, along with the acquisition of three companies through which the Corporate Group consistently advances its international growth, as an opportunity to show you the significance of internationality for your Company, Pfeiffer Vacuum.

On the following pages, you will come to know about how important this international focus is for Pfeiffer Vacuum and how it harmonizes with the Company's regional connection. Get acquainted with the companies that were newly incorporated in 2017 and join us for a small tour of our subsidiaries worldwide. In an interview with the Management Board, you will also learn about the role internationality will play in the future for Pfeiffer Vacuum.

GLOBAL ADVANTAGE

Quality, reliability, and advanced technological solutions – these are represented all around the world by the Pfeiffer Vacuum name. For years, the Company has belonged to the top players in the sector and continues to reach milestones with its technological impulses. The Company's international orientation is a prerequisite for this success. 83 percent of sales are generated abroad. And business all around the globe is very promising: new energy sources, digitalization, augmented reality and automation make vacuum technology a fundamental aspect of megatrends in different markets. By expanding its global production capacities, improving its international footprint and equipping its research facilities with new technologies, Pfeiffer Vacuum is strengthening itself for the future demands of its customers.

Vacuum technology is important for many megatrends:

- Renewable energy and power storage
- Electromobility, autonomous driving and smart vehicles
- Checking and packaging of foodstuffs
- Drones and robots
- Biotechnology

The future needs vacuum technology: Vacuum is employed in countless areas of industry to realize the megatrends of the future. Vacuum is indispensable, especially for the digitalization of our modern world.


83 %
of Pfeiffer Vacuum sales are generated outside of Germany, its country of origin.
In 2017, the global workforce of Pfeiffer Vacuum grew by
530
employees.
Pfeiffer Vacuum is represented in more than
60
countries around the globe.
In 2017, worldwide sales increased by
23.8 %.

GLOBAL ADVANTAGE
INTERVIEW WITH THE NEW MANAGEMENT BOARD OF PFEIFFER VACUUM TECHNOLOGY AG

Chief Executive Officer Dr. Eric Taberlet aims at making Pfeiffer Vacuum strong for the future by adjusting the current company strategy to the changes that take place in the core markets.

Since November 27, 2017, the Management Board of Pfeiffer Vacuum has consisted of a four-person team chaired by Dr. Eric Taberlet. Together with its 2,945 employees, the quartet aims to make Pfeiffer Vacuum stronger for the future. In the following interview, Dr. Eric Taberlet, Nathalie Benedikt, Dr. Ulrich von Hülsen, and Dr. Matthias Wiemer will discuss the Company's global potential for growth, the importance of internationality as well the future strategic orientation of Pfeiffer Vacuum.

Dr. Taberlet, since November 2017, the new Management Board of Pfeiffer Vacuum is in place, headed by you as CEO. What is your vision for the Company in your new role?

Dr. Taberlet: I have worked in the vacuum industry for more than 30 years. The last seven of them, I spent with the Pfeiffer Vacuum Group after they acquired the vacuum division of Alcatel – adixen – where I started my career in 1987. After such a long time in the industry, I am very excited now to take up the challenge and bring our Company a step further along the successful course it has set towards the future. As the development of sales in the past fiscal year 2017 impressively proves, we are already on a promising path and I want to do my best to drive this development forward. Therefore, it is crucial for me to fulfill every task in line with the essential values of our Company: sustainability, technological leadership, customer satisfaction, team spirit and ethically correct business practices.

How do you intend to achieve this goal – will there be changes to the company strategy?

Dr. Taberlet: The basic principles of the strategy will not change. In my position as head of the Business Unit Semiconductor & Coating, I was already strongly involved in the development of this strategy and I fully endorse it. Pfeiffer Vacuum will continue to strive to be a global player in the vacuum industry and to occupy a leading position in our five market segments Semiconductor, Industry, Coating, Analytics and Research & Development. We want to maintain our position as the technological driving force in our industry and hold on to the high quality level of our products to provide our customers with world-class vacuum solutions. But to achieve this, we need to adjust our strategy to the changes that are taking place in our core markets and the industry as a whole.

What are these changes and how do you plan to face them strategically?

Dr. Taberlet: We see a significant change in the semiconductor industry, which is one of the most promising growth markets. New megatrends are currently emerging that represent technological breakthroughs for future business. Digitalization, Artificial Intelligence or Smart Vehicles – i.e. autonomously driving cars – are just a few examples. All the semiconductor components used in these applications are manufactured with the aid of vacuum equipment. The technologies used in the semiconductor processes are changing and investments in new fab equipment are significantly increasing. In 2017, spending for new semiconductor manufacturing equipment already reached an all-time high of $ 57 billion – and a further increase to $ 63 billion is forecasted for 2018. Finally, we are also preparing ourselves for significant market growth in China.

Dr. von Hülsen: New megatrends which confront us with new challenges and demands are also currently emerging in the Analytics, Research & Development and Industry segments. Energy supply or the advances in biotechnology and life science are examples of these. Our vacuum solutions and leak detectors are used here for the production of superconductors, batteries, 3D printing systems or high-tech materials as well as for quality control, packaging of pharmaceuticals, quantum computing or in accelerators for cancer therapy. These high-tech applications hold enormous sales potential and we aim to maintain a leading position in all three market segments.

Dr. Matthias Wiemer is responsible for the global sourcing and global footprint as well as for the components business of Pfeiffer Vacuum.

Close exchange and cooperation between the four Board members is crucial to reach the defined goals. Therefore, weekly Board meetings take place.

Dr. Wiemer: We definitely want to participate in all of these trends and gain market shares. To achieve this, we will invest in innovative technologies to adapt to these new drivers in our core markets so that we are able to provide our customers with the matching products for their applications. Moreover, we will also expand our global footprint and global sourcing to enlarge our worldwide presence. This will enable us to be even closer to our customers in sales, service and supply chains. A special focus will be on Asia, particularly China. But it will remain a core element of our company strategy to be well-balanced and to not rely too intensely on one specific market segment. This is why all investments and strategic adjustments explicitly apply to both business units at Pfeiffer Vacuum.

Which investments are you planning concretely?

N. Benedikt: We will invest in our production capacities in the short and medium term to be able to process the increasing number of orders placed by our customers. This includes expansion and modernization of our production facilities worldwide – for example, our location in Romania. We also plan on strengthening the innovative force of Pfeiffer Vacuum by investing in our R&D activities to speed up the development of new, innovative products. Therefore, our labs and research facilities will be equipped with new technologies. Also, selective M&A activities to further expand our product portfolio and technological expertise are part of the company strategy. And last but not least, we will implement Industry 4.0 standards in our daily operations.

Nathalie Benedikt
has been CFO of the Pfeiffer Vacuum Technology AG since November 2017.

Since August 2017, **Dr. Ulrich von Hülsen** has been a member of the Management Board.

Please explain how you plan to make use of the opportunities provided by Industry 4.0!

N. Benedikt: The Management Board wants to make Pfeiffer Vacuum strong for the digitalized future by taking full advantage of Industry 4.0. Perspectively, we want to implement more automation in our worldwide manufacturing facilities. The Cobot concept – i.e. a shared workspace between a robot and human employees – is very interesting for some manual tasks. Also Augmented Reality will play a major role in our production and design departments in the future. Using artificial intelligence and big data exploration to help improve the operations at our customers' will be another huge task not only for our R&D department but also for our IT infrastructure. Moreover, I consider it essential that our employees are able to globally cooperate fast in real-time. This requires new modern collaboration technologies in the Pfeiffer Vacuum facilities around the globe.

What role do employees play in this strategy?

N. Benedikt: Our employees are the most important part of the strategy. Without them and their enormous expertise, we would not be able to reach even one of the defined goals at all. This is why we put our employees at the heart of our strategy. My Management Board colleagues and I want to establish a global improvement program that aims at enhancing worldwide cooperation of all employees by using agile project management and visual management methods. Moreover, our global learning platform gives employees the opportunity to take part in advanced trainings on technical topics, project management techniques or general skills. In an international company like Pfeiffer Vacuum, worldwide collaboration between our employees is crucial to make use of the comprehensive know-how and the specific competence of each and every one. Only by doing so will we be able to enhance and fulfill our customers' demands.

Developing high-tech vacuum solutions for the demands of the future megatrends, an expanded global footprint, local proximity to the customers as well as the digitalization of the internal processes are the main focus points of the company strategy.

INTERNATIONAL GROWTH

With the acquisitions carried out in 2017 of the companies ATC, Nor-Cal, and Dreebit, Pfeiffer Vacuum considerably expands its portfolio. New markets and groundbreaking synergies carry great potential for growth in promising markets.

In our globalized world, international cooperation and a worldwide presence are prerequisites for economic growth. For this reason, Pfeiffer Vacuum carried out trailblazing acquisitions in 2017, further strengthening its position with its takeover of three companies in strategically significant business areas.

ATC

Advanced Test Concepts (ATC), headquartered in Indianapolis, Indiana, U.S., is a provider of innovative leak testing systems. The company was founded in 1987 and first specialized in testing equipment for quality control in the automotive industry. From there, its portfolio of leak testing equipment and methods steadily developed into different areas. In 2000, ATC introduced a new leak detection technology onto the market: the Micro-Flow Sensor and Mass Extraction instruments. ATC holds numerous U.S.-American and international patents. With this acquisition of the corporation, Pfeiffer Vacuum consistently expands its existing product portfolio for leak detection and has gained groundbreaking leak detection technology with the patented Micro-Flow technology from ATC. With access to new applications and alternative technologies, Pfeiffer Vacuum will become the market leader in non-destructive testing. This business area is extremely attractive and high-margin, especially considering possible synergies in further development. ATC's research and production sites are located at headquarters in Indianapolis. Additionally, the company has sales and service branches in China, India, Mexico and Europe.

Dreebit

With the takeover of the vacuum service provider Dreebit, headquartered in Dresden, Germany, Pfeiffer Vacuum is putting emphasis on the growing area of service. Today, service already constitutes around 19 percent of the Company's total sales and is an increasingly important sales argument for the customers of Pfeiffer Vacuum. Dreebit GmbH was established in 2006 in Dresden with the goal of introducing its own technology for the generation of highly charged ions onto the market. This technology is reflected in the company's name: Dreebit stands for Dresden EBIT (EBIT= electron beam ion trap). Steadily, further areas of business, such as vacuum service, plant construction, and software development, were tapped into. Today, Dreebit has some 50 employees at its locations in Dresden and Großröhrsdorf in Germany. With its high quality of service and process, Dreebit will be a central part of Pfeiffer Vacuum's future international service strategy.

Nor-Cal

The U.S.-American company Nor-Cal Products Inc. is a leading manufacturer of vacuum components with a special focus on the semiconductor industry. Furthermore, the company has identified a very interesting growing market for medical technology in North America. Nor-Cal was established in 1962 in Yreka, California, USA, and has production sites at its headquarters in Yreka and in Ho Chi Minh City, Vietnam. Altogether, the company has 335 employees worldwide. Its portfolio encompasses high-quality vacuum components, chambers, and valves for large international customers of the semiconductor, coating, and display sectors as well as leading universities and research institutes. With this transaction, Pfeiffer Vacuum aims to significantly strengthen its position in the very attractive market of vacuum components. The merger makes Pfeiffer Vacuum a leading supplier in the important, growing U.S. market. Our common American customers will profit from a wider product portfolio, new technological solutions, and a more comprehensive sales network. At the same time, the sales and marketing of Nor-Cal through Pfeiffer Vacuum's significantly stronger distribution network in Asia will make substantial sales increases possible.

INTERNATIONAL GROWTH
NEW MEMBERS OF THE PFEIFFER VACUUM TEAM

» Through the merger with Pfeiffer Vacuum, Dreebit profits from the global distribution network, an expansion of its service portfolio with new products, as well as the Company's existing structures. On the other side, Pfeiffer Vacuum will be enriched by Dreebit's innovative strength and flexible approach to customer-specific requirements in the service and project business. From the very beginning, good cooperation with Pfeiffer Vacuum has been decisive for our mutual success. From the minority holding that was entered into in 2010 to the complete takeover of Dreebit in early 2017, both companies have grown closer and closer together. On an operational level, our service technicians also work closely with their colleagues at the parent companies.

Dr. Frank Großmann, Managing Director, Dreebit GmbH

Dr. Frank Großmann is a founding member and Managing Director of Dreebit GmbH in Dresden, Germany. He has been operating the company since 2006.

Interview with Thomas Deany, President and Managing Director of Nor-Cal

In June 2017, Nor-Cal became a member of the Pfeiffer Vacuum Group. What benefits do you expect from this merger?

There are many benefits. Strategically, Pfeiffer Vacuum's large sales team, consisting of over 200 employees, will promote our high-quality products globally throughout its extensive network. This opening up of new markets will have a direct positive effect on our sales and our position as a company. Nor-Cal is globally positioned, but the presence of Pfeiffer Vacuum is considerably broader, goes back more than 125 years, and commands much respect by association. This promotion of Nor-Cal components and services will be a boost to both our top line and our reputation.

What is the main area of business of Nor-Cal?

We serve the vacuum industry and science as a premier source for custom and standard vacuum components for containment and control in vacuum processes and applications. Containment is covered by the highly-configured custom chambers that work in a pressure regime of anything from 1 Torr to 5×10^{-11}. We are known for our custom design capabilities, and for our expertise in manufacturing. Control is covered by our pressure control valves, as well as connectors, flanges, fittings, and all the components required for a complete vacuum system.

What distinguishes the Nor-Cal team and what makes it an enrichment for Pfeiffer Vacuum?

That's easy – our employees are our greatest asset. Nor-Cal is a world-class company in the area of vacuum technology. World-class companies are not created from fancy buildings or equipment, they are created by world-class people. From our machinists and welders to our finance and logistics teams – we have world-class employees. They are self-motivated to meet and exceed the commitments that we make daily to our customers. Whether it's a tight delivery deadline, or a manufacturing challenge, it is the people at Nor-Cal that bring it together.

What experiences have you had up to now in cooperation between Pfeiffer Vacuum and Nor-Cal?

From the very first discussions in which the management of Pfeiffer Vacuum revealed their great interest in Nor-Cal Products, my experiences have been fantastic. As the managers stated their intention to purchase the building to show the employees and the corporation its long-term commitment, I was thrilled. They are as excited to be a part of our family as we are excited to be a part of theirs. As I said, the culture at Pfeiffer Vacuum blends with Nor-Cal's culture well. They, like Nor-Cal, place great importance on their people. This is an integral part of their business plan and culture. Based on my impressions, challenges are approached with a high level of professionalism, enthusiasm, collaboration, and cooperation. This is inspiring and speaks to great future opportunities for growth.

Thomas Deany is the President and Managing Director of Nor-Cal and is responsible for 335 employees worldwide.

The semiconductor market is highly important for Nor-Cal. What are the most important drivers of growth in this sector?

We all know that artificial intelligence will play a big role in our lives. For everything – from smart devices around the house to autonomous cars, from facial recognition to the "internet of things," … – more semiconductor memory and chips are required than ever before for displays, storage, and new sensor-supported technology. This will drive the business short term and well into the future. The companies that utilize these technologies in manufacturing and research applications are already our customers. There is a fluctuation point between hard drives and flash drives now that has finally come to fruition, and we are lucky enough to be specified on these platforms. Being a strategic partner for these manufacturers means that as they grow, we grow too.

Please describe the prospects for future growth and entrepreneurial potential connected with the merger of business activities with Pfeiffer Vacuum in the next few years!

The prospects for growth seem almost unlimited when you put two companies like Pfeiffer Vacuum and Nor-Cal together. Pfeiffer Vacuum is certainly integrated into the biggest industrial companies in the world and can introduce Nor-Cal products to them. Nor-Cal can introduce Pfeiffer Vacuum to our customer base which is stronger in America and has a more robust R&D base. The semiconductor industry is thriving. Our customers are challenged by the growing demand and the ever-expanding applications and processes in which their tools are instrumental. It is our job to support their needs by coming up with enabling technology that allows them to continue their good work and to meet their delivery schedules. We believe that we can pull Pfeiffer Vacuum products into our customers' applications. We have chambers for containment. We have valves for control. And now, with Pfeiffer Vacuum, we have the ability to pump these systems, surrounding the tools with our components. Vacuum is needed for everything. Like Pfeiffer Vacuum says: "Vacuum for life."

Hemi Sagi is the founder and Managing Director of ATC. The company holds several US-American and international patents in the areas of leak detection and flow measurement technology.

» Our patented, market-tested and proven leak detection methods with air optimally complement the methods that use helium as a test gas, which Pfeiffer Vacuum also offers. No other company in the leak detection market offers users as many different technologies as we do. In many of the main application areas of ATC – especially in the pharmaceutical and medical technology industries – Pfeiffer Vacuum has not been strong up to now. This merger makes new solutions and potential product applications possible. ATC offers one of the most established technologies for shelf life and quality assurance of pharmaceuticals – and we are working to position Pfeiffer Vacuum's products on the market.

Pfeiffer Vacuum could become the largest and leading company on the leak detection market. According to my personal estimation, this holds sales potential in the amount of many billion US dollars for instruments, leak detection systems, sniffer probes, and service. We expect that the sales of ATC products alone will double in the next four to five years.

Hemi Sagi, Managing Director of ATC

INTERNATIONAL GROWTH DAILY WORK WORLDWIDE

NOR-CAL

The company was founded in 1962 in Yreka, California. It took its first steps into the vacuum sector, which was then just emerging, as a supplier of flanges, fittings, and customer-specific components.

Nor-Cal _ Experts from different areas design and produce customer-specific vacuum parts and components.

With the acquisition of ATC, Nor-Cal, and Dreebit, the existing product portfolio of Pfeiffer Vacuum has not only been expanded – the global team has also grown significantly. More than 400 employees strengthen the Company. Take a look behind the scenes of the new corporate members and get to know the different products and their areas of expertise!

Nor-Cal: Specialists for Parts and Components

Vacuum components, chambers, and valves are Nor-Cal's areas of expertise. Worldwide, around 300 employees work for the Company's customers, mainly from research and the semiconductor industry. The product portfolio of Nor-Cal encompasses approximately 6,000 standard products for all possible vacuum applications. Added to these are a multitude of customer-specific productions of chambers, systems, and component parts. A team of experts from different areas with broad qualifications designs these solutions in exact accordance with customer specifications – or develops them together with the customer.

ATC

For more than 30 years, ATC has been a supplier of inspection and testing equipment. The company developed the patented Micro-Flow technology, which conducts leak detection using air.

The Nor-Cal team of engineers designs fitting solutions based on customer requirements. All data and information are first checked for feasibility and, where necessary, optimized in close cooperation with the customer before the start of the production process. Customers who are not capable of giving their own technical input are supported by the engineers, who also create the necessary data files. Energy efficiency and operating costs are already taken into account during design and construction.

Innovative strength is at home in Nor-Cal's research and development team. There, the experts develop new product prototypes and conduct pressure, conductivity, and thermal analyses. In addition, they test developed software and electronics.

The technicians at Nor-Cal have well-founded knowledge in the production of different kinds of vacuum components such as T-frames, valves, and pump casings or special outlet components. Their expertise in welding, especially, allows them to create very individual, customer-specific products. Before dispatch, the technicians conduct thorough quality testing of every custom-produced product.

ATC: Innovation through patented leak testing systems

It is the company philosophy of ATC to offer the customer high-quality, innovative, and cost-efficient inspection and testing equipment for leak testing. The employees are in service every day to produce the high-quality products that ATC stands for. Just like at Pfeiffer Vacuum, the aspiration for quality and proximity to the customer doesn't just begin at production. In the conception phase, the experts give it all they have got in order to create optimal leak detection solutions for the customer. The team of engineers at ATC has well-founded knowledge in different areas such as in mechanics, electrics, software, industry, metrology, or test design. Ideal synergies are formed and customers can rely on strong expertise.

ATC _ develops inspection and testing equipment for leak testing at the highest level of quality.

DREEBIT

Dreebit was established in 2006 with the vision of tapping into the market of sources for the production of highly charged ions. Only one year later, vacuum service was established as a further area of business. With the adoption of a new quality management system and certification in accordance with ISO 9001 in 2008, the foundation was laid for lasting growth that continues today.

All valid industry regulations, such as those on safety, quality, and environmental protection, are taken into account when designing new products.

The laboratories in which ATC testing and product development take place are accredited by international inspection committees. Here, the experts at ATC perform calibration as well as various tests, for example, with dangerous or explosive gases. For customers who do not have exact knowledge of the leak-tightness requirements of their applications, the technicians at ATC conduct tests of the desired application in order to determine the appropriate test method for the individual customer.

All products are fabricated in-house at ATC. The experts, all from different specialist fields, work closely together and provide support for customer projects from start to finish. Furthermore, at ATC, there are special system construction teams that are specialized in assembly and installation as well as the testing of leak detection and flow systems.

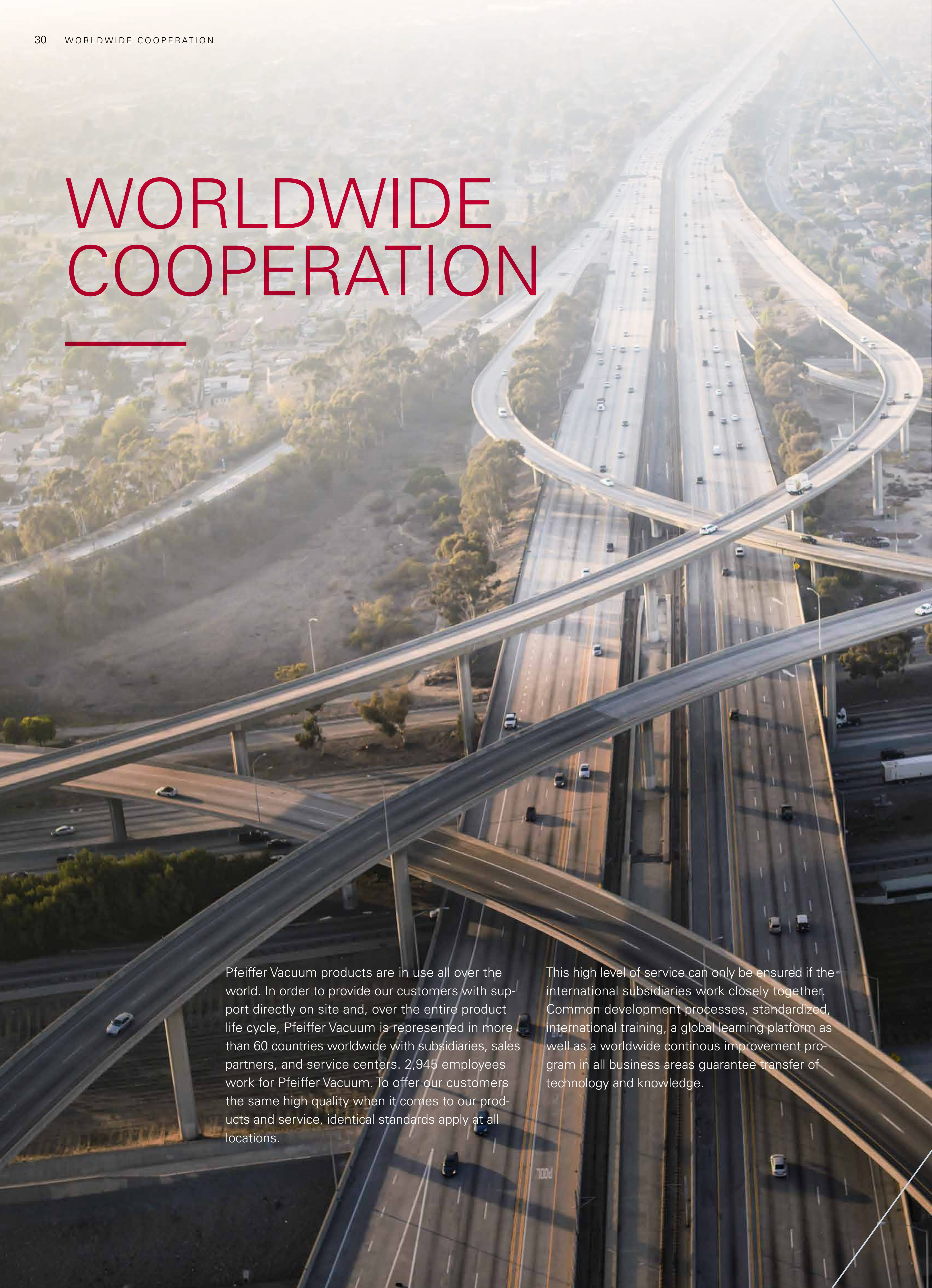
ATC offers aftersales service for all products at the highest level of quality. For this purpose, experienced service teams of experts from different fields are available. They perform annual calibration and maintenance work and, for all other problems, will make sure the equipment is operating again as fast as possible.

Dreebit: Growth in Service

Dreebit's expertise is concentrated in two areas. The largest and most important is its main business area of vacuum service. Experienced service technicians and vacuum experts cover a wide range of tasks. They repair and service vacuum pumps, components, systems, and measurement technology. Moreover, they conduct decontamination according to the latest safety standards. The day-to-day work of Dreebit's approx. 50 employees also includes monitoring of vacuum systems and the implementation of customer-specific solutions according to the seminal concept of Service 4.0. The Dresden team is young and very interdisciplinary and can thus respond to complex, customer-specific inquiries with the relevant expertise in a targeted way. This is a huge advantage, especially in the area of digitalization, which is becoming increasingly important in vacuum service.

The second field of activity at Dreebit also requires employee precision and expertise: products and special, customer-specific systems in the areas of plasma and ion beam technology. Customers profit from the Dreebit team's mix of experienced industry professionals and young, innovative trendsetters. They develop ion sources for the production of highly charged ions, construct special, customer-specific (ultra) high vacuum systems and possess expertise collected over years and proven in the field.

Dreebit _ An interdisciplinary team develops technology and service for the requirements of the future.



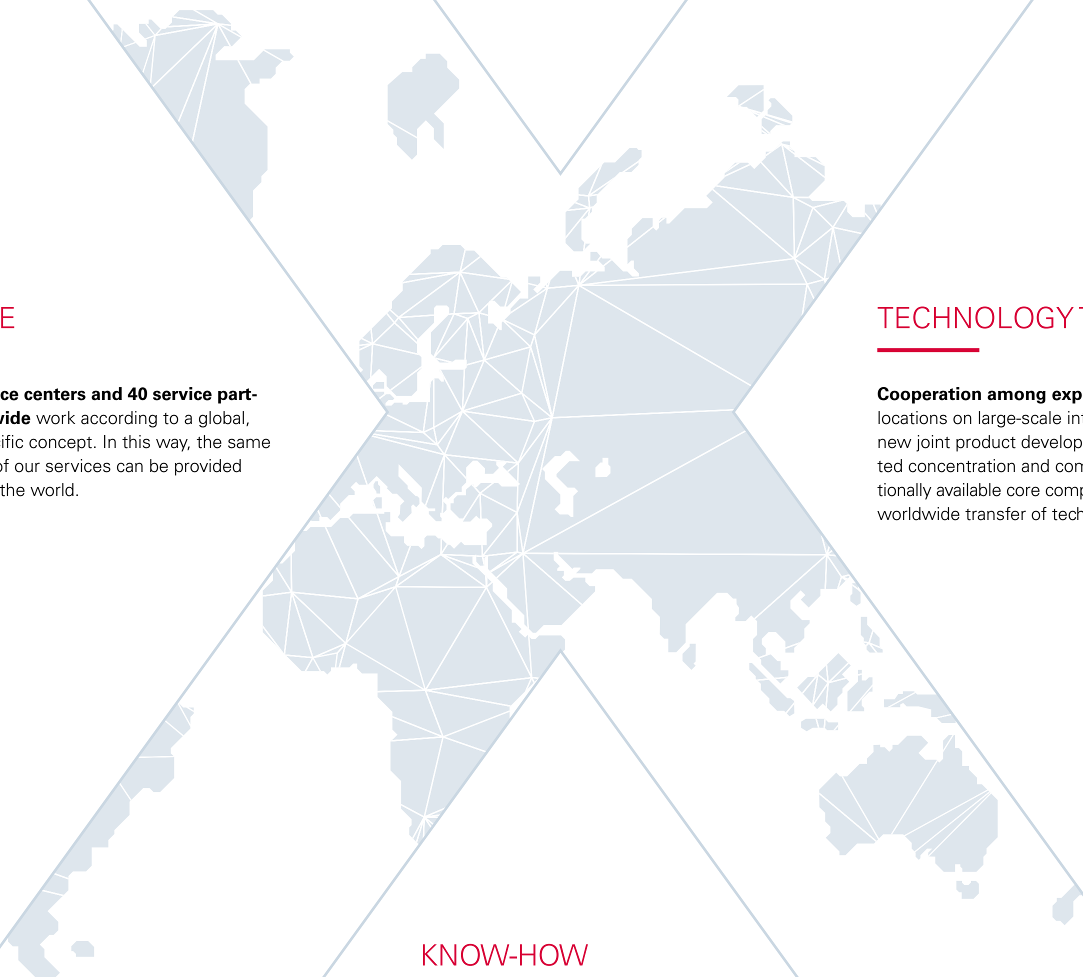
WORLDWIDE COOPERATION

Pfeiffer Vacuum products are in use all over the world. In order to provide our customers with support directly on site and, over the entire product life cycle, Pfeiffer Vacuum is represented in more than 60 countries worldwide with subsidiaries, sales partners, and service centers. 2,945 employees work for Pfeiffer Vacuum. To offer our customers the same high quality when it comes to our products and service, identical standards apply at all locations.

This high level of service can only be ensured if the international subsidiaries work closely together. Common development processes, standardized, international training, a global learning platform as well as a worldwide continous improvement program in all business areas guarantee transfer of technology and knowledge.

PRODUCTION

Our portfolio comprises of 20,000 different products. They are manufactured in 8 production locations worldwide. The same high standards of quality, reliability, and excellence apply to our products at every location.



SERVICE

Our 25 service centers and 40 service partners worldwide work according to a global, product-specific concept. In this way, the same high quality of our services can be provided anywhere in the world.

TECHNOLOGY TRANSFER

Cooperation among experts from different locations on large-scale international projects, new joint product development and the targeted concentration and combination of internationally available core competences ensure the worldwide transfer of technology.

KNOW-HOW

Internationalized, web-based training as well as specific continuing education programs at different branch offices ensure the same, consistent employee expertise worldwide. Through daily global cooperation with international colleagues and business partners, employees of Pfeiffer Vacuum have strong intercultural competence.

WORLDWIDE COLLABORATION STRONG AND UNITED INTO THE FUTURE.

North and South America

The entire region is overseen by Pfeiffer Vacuum USA. The United States is an enormously important location for the Company. The American subsidiary generated sales of 142.1 million euros in the last year. The American headquarters of Pfeiffer Vacuum is located in Nashua, New Hampshire. Additionally, the Company is represented in San José, California, and there is a service center in Austin, Texas. Furthermore, the headquarters of two of the three new members of the Corporation, Nor-Cal and ATC, are located in the United States. Many of our South American customers are supervised directly from the American headquarters in Nashua.

Moreover, in many countries, there are sales representatives and distributors available for the customers: in Chile, Venezuela, Brazil, or Paraguay, for example.

The Rest of the World

Pfeiffer Vacuum is also represented by sales branches and distributors in the other countries of the world. These include, for example, South Africa, Australia, Canada, or Thailand. In this way, we ensure our customers local assistance and direct communication.

Europe

The most significant technological driving forces of the Company are at home in Europe: its two biggest locations in Asslar and Annecy. The largest share of sales is obtained in this region – 225.5 million euros in 2017. Pfeiffer Vacuum is represented in Europe with nine subsidiaries that serve customers in all European countries. Moreover, there are numerous local sales representatives and distributors.

Asia

After Europe, Asia is the region with the second-largest share of sales in the Company. In 2017, turnovers of 220,3 million euros were generated. The most important semiconductor customers of Pfeiffer Vacuum are based here, making the region the most promising market of the Company. Pfeiffer Vacuum has six subsidiaries in Asia in addition to further sales branches and distributors.

STRONG ROOTS

Arthur Pfeiffer founded the Company in Wetzlar. Through lighting technology, he quickly found his way into vacuum technology.

LOCATIONS IN GERMANY AND FRANCE

With a lathe and 300 Goldmark, Arthur Pfeiffer, then a 23-year-old precision mechanic, founded his own workshop in the year 1890. It was located in the attic of a house in the Central Hessian town of Wetzlar.

There, the young company founder discovered lighting technology as a field for his own specialization. The invention of the electric light bulb marked the birth of vacuum technology for Pfeiffer Vacuum: Arthur Pfeiffer recognized the importance of the evacuation of light bulbs and developed special vacuum pumps that revolutionized the production process of light bulb manufacturers.

Further branches of industry also became aware of the new technology, and the international success of the Company was unstoppable. In 1900, Arthur Pfeiffer and his Company relocated to a larger building in the city center of Wetzlar. A few years later, a new construction with larger manufacturing halls was necessary. In 1926, the company already had numerous general agencies worldwide, particularly in Europe and the United States. Their number and relevance grew from year to year.

In 1965, the move to larger business premises in the neighboring town of Asslar began, now under leadership of the founder's son. The main headquarters of Pfeiffer Vacuum Technology AG is still located there today.

Despite its ever-increasing international activity, Pfeiffer Vacuum has always remained true to its home in Central Hesse. The Company is tightly connected to the region and fosters close friendships with partner companies, clubs and associations in the neighborhood.

With the invention of the turbopump in 1958, Pfeiffer Vacuum revolutionized the industry. It is still one of the most important achievements of vacuum technology today.

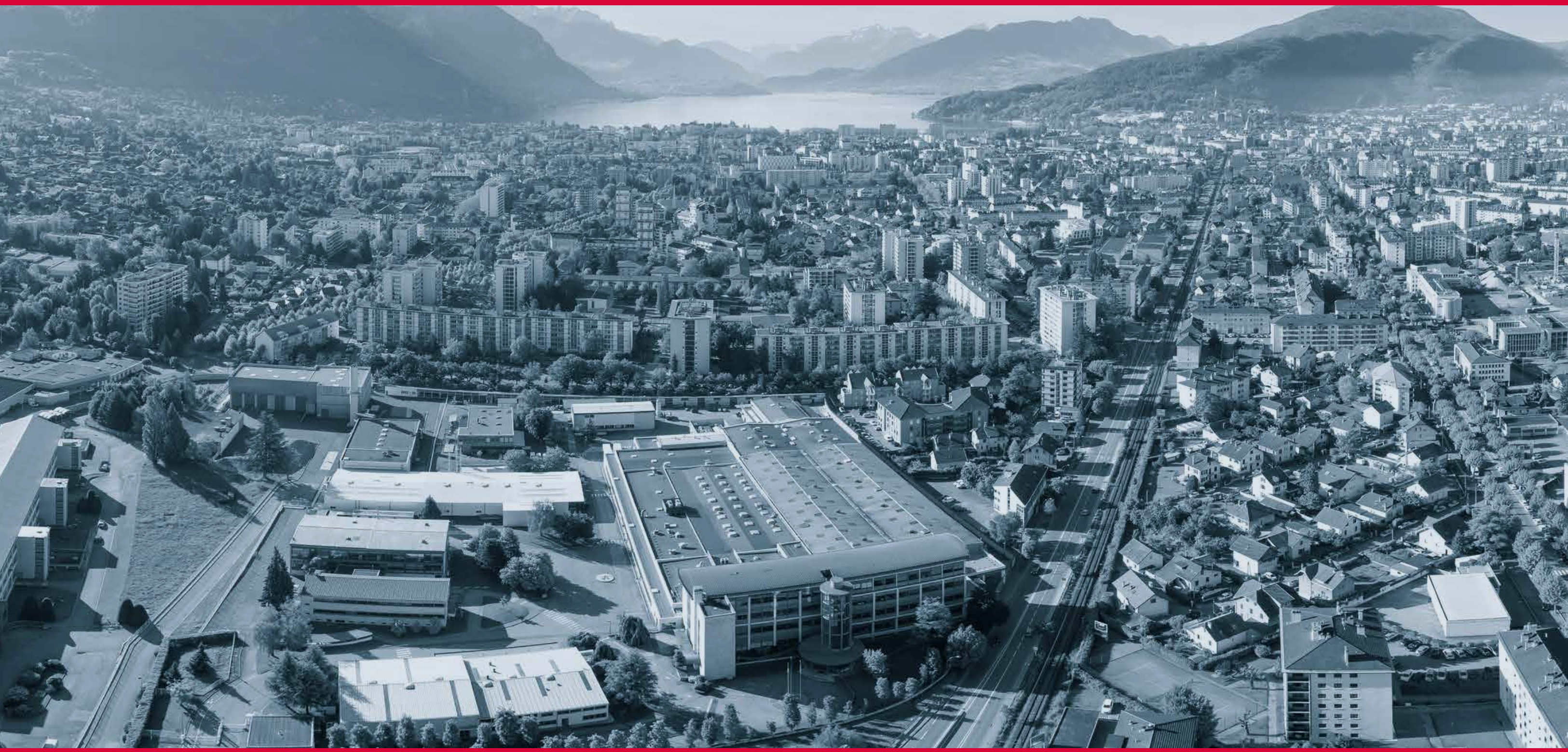
Asslar is a small town directly neighboring Wetzlar in Central Hesse. It has a population of approximately 15,000 and is an attractive location for companies of the metal, optics, and plant industries due to its central location and proximity to the Rhine-Main metropolitan area.

"Pfeiffer Vacuum is closely connected to the region of Central Hesse. This is where our Company was founded, where 737 of our employees live and where our international success story began."

Nathalie Benedikt, CFO Pfeiffer Vacuum Technology AG

“Annecy has been the location of our Company for over 65 years. The people living in this region are known for their professional expertise in precision mechanics. This is shown by the knowledge of our employees every day, in an impressive way!”

Dr. Eric Taberlet, CEO of Pfeiffer Vacuum Technology AG



Annecy is located in the French region of Auvergne-Rhône-Alpes, near to the 27 km² large Lac d’Annecy. The city has around 125,000 inhabitants and is home to many companies of the metal, textile, leather, food, and wood industries.

Pfeiffer Vacuum's high-performance helium leak detectors, among others, are produced in Annecy. The first helium leak detector was manufactured in 1966. In 2017, 1,946 leak detectors were produced in Annecy.

Parallel to the ever-growing success of Pfeiffer Vacuum, a second company established itself in the field of vacuum technology in France: the Société Alsacienne de Constructions Mécaniques, founded in Graffenstaden, Alsace, in 1872. In its early years, the Company was a producer of armaments. In 1951, it chose Annecy in the region of Auvergne-Rhône-Alpes as manufacturing base for its submarine torpedos. When the French navy decided to relocate its entire torpedo production, other fields of activity needed to be found.

The factory used the existing technical potential of its workers in precision mechanics and high-quality electronics for the development of vacuum pumps for the nuclear industry. Soon, vacuum pumps manufactured in Annecy were employed in all high-tech sectors. Strengthened by these first successes in France, a subsidiary was then opened in Germany. In 1969, the purchase of the then-leading French supplier of low vacuum pumps followed.

In the subsequent decades, the Company grew steadily by means of numerous acquisitions and expanded its worldwide presence further and further. It established itself especially strongly in the semiconductor industry in Asia as well as in several other industrial branches with its expertise in helium leak detection. In 2010, Pfeiffer Vacuum took over the company "adixen," the vacuum technology business unit of Alcatel-Lucent at the time.

This merger created valuable synergies for both sides. The entire Corporate Group is operated from the locations in Asslar and Annecy. Close cooperation among all of the departments creates important impulses for technology and international growth. Both locations form the central roots of the Company. Pfeiffer Vacuum is closely linked with the regions around its two largest company locations.

The Annecy location is the headquarters of the Semiconductor & Coating Business Unit of Pfeiffer Vacuum.

STRONG ROOTS INVOLVEMENT IN SPORTS, SCIENCE AND SOCIAL PROJECTS

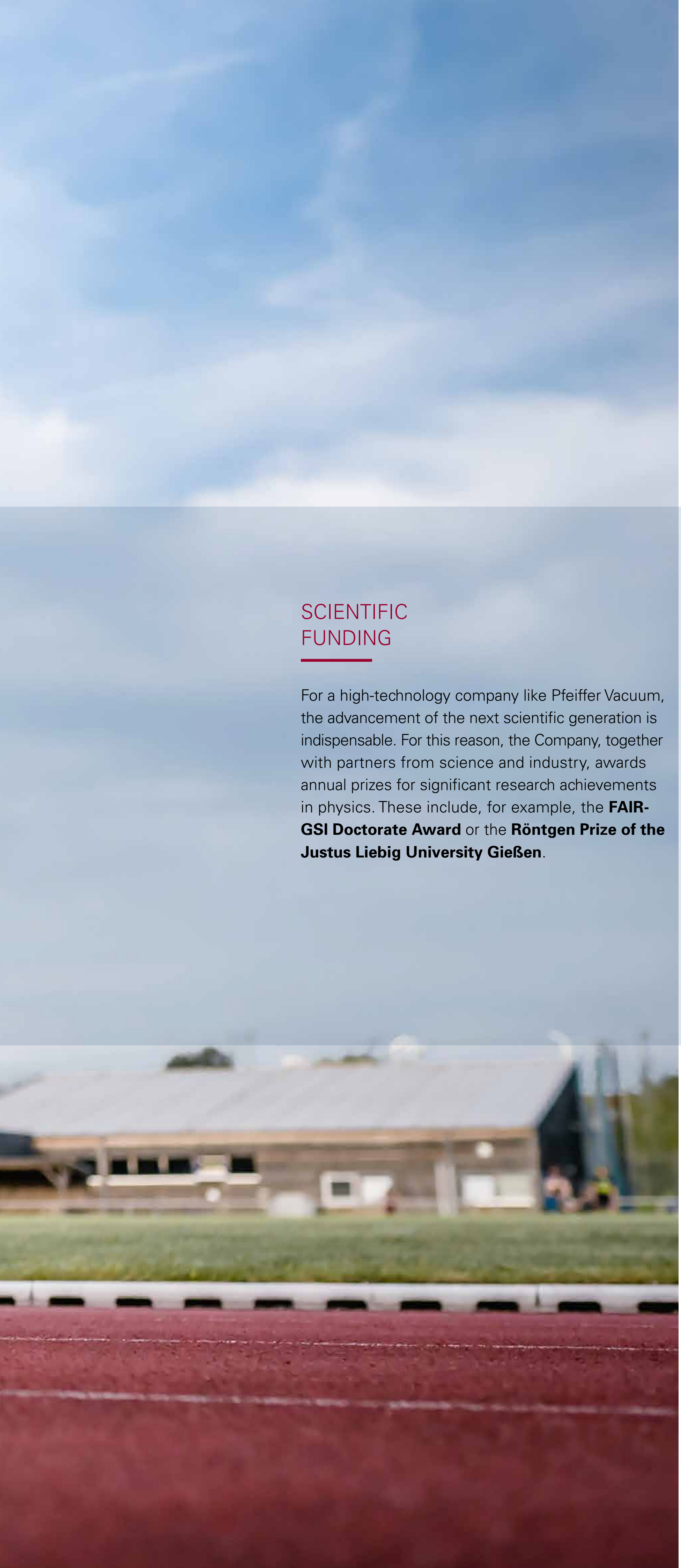
Pfeiffer Vacuum is strongly involved, especially at its Asslar location, in sponsorship and social support efforts.

SPORTS SPONSORSHIPS

Pfeiffer Vacuum is a sponsor to top athletes from the region of Central Hesse who have shown outstanding performance, just as the Company itself has, bringing them to a high international level.

Sponsorship partners of Pfeiffer Vacuum:

- Handball Bundesliga team **HSG Wetzlar**
- Wheelchair basketball Bundesliga team **RSV Lahn-Dill**
- Sprinter and Olympic participant **Lisa Mayer** of the **Sprintteam Wetzlar**



SCIENTIFIC FUNDING

For a high-technology company like Pfeiffer Vacuum, the advancement of the next scientific generation is indispensable. For this reason, the Company, together with partners from science and industry, awards annual prizes for significant research achievements in physics. These include, for example, the **FAIR-GSI Doctorate Award** or the **Röntgen Prize of the Justus Liebig University Gießen**.

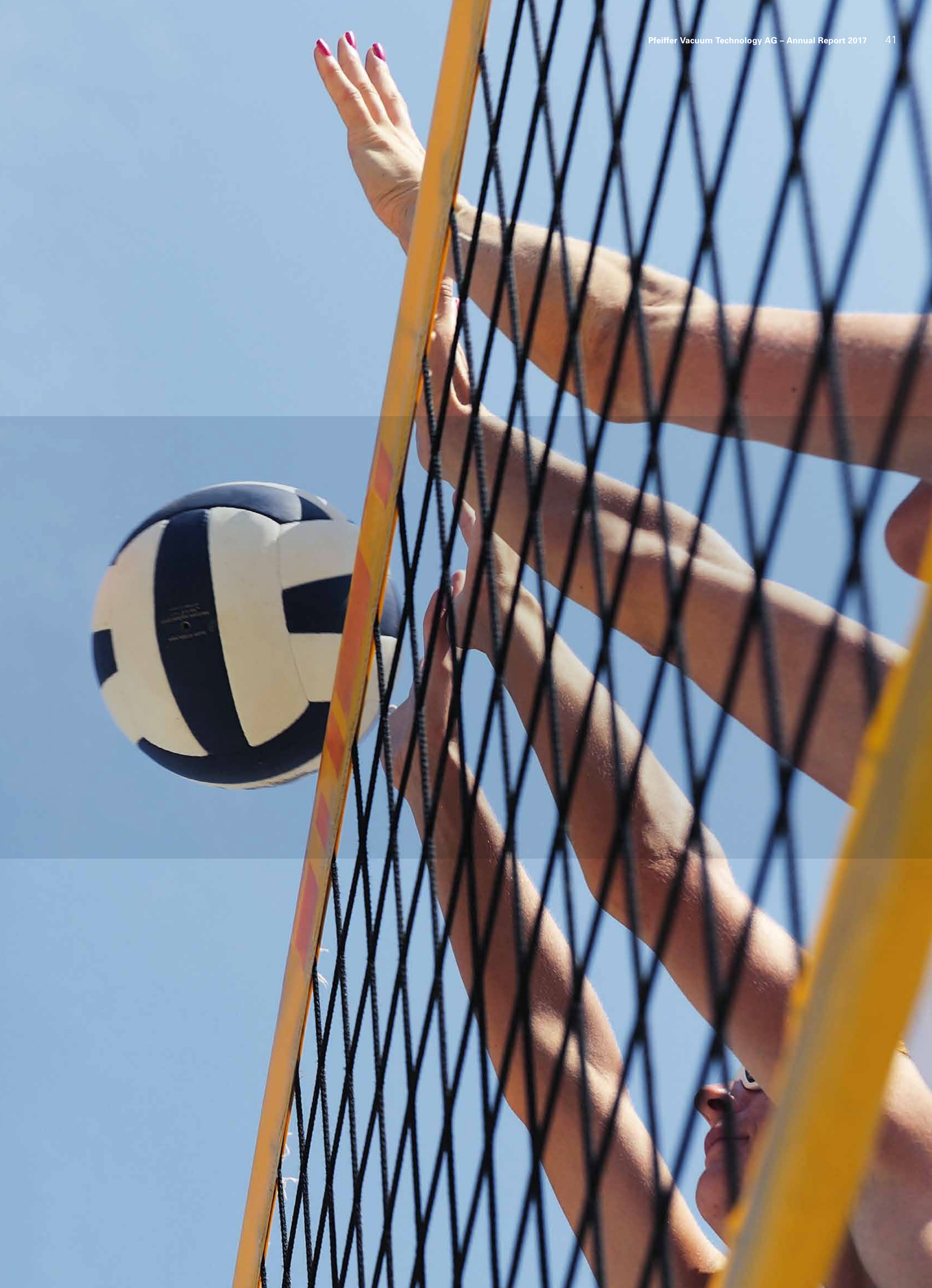
SOCIAL RESPONSIBILITY

Pfeiffer Vacuum takes its social responsibility, also outside of the Company, very seriously, supporting the work of disabled persons' and children's aid organizations, local associations, clubs, and schools.

STRONG ROOTS
CORPORATE GAMES IN ANNECY

Every July, the Corporate Games – an international company sporting event in which teams from many diverse companies compete in different events – take place in Annecy. Many Pfeiffer Vacuum employees travel from Germany to France every year to participate in the athletic competitions in mixed teams with their colleagues from Annecy. At the Corporate Games, team spirit comes first and foremost. While competing together during the sporting events, while cheering on the different teams or at the concluding Corporate Games celebration, the French and German colleagues are brought closer together.

The Corporate Games in Annecy promote team spirit and cooperation between the locations in Germany and France.



STRONG ROOTS PRODUCTION IN ASSLAR AND ANNECY

At the production site in Annecy, leak detectors, backing pumps as well as contamination management systems are manufactured on more than 10,000 square meters of space.

At headquarters, in the Central Hessian town of Asslar, 737 employees work with passion and team spirit to offer the customer optimal vacuum solutions every day. The gigantic production halls with almost 12,000 square meters of space are the heart of the headquarters. Here, vacuum solutions such as backing pumps, systems, and turbo pumps are produced.

More than

50 %

of all company employees work at the Asslar and Annecy locations.

38,420

TURBO PUMPS WERE MANUFACTURED AT THE PRODUCTION SITE IN ASSLAR IN 2017.

60 %

The eco-friendly industrial cleaning plant at our Annecy location uses 60% less water in comparison to other cleaning systems. It is part of the Green Lab Fab concept for the improvement of efficiency and saving of resources within the production cycle at Pfeiffer Vacuum in France.

ISO

The quality and environmental management systems of Pfeiffer Vacuum's two largest locations have been ISO-certified for many years. Additionally, the energy management of the Asslar location is ISO-certified.

A VACUUM SOLUTION IS CREATED BY COMBINING OUR STRENGTHS

What is the perfect vacuum solution? Our customers' needs are as diverse as our product portfolio. The complex demands on vacuum significantly differ from case to case. For some clients, it is important to continuously maintain a certain pressure. For others, it is important to evacuate a vacuum chamber particularly quickly

Up to 5,000 backing pumps and 1,000 turbo pumps are required to manufacture some 100,000 wafers per month in a modern semiconductor factory. In contrast, a research laboratory may be sufficiently equipped with a single backing pump. Other applications involve quality assurance in manufacturing processes, where the purpose is often to test the tightness of vessels and components or to analyze the composition of process gases.

With every vacuum solution we design, our objective is to focus on delivering products of the highest quality which meet our customers' specific requirements. From the development stage right through to commissioning, our solutions for evacuating, measuring, and analyzing vacuum stand for technological excellence matched with the highest standards of quality. Consultation and service are not forgotten. Our qualified employees are always on hand to provide reliable support for our customers with science-based expertise and many years of experience.

Key factors for compiling a vacuum solution:

- Number and types of gases in one container
- Pressure and flow velocity
- Intended final pressure and base pressure
- Pumping speed and throughput

Application examples for vacuum solutions:

- Analysis technology
- Chemical industry
- Coating of glasses, architectural glass, tools, flat screens, Blu-ray discs
- Drying processes
- Food and beverage industry
- Leak detection for the automotive industry
- Manufacturing solar cells
- Paper manufacturing
- Pharmaceutical industry
- Semiconductor production
- Solar thermal plants
- Space simulation
- Steel degassing

ELEMENTS OF VACUUM-SOLUTIONS

VACUUM CHAMBERS

Depending on process conditions
Low, medium, and high vacuum chambers in individual shapes and sizes

BACKING PUMPS

Low and medium vacuum
Rotary vane, diaphragm, Roots, side channel, screw and piston pumps in addition to pumping stations

MEASUREMENT AND ANALYSIS EQUIPMENT

For all pressure ranges
Leak detectors, gas analyzers, gauges, and mass spectrometers

TURBO PUMPS

High and ultra-high vacuum
Magnetic and hybrid bearing turbo pumps and turbo pumping stations

COMPONENTS

Valves and components
Gaskets, filters, valves, flanges, electrical feedthroughs, manipulators, bellows components, and other accessories

SYSTEMS

Individual technologies
Multi-stage vacuum systems, special pumping stations, calibration and decontamination systems

SERVICE

Flexible service module
Technical training and seminars, on-site service, comprehensive service contracts, regional service centers, replacement products, and original replacement parts

CONSULTATION

Absolute customer orientation
Needs assessment, design, and calculation of vacuum systems as well as product consultation

PRODUCT PORTFOLIO

Manufacturing many high-tech products and items for daily life is only possible in special vacuum chambers under pressure conditions comparable to those in outer space.

We cover the full spectrum with our product range and are therefore able to offer the perfect vacuum solution from one source for each customer and for each application. The Pfeiffer Vacuum product portfolio is divided into the areas of vacuum generation, leak detection, vacuum measurement and analysis, installation elements, vacuum chambers, and vacuum systems. It includes a complete range of hybrid and magnetically levitated turbopumps, oil-lubricated and dry-compressing low and medium vacuum pumps, leak detectors, mass spectrometers, and gauge heads. We manufacture vacuum chambers in cubical, cylindrical, and bell-shaped designs. Our chamber program covers low, medium, and high vacuum applications.

In order to connect the different vacuum components with each other or to shut them off, we offer a wide range of installation elements such as flanges, fittings, seals, and valves.

In addition, Pfeiffer Vacuum develops and manufactures complete vacuum systems for customer specific processes, such as testing components for the automotive and electronics industries, testing pressure vessels or packaging in the food industry. This range includes systems for leak detection and contamination management as well as multi-stage vacuum systems and systems for testing pharmaceutical blister packs.

VACUUM GENERATION – TURBO PUMPS

Hybrid bearing turbo pumps

Magnetically levitated turbo pumps

Turbo pumping stations

SplitFlow turbo pumps

VACUUM GENERATION – BACKING PUMPS

Rotary vane pumps

Multi-stage Roots pumps

Dry process pumps

Roots pumping stations

LEAK DETECTION, VACUUM MEASUREMENT AND ANALYSIS

Leak detectors

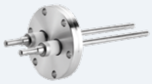
Mass spectrometers

Gauge heads

Gas analysis equipment

INSTALLATION ELEMENTS

Feedthroughs



Valves

Components

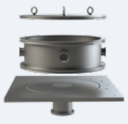
Manipulators

VACUUM CHAMBERS

Cylindrical, horizontal, and vertical

Cubical

Modular



VACUUM SYSTEMS

Integrity testing

Contamination management solutions

Multi-stage vacuum systems

SHARE PERFORMANCE

The Pfeiffer Vacuum shares were listed on the New York Stock Exchange in 1996, initially in the form of an ADR program, and have been traded on the German Stock Exchange in Frankfurt since April 15, 1998. The ADR program was discontinued in 2007 in order to concentrate the focus on the German listing.

Pfeiffer Vacuum satisfies the high transparency requirements of the Prime Standard and since its introduction has been included without interruption in the TecDAX – the index of the 30 most prominent technology companies measured by free-float market capitalization and liquidity – traded on the stock exchange in Frankfurt. All trading prices indicated in this Annual Report are Xetra trading prices.

BASIC INFORMATION ABOUT PFEIFFER VACUUM SHARES

Stock exchange segment	Prime Standard
Index	TecDAX
Deutsche Börse Symbol	PFV
ISIN	DE0006916604
Bloomberg Symbol	PFV.GY
Reuters Symbol	PV.DE
Further indices	HDAX, Mid Cap Market, CDAX, Prime Industrial, Prime All Share, Technology All Share

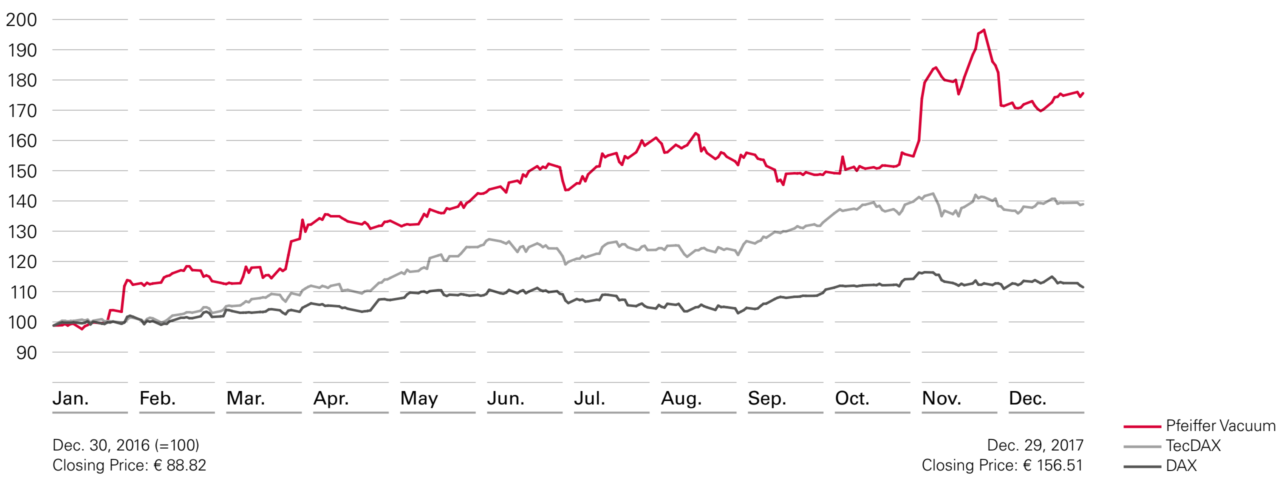
The stock market in 2017

2017 was a particularly strong year in terms of stock market performance. The positive development of the U.S. economy, underpinned by a comprehensive tax reform in the second half-year, was reflected in the strong quarterly performance of the U.S. technology sector. Fervent Bitcoin phantasies and M&A activity supported this, as did the ECB's decision to continue its bond purchases in 2018. The appreciation of the euro against the US dollar to a two-year high had only a short-term impact on the markets. Similarly, the first prime rate hike in the UK in more than ten years and the risk of a hard Brexit only impacted share prices temporarily. Overall, European stock markets notched up only below-average performance due to the strong euro. Overall, the DAX rose by 12.5 % and closed 1,436.58 points above the 2016 year-end level. In October, the German leading share index rose above the 13,000 mark for the first time since its inception and set new records in the months that followed. The MDAX recorded an increase of 18.1 %, while the TecDAX rose by 39.6 % and closed at 2,529.04 index points on December 30, 2017.

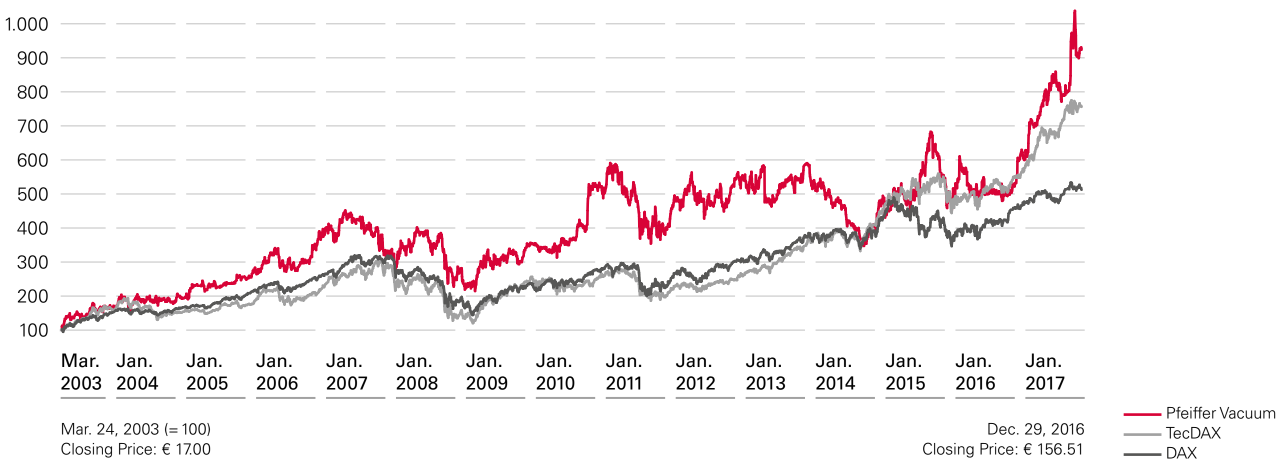
Pfeiffer Vacuum share performance in 2017

Over the year, the Pfeiffer Vacuum share price developed far more favorably than the DAX and TecDAX with an increase of 75.5 %. Including the annual dividend distribution, the Pfeiffer Vacuum share recorded an appreciation in value of 80.95 %. Over the same period, the TecDAX increased by 39.59 % and the DAX by 12.5 %. The Pfeiffer Vacuum share recorded an annual low of € 87.80 on January 9, 2018. The annual high of € 174.50 was reached on November 24, 2017. At year end, the share closed during trading at a price of € 156.15. In 2017, the trading volume was an average of 31,713 shares per day (2016: 29,891 shares per day).

RELATIVE SHARE PRICE DEVELOPMENT OF PFEIFFER VACUUM, TECDAX AND DAX IN 2017
in %



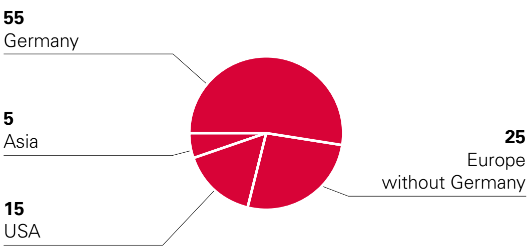
RELATIVE SHARE PRICE DEVELOPMENT OF PFEIFFER VACUUM, TECDAX AND DAX BETWEEN 2003 AND 2017
in %



Shareholder structure

As in the previous year, Pfeiffer Vacuum Technology AG recorded five investors with a shareholding of three percent or more in the 2017 fiscal year. According to its own statement, Pangea GmbH held an equity share of 38.96 % as of December 30, 2017. Allianz Global Investors GmbH, as the second largest shareholder, ended the year with a shareholding of 4.99 %. The Japanese industrial company Hakuto GmbH, whom Pfeiffer Vacuum has worked with at an operational level for decades, holds 3.48 % of the share capital. The state of Norway held an equity share in Pfeiffer Vacuum of 3.36 %. Universal Investment GmbH recorded a shareholding of 2.93 % at year end. Based on voting rights notifications, talks with investors and shareholder analyses, Pfeiffer Vacuum shareholders are distributed geographically in Germany (55 %), Europe without Germany (25 %), America (15 %) and Asia (5 %). The structure of investors is widely diversified. Shares in Pfeiffer Vacuum are held by investment funds, sovereign wealth funds, pension funds, banks, insurance companies, investment companies, wealth managers, family offices and private shareholders.

ESTIMATED REGIONAL DISTRIBUTION OF THE PFEIFFER VACUUM SHAREHOLDER STRUCTURE
in %



OVERVIEW OF HOLDINGS ACCORDING TO VOTING RIGHTS NOTIFICATION

in %	Dec. 31, 2017
Pangea GmbH, Maulburg	38.96
Allianz Global Investors, Frankfurt	4.99
Hakuto, Tokyo	3.48
The state of Norway	3.36

Earnings per share

Pfeiffer Vacuum's annual earnings of € 53.8 million represented an increase of 14.5 % over the previous year's figure of € 47.0 million. The earnings per share amounted to € 5.46. Based on the year-end closing price of € 156.15, this results in a price/earnings ratio of 28.6 % (December 30, 2016: 18.6 %).

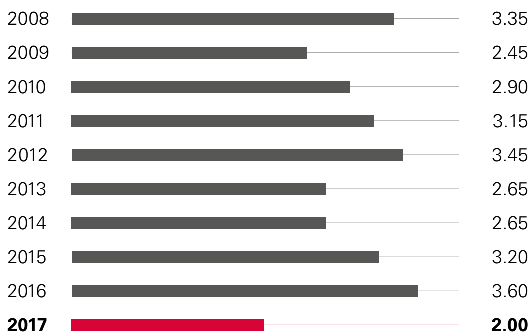
EARNINGS PER SHARE

		2017
Net income	in K€	53,848
Number of shares (weighted average)	in units	9,867,659
Earnings per share	in €	5.46

Dividend

The Management and Supervisory Boards will propose to the Annual General Meeting on May 23, 2018 that a dividend be distributed for fiscal 2017 in the amount of € 2.00 per share of no-par stock entitled to receive dividends. This represents a dividend ratio of around 37.0 % and a total payout amount of € 19.7 million. Subject to the consent of the Annual General Meeting, and on the basis of the year-end closing price of € 156.15 on December 30, 2017, this represents a dividend yield of 1.3 % (previous year: 4.1 %).

DIVIDEND DEVELOPMENT PER SHARE FOR THE LAST 10 FINANCIAL YEARS
in €



1 Subject to approval at the Annual General Meeting

Investor Relations

Consistently competent, professional, and reliable communication on all financial and corporate matters has always been of utmost importance to us in our dealings with our investors, private investors, and analysts. This is a contributing factor for ensuring that Pfeiffer Vacuum continues to be regarded as an attractive investment. With this, we would like to strengthen the confidence in our share and obtain a realistic and fair assessment.

At several roadshows in all major financial centers in both Europe and the United States, the members of the Management Board presented our business model, explained our Company's strategy, and answered questions. Moreover, we showcased our Company at many investor conferences. We also frequently conducted these conferences with two people in parallel one-on-one meetings to meet the high interest in personal interaction. Further activities included tradeshow visits and regular interaction with private shareholders. Numerous institutional investors and analysts from around the world paid frequent visits to our corporate headquarters. A press and analyst conference on our financial figures, four conference calls relating to announcements of our financial results, as well as ongoing exchanges with analysts, institutional investors, and private shareholders have characterized the work of investor relations. More than 13 analysts regularly follow our Company. At year´s end, there were five "Buy" recommendations, six "Hold" recommendations and three "Sell" recommendations at year-end 2017.

Last year's Annual General Meeting was attended by around 650 shareholders and guests. Shareholder presence was 67.40 % compared with 61.33 % the year before. Motions to approve and discharge the Management Board and Supervisory Board were put to the vote individually. One member of the Supervisory Board was not discharged, while all other items on the agenda were approved by a majority.

Ahead of the AGM, the shareholders were able to download all relevant documents, as well as the ballot sheet, from the broad information offerings on the Internet at group.pfeiffer-vacuum.com/agm

PFEIFFER VACUUM SHARE DATA

		2017	2016	2015	2014	2013
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 €	174.50	103.45	115.60	102.05	99.55
Lowest trading price	in €	87.80	75.28	65.69	56.21	76.50
Trading price at year-end	in €	156.15	88.82	93.55	68.60	98.93
Market capitalization at year-end	in € millions	1,540.84	876	923	677	976
Dividend per share	in €	2.00[1]	3.60	3.20	2.65	2.65
Dividend yield	in %	1.3[1]	4.1	3.4	3.9	2.7
Earnings per share	in €	5.46	4.77	4.25	3.29	3.53
Price/earnings ratio		28.6	18.6	22.0	20.9	28.1
Free float	in %	61.04	72.81	72.81	100.0	100.0

[1] Subject to consent of the Annual General Meeting

FINANCIAL REPORTING 2017

MANAGEMENT'S DISCUSSION AND ANALYSIS

2017 Course of Business

Profitability

- Net sales rose very noticeably by € 112.8 million or 23.8 % to € 587.0 million
- Organic growth and acquisitions as key revenue drivers
- Operating profit reached a record level with € 71.4 million, but special and one-time effects burdened the margin development
- Net income and earnings per share at the highest level in the Company´s history: € 53.8 million, resulting in earnings per share at € 5.46
- Sales forecast therefore exceeded, earnings forecast fulfilled, margin forecast only partially achieved

The development of sales in the past fiscal year 2017 was significantly influenced by two factors. The continued high level of momentum, particularly in the semiconductor market, led to strong organic growth. Further positive impulses came from the coating industry. In addition, the Group's net sales also grew due to acquisitions. At the beginning of the year, another 75.1 % of the shares in Dreebit GmbH, Dresden, Germany (Dreebit) and all shares in Advanced Test Concepts LLC., Indianapolis, USA (ATC), were acquired. In addition, in June 2017, Pfeiffer Vacuum acquired Nor-Cal Products Holdings, Inc., Yreka, USA, and its subsidiaries (together Nor-Cal). After € 474.2 million in the previous year, sales in the past fiscal year thus amounted to € 587.0 million. This corresponds to an increase of €112.8 million or 23.8 %. As a result, the noticeable increase in sales, formulated as a goal in last year's outlook without taking into account the acquisition of Nor-Cal, was also achieved even without the inclusion of the contributions concerning this matter. The substantiation of this forecast at the last Annual General Meeting after the Nor-Cal acquisition with an expected sales volume of € 520 – 540 million and also the updated forecast of overall sales of € 550 – 570 million was, in fact, slightly exceeded due to the constant demand dynamics in the semiconductor industry.

The gross profit and operating profit were also influenced by the organic growth and the acquisitions and were well above the previous year's figures. Thus, the gross profit increased by € 29.5 million from € 180.5 million to € 210.0 million and the operating profit at € 71.4 million is € 3.4 million above the previous year's figure (€ 68.0 million). Therefore, the forecast noticeable improvement in the operating profit was achieved in 2017. In contrast, the gross margin and the operating profit margin showed a year-on-year decline compared to the previous year: 35.8 % and 12.2 % after 38.1 % and 14.3 % in 2016. The decline in the margin development was partly due to the change in the customer mix, i.e., the increase in revenue with customers in low-margin markets. However, it must also be considered that the profitability was influenced by the effects of the subsequent valuation of the purchase price allocation. The purchase price allocation (in short: PPA) is the process whereby the assets and liabilities acquired as part of an acquisition are recorded at fair value as of the acquisition date. International Financial Reporting Standards (IFRS) require that this PPA is completed no later than in the first twelve months following the acquisition. Following the preliminary preparation of the interim reporting in 2017 using the carrying amounts of the net assets acquired, the fair values of the acquired net assets were determined retroactively as part of the PPA at the relevant effective dates of the acquisitions and were recorded at these effective dates in the adjusted opening balance sheet. Significant parts of the PPA adjustments as of the acquisition date related to intangible assets. Here, the previously unaccounted-for technology and customer base are of particular note. But this also resulted in valuation adjustments in the area of fixed assets and inventories. At the same time, the goodwill from acquisitions initially provisionally determined during the year declined. Since the newly recorded assets or added values are generally limited in their temporal use, a scheduled depreciation/amortization of these assets must be made. These additional effects on the income statement resulting from the PPA are hereinafter referred to as PPA effects and negatively affected the Group's operating profit in 2017 with a total of € 6.2 million. In the development of profitability, specifically in terms of the development of administrative and general expenses, it must also be taken into account that one-time expenses for, amongst others, advisory services in connection with two takeover offers and the acquisitions were incurred. The figures adjusted to reflect these special effects would be at the same level as in 2016. However, the projected significant improvement in the margin situation was not able to be achieved in view of the already mentioned effects from the customer mix.

Despite the financial liabilities taken out in connection with the Nor-Cal acquisition, the financial income was practically stable with – € 0.4 million. In view of the operating profit, earnings before taxes accordingly reached € 71.0 million. Last year's forecast of a parallel development of operating profit and earnings before taxes and thus the forecast of a significant increase in earnings before taxes was also achieved with this increase of € 3.4 million or 5.1 %. Taking into account a reduced tax ratio (24.2 % after 30.4 % in the previous year) and tax expenses of € 17.2 million (previous year: € 20.6 million), net income rose even more sharply by € 6.8 million or 14.5 % to € 53.8 million (previous year: € 47.0 million). After reaching a record high in the Company's history in the previous year, this figure was again significantly increased in 2017 and, as a result of an unchanged number of outstanding shares, it also resulted in hitherto unprecedented earnings per share of € 5.46 (previous year: € 4.77).

Financial position and liquidity

The renewed growth in business volume and the acquisitions also had an impact on the development of the financial position. Overall, the balance sheet total as at December 31, 2017 increased by € 94.1 million to € 553.4 million (previous year: € 459.3 million). In addition to the increase totaling € 65.1 million in tangible and intangible assets to € 217.8 million, inventories and trade accounts receivable also increased to € 113.4 million (+ € 31.6 million) and € 80.1 million (+ € 10.7 million), respectively. In contrast, cash and cash equivalents declined by € 12.6 million to € 97.4 million. On the liabilities side of the Consolidated Balance Sheet, the financial liabilities taken out in connection with the Nor-Cal acquisition, which as of December 31, 2017 still totaled € 60.3 million (previous year: € 0.2 million), had a particular impact. As in previous years, equity also rose again in 2017. After € 315.6 million as of December 31, 2016, this amounted to € 320.9 million at the end of fiscal 2017. That is an increase of € 5.3 million. As a result of the sharp increase in the balance sheet total, the equity ratio fell from 68.7 % to 58.0 % as of December 31, 2017.

One key parameter for the development of cash and cash equivalents was the increase in operating cash flow to € 71.4 million. In the context of capital expenditure, cash outflows, in particular, from acquisitions (€ 74.6 million) and other replacement and expansion investments (€ 27.7 million) were recorded, while in the financing activities area the dividend payment of € 35.5 million, the borrowing of financial liabilities to finance the Nor-Cal acquisition (€ 70.0 million) and the repayment of financial liabilities of € 15.2 million were of particular significance. Despite cash outflows for acquisitions, capital expenditures of € 27.7 million were practically at the level forecast in last year's outlook (€ 28.0 million). As of December 31, 2017, cash holdings amount to € 97.4 million and financial liabilities amount to a total of € 60.3 million. On a net basis, the Group thus remains debt-free. We consider the very sound financial position of the Group as an essential basis for further sustainable profitable growth and, therefore, we are able look ahead to the future with great confidence.

Management and Supervisory Boards propose to pay out a dividend of € 2.00 per share for the fiscal year 2017 (previous year: € 3.60 per share). This would mean that € 19.7 million or 36.6 % of the Group's net income are distributed to the shareholders.

Economic Conditions 2017

Overall economic development

World economy

The global economy showed a slight improvement in 2017 compared to the previous year, based on positive impetus already noted in the second half of 2016. According to the latest estimates of the International Monetary Fund (IMF), global growth should have been nominally 3.7 % (previous year: 3.1 %). In the emerging and developing countries, growth was expected to be at 4.7 % (previous year: 4.2 %). In industrialized countries, on the other hand, the gross domestic product accelerated to an average of 2.3 % (previous year: 1.6 %).

Europe

Along with the global economy improvement, economic growth in the eurozone developed positively in the course of 2017. Accordingly, the gross domestic product rose by 2.4 % (previous year: 1.6 %) and thus also influenced the development of the industrialized countries as a whole. The economic recovery was quite broad and benefited from the increase in private consumer spending. Despite historically low interest rates and slightly improved corporate sentiment, investments developed rather below average. The export business was also adversely affected by the development of the euro/US dollar exchange rate, mainly during the second half of 2017. Parallel to the eurozone development as a whole, the two major national economies in the EU also showed gratifying growth. Although gross domestic product increased less strongly in France at 1.8%, however, there was a positive trend compared to the previous year (1.2 %). The German economy grew by 2.5 % in 2017, slightly better than the eurozone as a whole. After 1.9 % in the previous year, the development was, therefore, relatively robust. In 2017, the strongest stimulus again came from consumption. The unemployment rate, already at a low level, dropped from 6.1 % on average in 2016 to 5.7 % in 2017. At the same time, the number of employed persons continued to rise, reaching another record high of 44.7 million at the end of 2017.

USA

Despite rising interest rates and uncertainty surrounding the new U.S. president, the U.S. economy increased its economic output in 2017 by 2.3 % compared to the previous year (1.6 %). The unemployment rate dropped from 4.9 % in 2016 to 4.1 % and had a positive effect on consumption propensity. Over the course of the year, the U.S. Federal Reserve Bank slightly raised the base interest rate several times and held out the prospect of further measures. After the election of Donald Trump as the U.S. President at the end of 2016, economic policy remains an uncertainty factor. The effects of the U.S. tax reform cannot yet be conclusively assessed in terms of its economic significance for the U.S.

Asia

Against the backdrop of a continued expansive fiscal policy, Japan was able to increase its economic output to 1.8 % (previous year: 0.5 %). In the third quarter, in particular, improved momentum was felt. In 2017, the recent weaker economic development in China improved slightly. According to official figures, the Chinese economy grew by 6.8% (previous year: 6.6 %). This was still distinctly higher than the global average, but far below earlier growth rates. India, on the other hand, recorded a slight slowdown in growth momentum, with growth falling from 7.6 % in the previous year to 6.7 %.

Mechanical engineering and the vacuum industry

In the first eleven months of 2017, production in the German mechanical and plant engineering sector clearly surpassed the previous year's level with a real gain of 3.0 %. Overall, the sentiment can be described as confident, as the real change in incoming orders also showed a significant increase of 8.0 %. At the same time, capacity utilization increased from 84.6 % to 87.9 % (as of the end of October).

The full-year results for exports of machinery and plant were not yet available for 2017. In the first ten months, they were 6.3% higher in real terms than in the previous year. Based on the entire year, this very positive development will be confirmed based on assessments.

The number of people employed in the German mechanical and plant engineering sector in October 2017 amounted to about 1,028,000. This equals an increase of around 11,000 employees compared to October 2016. At the same time, the number of short-time workers fell by 56.0 %.

Vacuum technology is used in many industries. Accordingly, the vacuum industry is also to be considered against the backdrop of global economic development. However, there were considerable differences within the market segments that are important for the vacuum industry: the cyclical semiconductor industry, for example, displayed a sustained high willingness to invest. A similar positive development could be recorded in 2017 in the areas of coating and analytics. The areas of research & development and industry stagnated at the high level of the previous year.

The Pfeiffer Vacuum Group

Operations

Pfeiffer Vacuum is a leading supplier of vacuum solutions. The product portfolio is marketed under the Pfeiffer Vacuum and adixen product brands and includes all components and systems for vacuum generation, measurement, analysis and leak detection. The products of both brands complement each other perfectly so that we can offer clients customized vacuum solutions that are tailored to their individual requirements. The name Pfeiffer Vacuum stands globally for innovative and customized vacuum solutions as well as superior engineering, expert consultancy, and reliable service.

With our technologically advanced turbopumps and backing pumps, we set the standards in our industry. This claim to leadership will continue to be our driving force in the future. Our products cover a wide range of pumps including vacuum generation pumps, vacuum chambers, vacuum measurement and analysis equipment, installation components as well as complete vacuum systems. With the help of our products, vacuum pressure conditions similar to those in outer space are created which are essential for research, various industrial processes, and for manufacturing many everyday objects.

We are a machine engineering company that designs high-tech products of the highest quality and manufactures them predominantly for export markets. Besides the two main design and production sites in Asslar, Germany, and in Annecy, France, the Pfeiffer Vacuum Group has an extensive network of its own sales and service companies. The Company's primary markets are in Europe, Asia and the USA.

Corporate Group structure and organization

As of December 31, 2017, 32 companies belonged to the Pfeiffer Vacuum Group compared to 21 in the previous year. The changes are a result of the acquisition of Nor-Cal Products Holdings Inc., Yreka, California, U.S. and its subsidiaries as well as Advanced Test Concepts LLC., Indianapolis, Indiana, U.S. and Dreebit GmbH, Dresden, Germany that occurred during this fiscal year. Additionally, in connection with property acquisitions in the U.S., a total of three real estate companies were established. Furthermore, Pfeiffer Vacuum Malaysia SDN. BHD. was founded in Kulim, Malaysia. adixen Vacuum Technology (Shanghai) Co., Ltd., China, was liquidated.

Pfeiffer Vacuum GmbH, Asslar, Germany, and Pfeiffer Vacuum SAS, Annecy, France, play a central role in the Corporate Group. Pfeiffer Vacuum GmbH organizes the development and manufacture of all Pfeiffer Vacuum products, is the distributor for Germany and also manages central equity investments for the Corporate Group. As at December 31, 2017, the Company employed a total of 728 employees. Pfeiffer Vacuum SAS is, in a sense, the French equivalent of Pfeiffer Vacuum GmbH. The Company employed 667 employees at year's end, is the main development and production facility for adixen products, and is responsible for sales in France. A total of 1,395 employees work in these two companies. This represents nearly half of all workers employed in the entire Corporate Group (2,945 at the end of 2017).

What is more, Pfeiffer Vacuum Components & Solutions GmbH, Pfeiffer Vacuum Semi Korea Ltd., and Pfeiffer Vacuum Romania S.r.l. are tasked with the manufacturing and assembly of own products. As a result of the acquisitions that took place during this fiscal year, the number of corporate subsidiaries with their own production sites has increased. To be mentioned in particular are Nor-Cal Products, Inc. and Advanced Test Concepts, LLC., as well as Nor-Cal Products Viet Nam Co., Ltd.

The overall corporate structure as at December 31, 2017, was as follows:

THE PFEIFFER VACUUM CORPORATE GROUP AS OF DECEMBER 31, 2017

	Headquarters	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	99.4
Pfeiffer Vacuum (Shanghai) Co., Ltd.	China	100.0
Pfeiffer Vacuum (India) Private Ltd.	India	27.0 [1]
Pfeiffer Vacuum Ltd.	Great Britain	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.	The Netherlands	100.0
Pfeiffer Vacuum (Xi'an) Co., Ltd.	China	100.0
Pfeiffer Vacuum Malaysia SDN. BHD.	Malaysia	100.0
Pfeiffer Vacuum Inc.	USA	100.0
Advanced Test Concepts, 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 Europe Ltd.	Great Britain	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 Indiana Realty Holdings, LLC.	USA	100.0
Pfeiffer Vacuum New Hampshire Realty Holdings, LLC.	USA	100.0
Pfeiffer Vacuum Holding B.V.	The 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	75.5 [1]
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 Semi Korea, Ltd.	Republic of Korea	100.0
Pfeiffer Vacuum Korea Ltd.	Republic of Korea	24.5 [1]
Dreebit GmbH	Germany	100.0

[1] Group shareholding in total 100.0 %

The remaining Corporate Group companies are legally independent corporations that are active in sales and service tasks. Essentially all companies are legally organized in a form that can be compared to a German limited liability company (GmbH).

Information pursuant to § 315a Sub-Para. 1 HGB

The subscribed capital of Pfeiffer Vacuum Technology AG as at December 31, 2017 was unchanged at K€ 25,261 and consists of a total of 9,867,659 no-par value 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, 2017, Dr. Karl Busch, Ms. Ayhan Busch, Ms. Ayla Busch, Mr. Sami Busch and Mr. Kaya Busch, all of Germany, according to their own statements, had a total of 38.96 % of the shares of the Company (previous year: 27.19 %). Further information is not available at the time. The shares are held indirectly through Pangea GmbH, Maulburg, Germany, and further independent legal entities belonging to the family-run Busch Group and are deemed to be held by the persons named. To our knowledge, there were no further shareholders with a holding of more than 10.0 % as at December 31, 2017 and also as at December 31, 2016.

Amendments to the Articles of Association can be decided at the Annual General Meeting by a simple majority of voters present at the meeting unless the law mandates a larger majority. To our knowledge, there are no restrictions with regard to voting rights or with regard to the transfer of shares. Management Board members, according to the Articles of Association and §§ 84, 85 German Stock Corporation Act ("AktG"), are appointed by the Supervisory Board for a maximum term of five years. Reappointments or extensions to the tenure period are permitted for a maximum of five years in each case.

Through a resolution of the Annual General Meeting on May 24, 2016, the Management Board was authorized to increase the subscribed capital once or repeatedly by € 12,630,602.24 or 4,933,829 shares, in exchange for cash or contributions in kind (authorized capital). This authorization is valid until May 23, 2021 and requires the consent of the Supervisory Board.

According to the resolution of the Annual General Meeting on May 22, 2014, the Management Board is authorized to issue fractional bonds with option or conversion rights 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 Company having a pro-rata amount of up to € 6,315,299.84 of the share capital. This authorization is valid until May 21, 2019, and requires the consent of the Supervisory Board.

At the Annual General Meeting on May 21, 2015, the shareholders authorized Pfeiffer Vacuum to buy back treasury shares in accordance with § 71 Sub-Para. 1, No. 8, German Stock Corporation Act ("AktG"). This authorization covers the buyback of a proportionate amount of the Company's share capital of up to € 2,526,120.70 (986,766 shares, representing 10 % of the share capital at the time the resolution was adopted), requires the consent of the Supervisory Board for execution and is valid through May 20, 2020. The Corporate Group does not own treasury shares as at December 31, 2017 and 2016.

For information relating to the employment contracts with the members of the Management Board, please refer to the corresponding paragraphs in the compensation report.

There are no further aspects that would require discussion within the context of § 315a Sub-Para. 1 HGB.

Markets and market position

Sales by markets

Products from Pfeiffer Vacuum are employed in numerous industry markets. Over 14,000 customers trust in the reliability of our products. Pfeiffer Vacuum divides these customers into the following markets: semiconductor, industry, coating, analytics, and research & development (R&D). As far as the positioning of these markets is concerned, only a limited amount of data is available regarding the size of the entire market and individual market segments. Based on surveys conducted by the German Engineering Federation (VDMA) as well as our own estimates, we expect to take the leading market position in the market segments of industry, coating, analytics, and research & development. In the semiconductor market segment, we should rank second.

Without vacuum technology, a number of innovative processes would be inconceivable, such as in nanotechnology, in producing LEDs or in scientific research. Many of these new technologies create innovative products and production processes. Strong advances in people's personal and professional communication patterns, for example, are bringing forth ever more new technologies in the semiconductor industry. The rising demand for energy coupled with the need to conserve resources is leading to a steadily increasing amount of new developments in the field of energy supply. These, and further social and industrial trends, are typically producing additional market-

APPLICATION EXAMPLES

Semiconductor	Industry	Analytics	R&D	Coating
Lithography	General applications	Mass spectrometers	Renewable energies	Solar cell technology
Metrology	Electron beam welding	Electron microscopy	Nanostructures	Display coating (LED, OLED)
CVD (chemical Vapor Deposition)	Freeze drying	Surface analysis	Particle accelerator technology	Data storage
PVD (physical Vapor Deposition)	Vacuum drying	Gas analysis	Space simulation	Glass coating
Etching	Steel degassing	Biotechnology	Plasma technology	Surface protection
Ion implanter	Leak detection	Life science	Particle physics	Tool coating

ing opportunities for Pfeiffer Vacuum. Our strengths include the ability to serve all markets, which makes us largely independent of developments in individual market segments.

Semiconductor

Our vacuum pumps are needed in the semiconductor industry for the production of microprocessors and handling systems. Customers in this industry predominantly require a large number of medium-sized and large backing pumps, but also turbopumps, as well as measurement equipment. Chip manufacturers can significantly increase their yield with our decontamination systems. The semiconductor industry itself particularly benefits from the changes in communication technology. New fields of application for vacuum arise, for example, in nanotechnology. Our customers are increasingly located in Asia, and also in the United States, as well as – to a lesser extent – in Europe.

Industry

In this segment, we combine a heterogeneous category of industrial customers who require our vacuum solutions for specific production steps. Industrial trends such as quality improvement, energy supply and conservation, mobility or environmental protection are currently leading to new fields of application. Examples include metallurgy, tube production, as well as air conditioning and refrigeration technology. A further field of application is solar thermal energy. The absorber tubes needed for this technology are evacuated by using our pumping stations as well as continuously being tested for leaks with our leak detectors. Our customers in the industrial segment primarily come from Europe, as well as from the United States, and increasingly from Asia.

Analytics

Our largest customers in this market are so-called OEM (Original Equipment Manufacturer) customers, i.e. manufacturers of industrial systems or analytical instruments. Complex analytical devices such as scanning electron microscopes are primarily employed for industrial quality control. This industry is characterized in particular by megatrends such as Life Science, Biotechnology, and Security. Ever smaller and lighter portable analyzers are required in environmental technology, in security technology or for doping analyses. The analytical industry therefore typically requires small and medium-sized turbopumps along with backing pumps and measurement equipment. Our major customers in this market are located in the United States, Japan, the United Kingdom, and Germany.

Research & Development

Collaboration with research facilities enjoys a long tradition at Pfeiffer Vacuum. Whether in physics or chemistry laboratories at universities, prominent research institutions like the Fraunhofer and Max Planck Institutes or in large multinational research facilities – all of them rely upon the quality and dependability of our mass spectrometers, leak detectors, or vacuum solutions. Working in close cooperation with research facilities in Europe, the United States, and Asia, new applications arise continuously in the fields of energy supply or healthcare technology.

Coating

Without vacuum, many things that are used in daily life could not be produced in the desired quality. The antireflective coatings on eyeglass lenses, the coatings within flat screen manufacturing, the coatings on Blu-ray discs or on high-quality bathroom faucets and fittings as well as the coatings on solar cells or architectural glazing are produced in vacuum chambers, for example. High-quality tools are coated and hardened under vacuum to make them even more durable. One significant megatrend in this segment is the orientation towards regenerative energies, such as solar energy. What is predominantly required in the coating industry are medium-size and large backing pumps and turbopumps as well as measurement equipment and complete vacuum systems. Our customers are located in all industrial nations.

Strategy and control

Strategy

Pfeiffer Vacuum develops, produces and distributes vacuum solutions that are highly challenging in terms of technology, quality, reliability, service life, and performance; all are attributes that our customers associate with products from Pfeiffer Vacuum. The Company's long-term strategic objectives include selling its products on the basis of quality, not price. The sales strategy also includes stressing the long-term total cost of ownership advantages over the life of a Pfeiffer Vacuum product ("Total Cost of Ownership"). These stem, among other things, from lower maintenance and repair costs, longer service lives and lower energy consumption in comparison with rival products.

A further strategic objective is to always be close to the customer. We live up to this objective through our worldwide presence, and we assure that everything we do always focuses squarely on our customers.

Corporate Management

The Management Board of Pfeiffer Vacuum Technology AG assumes responsibility for the strategic leadership of the Corporate Group.

The Group companies were allocated to the business units "Semiconductor & Coating" or "Analytics & Industry" according to the focus of their operations and the market potential. They are directly subordinated to this business unit, and their comprehensive regional responsibility for all market segments continues to apply unchanged.

All subsidiaries in the Group therefore have self-directed managements and essentially make their own decisions within central guidelines on how to attain the targets that have been defined by Corporate Headquarters and the business unit (sales, EBIT margin and earnings before taxes). The supervisory bodies of the subsidiaries, whose composition also includes members of the Management Board of Pfeiffer Vacuum Technology AG, the heads of the business units or Headquarters in Asslar, Germany, must be involved in the case of major decisions.

Steering instruments

All subsidiaries are steered by Corporate Headquarters in Asslar through the stipulation of annual sales and profitability targets ("Management by Objectives"), and thus primary steering lies with the legal entities in the regions. The achievement of these targets is monitored by means of detailed target/actual comparisons and variance analyses within the framework of monthly reporting, which was expanded to market information, to additionally take account of the requirements of the business unit structure. This ensures that undesirable trends will be identified and corrected early on. Monthly conference calls with the management of the subsidiaries additionally ensure that all business development questions are discussed. In addition, face-to-face meetings with staff at the local site are held by Group and business unit management. For countries in which Pfeiffer Vacuum is not represented directly through a subsidiary, the 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 consists of the variable remuneration of the local management of the non-German subsidiaries and of the sales staff. This sensitizes employees to cost structures, and so to the Company's long-term success, even if they do not work in areas of the Company which have a direct influence on sales.

Profitability, Financial Position, and Liquidity

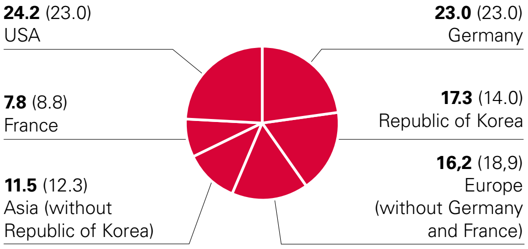
Development of sales in 2017

After a very satisfactory fiscal 2016 in terms of revenue development, the year 2017 showed a further, this time very noticeable improvement in revenues to a record level of € 587.0 million. This corresponds to an increase of € 112.8 million or 23.8%, which is attributable both to organic growth, mainly in the semiconductor industry, as well as to growth as a result of corporate acquisitions.

Presented below are net sales by segment, region, product and market for 2017. It should be noted with respect to net sales by segment that the sales shown in this presentation are allocated on the basis of the registered office of the Company that invoiced the sales. Therefore, the segment-based presentation shows net sales by subsidiary. On the other hand, net sales by region include all sales in a specific region, regardless of which subsidiary within the Pfeiffer Vacuum Group invoiced the sales. Net sales by segment and net sales by region will differ from each other to a greater or lesser extent. In the Asia segment, for example, net sales differ significantly from those recorded for the Asia region, since the Asia segment includes only the direct sales of our Asian subsidiaries. In contrast, the Asia region additionally contains sales that the manufacturing companies generate directly with Asian customers – for example, with customers in Japan or India. In the case of net sales by segment, the sales generated by the German Company through direct deliveries to agents and/or customers outside Germany are significantly higher than German sales by regions. Sales in the Americas region and the USA segment, on the other hand, are nearly identical because virtually all sales in this region are handled by our American subsidiaries.

Sales by Segment

SALES BY SEGMENT
in %, (previous year)



USA

Particularly due to the acquisition of Nor-Cal and ATC in fiscal 2017, but also as a result of the organic growth of our existing American sales subsidiary, the USA segment recorded a disproportionately favorable sales development. In particular, the organic growth and the development of Nor-Cal Products, Inc. were due to the dynamic development of the semiconductor industry, while the analytics segment stagnated at a high level. The development of the U.S. dollar exchange rate in 2017 had a slightly negative impact on sales development in the USA.

SALES BY SEGMENT

	2017	2016	Change	
	in € millions	in € millions	in € millions	in %
USA	142.1	108.9	33.2	30.5
Germany	134.8	109.3	25.5	23.3
Republic of Korea	101.3	66.5	34.8	52.2
Europe (without Germany and France)	95.1	89.4	5.7	6.3
Asia (without Republic of Korea)	68.2	58.3	9.9	16.9
France	45.5	41.8	3.7	9.1
Total	**587.0**	474.2	112.8	23.8

As a result of the disproportionately high growth, the share of sales in the past fiscal year 2017 amounted to 24.2 % (previous year: 23.0 %). This puts the USA segment ahead of Germany (23.0 % share of sales).

Germany

Following a pleasing increase of around € 4.9 million in the previous year, sales in the Germany segment again improved significantly in 2017 and recorded double-digit growth rates both in € million and in percent. Significant impulses came from Pfeiffer Vacuum GmbH and Pfeiffer Vacuum Components & Solutions GmbH. In addition, the acquisition of Dreebit GmbH in the year under review contributed to this outstanding development.

Republic of Korea

In general, the sales subsidiaries in the Republic of Korea segment showed a strong focus on the semiconductor market. Based on the high momentum in this market, sales revenues here developed particularly well and this segment showed the strongest growth in both absolute and relative terms. In addition, this development was slightly positively influenced by the exchange rate of the Korean won, while the corporate acquisitions had only a very insignificant impact here.

Europe (without Germany and France)

Although sales revenues in Europe were influenced by the acquisition of Nor-Cal, by far the largest share of growth was recorded by the established sales subsidiaries. Of particular note is the growth achieved by the sales subsidiaries in the Netherlands and England. This must be seen against the weakness of the British pound, which had a negative impact on sales performance. Beyond the consequences of an unfavorable exchange rate development, we do not as yet detect any adverse effects on sales revenue resulting from Britain's exit from the European Union.

Asia (without the Republic of Korea)

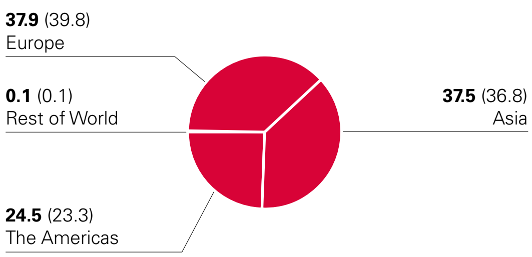
The development in the Asia segment (without the Republic of Korea) was mainly due to the growth in sales recorded by the local business unit in China, which experienced a marked increase in demand from the semiconductor and coating segments. The acquisition of Nor-Cal (in this case the business unit in Singapore) also influenced the development positively.

France

With an increase of € 3.7 million, sales in France displayed an encouraging trend. It should be noted that, unlike in part in previous years, this development was caused by demand in France itself and is based exclusively on organic growth.

Sales by Region

SALES BY REGION
in %, (previous year)



Europe

Sales development in Europe was very satisfactory. Particularly noteworthy is the development in Germany. However, we were also able to achieve pleasing sales increases with our customers in the Netherlands and in England. Moreover, it should be borne in mind that in addition to organic growth in this region,

SALES BY REGION

	2017	2016	Change	
	in € millions	in € millions	in € millions	in %
Europe	222.5	188.9	33.6	17.8
Asia	220.3	174.6	45.7	26.2
The Americas	143.8	110.5	33.3	30.1
Rest of World	0.4	0.2	0.2	100.0
Total	**587.0**	474.2	112.8	23.8

the initial consolidation of Dreebit also had a positive influence on the development of sales.

Asia

As in the previous year, the considerable improvement in demand from the semiconductor industry particularly impacted the development of sales in the Asia region. This region has thus been on a stable path of growth since 2014, and this was particularly influenced in 2017 by our customers in South Korea and China. In addition, the development of sales was further enhanced by the already strong position of Nor-Cal in Asia, while demand in Japan declined slightly. The overall increase in sales of € 45.7 million also meant that the Asia region has virtually caught up with Europe in terms of its share of total sales.

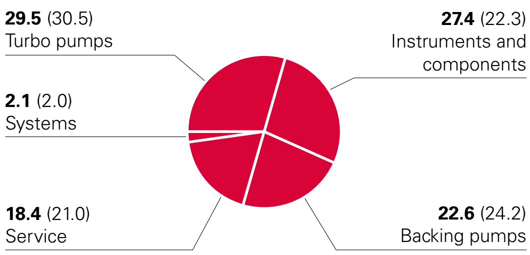
The Americas

With an increase of € 33.3 million or 30.1 %, this region developed very positively under the influence of a variety of factors. Due to the strong focus placed on this region by Nor-Cal and ATC, which were acquired in the year under review, large portions of the increase can be attributed to external growth. At the same time, however, sales with our existing semiconductor customers in the United States also developed extremely well, while a downward trend was recorded in the Industry and Research & Development market segments. The development of sales in the Americas continued to be affected essentially by the development in the USA. Since there is still virtually no direct business by the German or French units in this region, this development largely conformed to the previously explained course of sales according to segments. In line with the development of sales in North and South America, the share of total revenue also rose slightly from 23.3 % in the previous year to 24.5 % in the year 2017.

Sales by Product

SALES BY PRODUCT

in %, (previous year)



Turbo pumps

On the basis of an already high level of sales in 2016, sales in this product group again significantly increased by 20.0 %. The analytics market segment continued to account for the largest share of sales, but in 2017, it recorded somewhat more restrained momentum than the coating market or the semiconductor industry. With a share of total sales of 29.5 % (previous year: 30.5 %), the turbopumps remained the strongest product group in 2017 as well.

Instruments and components

With an increase of € 55.1 million or 52.2 %, the Instruments and Components product group showed the largest increase in both absolute and relative terms in the past fiscal year. This development was due principally to the acquisitions of Nor-Cal as well as to ATC. At the same time, however, we also recorded very pleasing organic growth, especially concerning the products of Pfeiffer Vacuum Components & Solutions GmbH and leak detectors.

SALES BY PRODUCT

	2017	2016	Change	
	in € millions	in € millions	in € millions	in %
Turbo pumps	173.4	144.5	28.9	20.0
Instruments and components	160.6	105.5	55.1	52.2
Backing pumps	132.8	115.0	17.8	15.5
Service	107.8	99.7	8.1	8.1
Systems	12.4	9.5	2.9	29.8
Total	**587.0**	474.2	112.8	23.8

With a considerably increased share of 27.4 % of total sales (previous year: 22.3 %), this product group developed into an important mainstay of Pfeiffer Vacuum and now contributes even more to a very balanced distribution of sales revenue according to product groups.

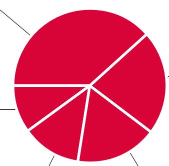
Backing pumps
As in the previous year, so-called process pumps for the semiconductor industry, together with dry pumps for coating applications, made the largest contribution to the very good sales development in 2017. Accordingly, in regional terms, the increase resulted particularly from the Asian economic area, but also to a lesser extent from Germany. Due to the disproportionately low increase in comparison with the overall sales development, the share of total sales revenue also declined slightly from 24.2 % to 22.6 %.

Service
The installed basis of products from the Pfeiffer Vacuum Group creates a sound foundation for our service activities. The partly aggressive and corrosive process conditions under which the pumps are used, particularly in the semiconductor industry, make regular maintenance an absolute necessity. Similarly to the previous years, the 8.1 % increase in 2017 also resulted primarily from increased sales to our semiconductor customers. This also included the customers of Dreebit, which was acquired in the year under review. As always in years with a good business development in the area of product sales, the increase in service revenues in 2017 was also less than proportional to the development of total revenues. Accordingly, the share of total sales also fell slightly from 21.0 % to 18.4 %.

Systems
Sales in this project-driven sector rose slightly from € 9.5 million in the previous year to € 12.4 million in the past fiscal year. A share of the sales development is also attributable to the purchase of Dreebit and its system division.

Sales by Market

SALES BY MARKET
in %, (previous year)



Semiconductor
The semiconductor industry continued to develop dynamically. In addition, the acquisition of Nor-Cal had a positive influence on the development of Pfeiffer Vacuum sales revenues in this market. The Group's main impetus in the semiconductor market came once again from Asia and the USA in 2017, but growth was also achieved in Europe. Overall, we recorded a very sharp increase in sales revenues of € 70.7 million, or 45.6 %.

Industry
Our most heterogeneous market segment includes a broad spectrum of customers ranging from the

SALES BY MARKET

	2017	2016	Change	
	in € millions	in € millions	in € millions	in %
Semiconductor	225.4	154.7	70.7	45.6
Industry	129.1	115.9	13.2	11.4
Analytics	100.1	92.1	8.0	8.7
Coating	74.2	55.4	18.8	33.9
Research & Development	58.2	56.1	2.1	3.7
Total	**587.0**	474.2	112.8	23.8

automotive and metalworking industries to the food industry. This market segment performed a sideways movement with a modest upward trend in fiscal 2017. In view of the heterogeneous nature of this market segment, positive and negative trends are balanced out extremely well, both in individual sectors and regionally. Nevertheless, the fact that we were able to record an increase in sales revenues of € 13.2 million is principally due to the acquisitions of Nor-Cal and ATC.

Analytics
Starting from an already high level of sales of € 92.1 million in the previous year, a further increase to € 100.1 million was achieved in the year under review. In regional terms, this was mainly due to the developments in Germany and Europe, while initial consolidation effects were not recorded. Our customers in this sector use the whole spectrum of products, even if the focus is on turbopumps. The ongoing high level of turbopump sales is substantially impacted by this market segment.

Coating
The solar industry remained of great importance for the coating market in general. Pleasing growth was attained here again in 2017, albeit less pronounced due to the solar industry than in previous years. In regional terms, Germany in particular stands out in this development.

Research & Development
At € 58.2 million, sales in the research & development market segment – our most stable market segment – lay slightly over the previous year's level (€ 56.1 million). Due to the high number of state-owned and partly state-owned research institutes, this segment developed largely independently of economic trends. Also typical is the development within the fiscal year with a slightly more restrained start to the year and a stronger fourth quarter, which was also observed in 2017.

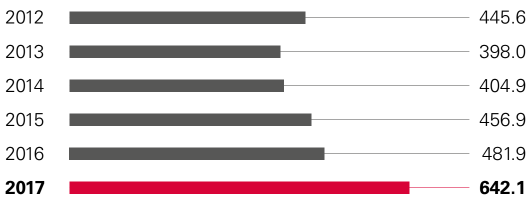
New orders and orders on hand

After new orders of € 481.9 million in 2016, this figure increased to € 642.1 million in 2017. This corresponds to a significant increase of € 160.2 million or 33.2 %. This pleasing development was recorded in virtually all product areas, but was also heavily influenced by the newly acquired companies. Based on an already strong fourth quarter of 2016, the year-to-date performance in 2017 was consistently good with even greater momentum in the fourth quarter of 2017.

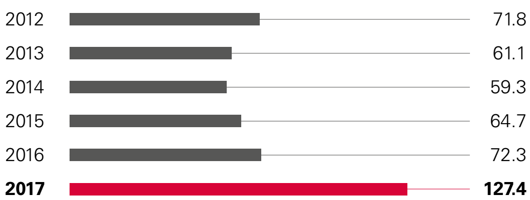
According to information from the first weeks of 2018, this momentum is continuing at least at the beginning of the current fiscal year. The book-to-bill ratio, the ratio between new orders and sales, stood at 1.09 in 2017 compared to 1.02 in the previous year.

The order volume on hand as at December 31, 2017 totaled € 127.4 million and lay 76.2% over the previous year's figure of € 72.3 million. The visibility of orders on the basis of average sales in 2017 remains unchanged at about two months.

DEVELOPMENT OF ORDER INTAKE
in € millions



DEVELOPMENT OF ORDER BACKLOG
in € millions



Earnings development

Gross profit and cost of sales

At € 376.9 million, the cost of sales increased by a total of € 83.1 million or 28.3 % in 2017 compared to the previous year's figure of € 293.8 million. This increase was predominantly due to the growth in sales revenues, which made it possible to realize economies of scale. However, the first-time recording of the newly acquired companies in the consolidated financial statements led to an increase in the cost of sales, in particular, due to the PPA effects. The PPA effects additionally recorded within the cost of sales in 2017 amounted to a total of € 4.8 million. Moreover, the change in the customer mix led to an additional increase in the cost of sales. Overall, the development of the cost of sales compared to the development of sales was disproportionately high, resulting in a slight decrease in the gross margin – the ratio of gross profit to sales revenues.

In absolute terms, the outstanding gross profit of € 180.5 million in the previous year increased again to € 210.0 million in the past fiscal year. The gross profit therefore increased by € 29.5 million or 16.4 %. The gross margin decreased for the reasons explained from 38.1 % in the previous year to currently 35.8 %. In addition to the effects referred to previously from the customer mix, economies of scale and PPA, the stronger euro during the course of the year also had a negative impact on the development of the gross profit and the gross margin.

GROSS PROFIT
in € millions

GROSS MARGIN
in %

Selling and administrative expenses:

The total figure for selling and administrative expenses of € 112.3 million in 2017 was € 21.2 million higher than the previous year's figure (€ 91.1 million). This represents an increase of 23.3%. Despite the PPA effects recorded here, selling and marketing expenses increased less than sales (+ 14.4%), while administrative and general expenses developed disproportionately (+ 37.1%). The main reason for the increase in administrative and general expenses lay in, amongst others, the one-time advisory expenses in connection with the takeover offers and the company acquisitions made. Yet, the share of selling and administrative expenses of total sales declined and accounted for 19.1 % in the past fiscal year (previous year: 19.2 %).

Research and development expenses

We are continuously committed to advancing the development of vacuum technology through our own research projects as well as by rigorously fostering teaching and science. We view research and development expenses as an indispensable investment for the future. Accordingly, a high share of sales was expended for research and development activities again in 2017. After 5.5 % in the previous year, this percentage share still amounted to 4.7 % as a result of the excellent development of sales. In absolute terms, the research and development expenses totaling € 27.8 million in the past fiscal year lay € 1.5 million over the previous year's figure of € 26.3 million. PPA effects were only of secondary importance.

Adjusted for funds obtained through grants for research and development services with an amount of € 3.1 million (previous year: € 4.4 million), the net research and development expenses totaled € 24.7 million (previous year: € 21.9 million).

Other operating income and expenses

As in previous years, other operating income and other operating expenses principally included the Group's foreign exchange gains and losses. The other operating income of € 10.3 million (previous year: € 10.8 million) in addition contained subsidies for expenses of € 3.1 million (previous year: € 4.4 million) and miscellaneous income of € 1.4 million. The other operating expenses of € 8.9 million (previous year: € 6.0 million) in 2017 also contained virtually only the foreign exchange losses recorded. The net foreign exchange results in 2017 at € – 3.0 million were well below the previous year's figure of € + 0.4 million.

Operating profit

With € 71.4 million in 2017, the highest ever operating profit of the long Company history was achieved. On the basis of a record turnover of € 587.0 million, the effects of the customer mix, the PPA effects and a decline in the foreign exchange results had a noticeable negative effect, however, on earnings in 2017. In contrast, positive effects on the operating profit resulted from economies of scale in the area of cost of sales and, despite some one-time effects, also from the slightly disproportionately low increase in selling and administrative expenses. Compared to 2016, the operating profit therefore increased significantly overall by € 3.4 million or 5.0 % from

€ 68.0 million. This corresponds to an operating profit margin, or EBIT margin, of 12.2 % (previous year: 14.3 %). Adjusted to account for the PPA effects additionally included in the operating profit totaling € 6.2 million, the operating profit in 2017 would have amounted to € 77.6 million and have resulted in an EBIT margin of 13.2 %.

The amount of depreciation and amortization (for tangible and intangible assets) included in this figure was recorded at € 20.8 million for 2017 (previous year: € 20.4 million), which resulted in an operating profit before depreciation and amortization (earnings before interest, taxes, depreciation and amortization, or EBITDA) of € 92.2 million. After € 88.4 million in 2016, this represented an increase of € 3.8 million or 4.3 %. On the other hand, the operating profit per employee fell slightly.

OPERATING PROFIT
in € millions

EBIT MARGIN
in %

OPERATING PROFIT PER EMPLOYEE
in K€

[1] without PPA effects

Financial income

As a result of persistently low interest rates, the borrowing of financial liabilities in connection with the Nor-Cal acquisition in the middle of 2017 had only a marginal impact on the development of interest expenses. In contrast, financial income increased slightly in 2017. This resulted in a stable net financial income of € – 0.4 million.

Income taxes

In contrast to the higher earnings before taxes, tax expenses dropped from € 20.6 million to € 17.2 million in 2017. Accordingly, the relative burden in the form of the tax ratio declined. After 30.4 % in the previous year, this ratio was 24.2 % in 2017. A key factor in this development was the tax reform in the USA, which led to a corresponding reduction in deferred tax liabilities as a result of the reduced tax rates. In addition to these one-time accounting effects, we expect the fall in the tax rates to provide positive impulses in the future for the US economy as a whole and also for our activities there.

Net income

After already reaching a record high of € 47.0 million in the previous year for the highest net income in the Company's history, this figure increased significantly in 2017 again. The € 53.8 million achieved in this context represents an increase of € 6.8 million or 14.5 %. However, against the background of the PPA effects and the one-time expenses in connection with the takeover offers, which were recorded in net profit or loss, we remain satisfied with this development. Nevertheless, the net return on sales, i.e., the ratio of net income to sales, fell slightly from 9.9 % in the previous year to 9.2 %.

INCOME BEFORE TAXES
in € millions

NET INCOME
in € millions

Earnings per share

Parallel to the net income, the earnings per share also improved significantly. Following € 4.77 in the previous year, a figure of € 5.46 was achieved in 2017 – also a new record in the history of the Company.

EARNINGS PER SHARE
in €

Financial position

The acquisitions during the reporting year were also key drivers in the development of the financial position of the Pfeiffer Vacuum Group, with the result that the balance sheet total increased from € 459.3 million as of December 31, 2016 to € 553.4 million at the end of the 2017 fiscal year. The biggest absolute change was recorded in the area of intangible assets, which, among other things, showed the goodwill resulting from the company acquisitions, as well as customer relationships and the technology acquired. In addition, fixed assets increased significantly by € 21.9 million to € 106.9 million, also as a result of the company acquisitions. However, the increased capital expenditure of the Pfeiffer Vacuum Group has also had an impact. Due to the positive business development and the very good sales performance, particularly at the end of the year, but also as a result of additions to the consolidated companies, inventories increased by € 31.7 million and trade accounts receivable by € 10.7 million compared to the respective previous year's figure. Cash and cash equivalents declined from € 110.0 million at the end of the 2016 financial year to € 97.4 million on December 31, 2017, particularly, as a result of the acquisitions and the associated repayment of financial liabilities. A detailed development analysis of cash and cash equivalents can be found in the section "Liquidity and cash flow" below.

The acquisition of Nor-Cal had an impact on the liabilities side of the balance sheet, in particular, the increase of the long-term financial liabilities by € 60.2 million. In addition, virtually all balance sheet items were characterized both by the increase in business volume and by the acquisitions. This applies, in particular, to trade accounts payable, which increased by € 9.9 million to € 40.8 million. Equity increased by € 5.3 million from € 315.6 million to € 320.9 million. This change resulted primarily from the net income generated in the reported year (€ 53.8 million), the dividend payment to shareholders of Pfeiffer Vacuum Technology AG (€ 35.5 million) and the net decrease of € 13.0 million of other equity components. The effects recorded here from foreign exchange conversion were significant for the development of other equity components. Due to the marked increase in the balance sheet total with a moderate increase in equity, the equity ratio fell from 68.7 % to 58.0 %.

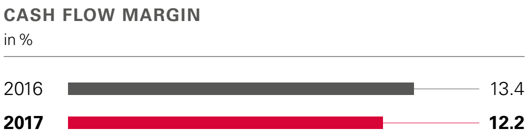
Nevertheless, Pfeiffer Vacuum continues to enjoy an exceptionally high equity base. The financial liabilities are below average compared to the balance sheet total and do not limit the Group's financial flexibility. Due to the organic growth and the acquisitions, the short-term working capital also rose by € 32.5 million. However, following the acquisition of Nor-Cal in the middle of 2017, the increase is slightly disproportionate compared to the development of sales.

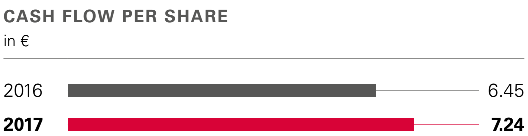
CHANGE IN NET WORKING CAPITAL

	Dec. 31, 2017	Dec. 31, 2016	Change
	in € millions	in € millions	in € millions
Inventories	113.4	81.7	31.7
Trade accounts receivable	80.1	69.4	10.7
Trade accounts payable	– 40.8	– 30.9	– 9.9
Net working capital	**152.7**	120.2	32.5

Liquidity and cash flow

After € 63.6 million in 2016, the operating cash flow increased to € 71.4 million in 2017. This corresponds to a significant increase of € 7.8 million or 12.2 %. In particular, higher earnings before taxes (+ € 3.4 million) had a positive effect on the operating cash flow. While both income taxes paid and depreciation/amortization on fixed assets and intangible assets were at about the same level as in the previous year, the development of provisions and payables led to significant improvements in terms of operating cash flow. This was offset by cash outflows from the increase in inventories, which had a negative impact on operating cash flow of € 15.2 million (previous year: € 6.0 million). The cash flow per share increased from € 6.45 in 2016 to € 7.24 in the past 2017 fiscal year. The further increased level of this ratio continues to represent the ability of the Pfeiffer Vacuum Group to generate disproportionately high cash inflows as part of its operating activities.





Decisive for capital expenditures for investment activities in the year 2017 were net expenditures for acquisitions. With regard to these, a total of € 74.6 million was paid out in the past fiscal year. Furthermore, scheduled replacement investments and partly also of expansion investments took place to an increased extent, as planned. Capital expenditures rose accordingly from € 18.0 million in the previous year to € 27.7 million in the reporting year. These were to be seen against proceeds from the sale of property, plant and equipment amounting to € 0.2 million (previous year: € 0.6 million), with the result that after € 17.4 million in 2016, the overall cash outflow totaled € 102.0 million. Further information on the composition of capital expenditure can be found in the section "Capital expenditures and financing" that follows.

The borrowing of financial liabilities in the amount of € 70.0 million connected with the acquisition of Nor-Cal was the most significant factor for cash flow due to financing activities. The dividend payment to the shareholders of Pfeiffer Vacuum Technology AG amounting to € 35.5 million (previous year: € 31.6 million) and the redemption of financial liabilities (€ 15.2 million, previous year: € 20.5 million) were the other factors for cash flow from financing activities. Therefore, in fiscal 2017, a total cash inflow of € 19.3 million was to be recorded, after a total cash outflow of € 52.1 million was recorded for the previous year.

The overall cash-outflow, with consideration of currency effects, amounted to a total of € 12.6 million (previous year: € 5.4 million) due to increased expenditures for acquisitions and investments as well as the increased dividend payment with an operating cash flow increase of € 7.8 million and cash inflow from borrowing of financial liabilities. This lead to a decrease in cash and cash equivalents by 11.5 % to € 97.4 million (previous year: 4.6 % to € 110.0 million). Even after borrowing of financial liabilities in the year 2017, the Company remains debt-free on a net basis. Furthermore, at the close of the fiscal year, Pfeiffer Vacuum had unused credit lines amounting to € 13.6 million (previous year: € 53.7 million).

The free liquidity is invested in interest-bearing financial instruments. A cash management system is in place in the German Group companies in Asslar in order to pool liquidity. In the year 2017, Pfeiffer Vacuum SAS in France was included in this cash management system. 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 expenditures and financing

Operating business, capital expenditures and dividend payments were financed as in previous years solely by internal funds of the Corporate Group. The acquisitions of ATC and Dreebit were also financed from existing Group liquidity. Financial liabilities of € 70.0 million were taken out to finance the Nor-Cal acquisition. In the course of the year, € 10.0 million thereof and assumed financial liabilities of € 5.2 million were already repaid. Capital expenditures of € 27.7 million related predominantly to necessary reinvestments for machinery, plant and equipment, but also partly to expansion investments in Romania and the USA. Increased capital expenditure was geared to the strategic orientation of the Group. Despite the performed acquisitions, the forecasted investment volume of € 28.0 million for 2017 was practically achieved. With regard to the strategy supporting a three year investment plan as decided by the Management and Supervisory Boards please refer to the related remarks in the Outlook.

The balance sheet total of the Pfeiffer Vacuum Group has long demonstrated a very solid equity base. Although the equity ratio fell from 68.7 % at the end of the previous year to 58.0 %, it still shows an above-average figure for the mechanical engineering industry. The current assets ratio, as the ratio of current assets to current liabilities, amounted to 261 % (previous year: 305 %) and continued to reflect the sound financing concept and high credit rating of Pfeiffer Vacuum. The increased capital expenditures of € 27.7 million and a virtually unchanged depreciation/amortization volume of € 20.8 million in 2017 resulted in a depreciation expense ratio (ratio of capital expenditure to depreciation/amortization) of 133 % compared to 88 % in the previous year. These depreciation/amortization amounts remain high as a result of purchase price allocation (PPA).

CURRENT ASSETS RATIO
in %

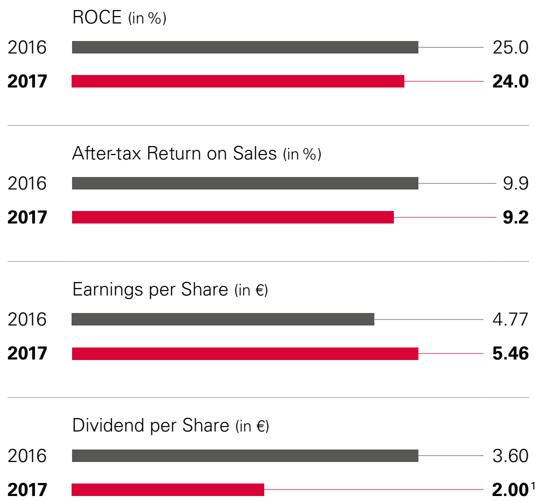
DEPRECIATION EXPENSE RATIO
in %

Value Reporting

The concept of value-based steering of the Company remains an integral element of the management approach that exists within the Pfeiffer Vacuum Corporate Group. All important decisions at Pfeiffer Vacuum are taken with due consideration of all material financial aspects. The following diagram provides an overview of various financial performance indicators which are important for us. In addition to ROCE (Return On Capital Employed; operating profit relative to the total of fixed assets and working capital) as a parameter for the yield on capital employed, the Company's return on sales, earnings per share, and the paid or proposed dividend are also presented here.

Based on the high level of the previous year, the aforementioned performance indicators for 2017 mainly showed a slight decline. This was partly due to one-time expenses in connection with, amongst others, the takeover offers and PPA effects. However, the operating results showed the expected improvements. Management and Supervisory Boards would like to let the shareholders participate in the Company' success. Accordingly, the dividend proposal provides for a dividend of € 2.00 per share. This corresponds to a payout ratio of 36.6 % (previous year: 75.5 %).

KEY VALUE REPORTING INDICATORS



[1] Subject to approval by the Annual General Meeting

Overall assessment of business performance

A look at the income statement of Pfeiffer Vacuum Group reveals a highly profitable company. The operating profit once again grew significantly and, at € 71.4 million, exceeded the previous record figure from 2012 (€ 68.5 million). Due, among other things, to one-time expenses and PPA effects, however, the operating profit margin showed a declining trend at the same time, but at 12.2 % was still above average for a mechanical engineering company. The record net income and earnings per share achieved in the previous year were once again exceeded in 2017. There has been no change in the rock solid financial position of Pfeiffer Vacuum. The Group is debt-free on a net basis and has a high equity ratio. The excellent liquidity situation puts us in a position to push ahead with the necessary steps for successful further development of the Group and again distribute a high dividend to shareholders. We look forward to continuing this development in 2018 and beyond.

Non-financial Performance Indicators

Employees

Pfeiffer Vacuum employed a total of 2,945 employees at the end of fiscal 2017. This represents an increase of 21.9 % compared to the previous year's figure of 2,415 employees. This development mainly originated in the USA and Asia and resulted primarily from the acquisitions made in 2017.

COMPOSITION OF WORKFORCE BY REGIONS

	2017		2016	
		in %		in %
Europe	1,793	61	1,721	71
Asia	764	26	561	23
The Americas	388	13	133	6
Total	**2,945**	**100**	2,415	100

Diversity

Pfeiffer Vacuum has a global standing and so unites a multitude of people of different origin under one umbrella brand. Our employees are proud of the successful cooperation between different cultures and nationalities. For several years now, Pfeiffer Vacuum has belonged to the "Diversity Charter", an initiative by the German Federal Government. The "Diversity Charter" represents a fundamental commitment to fairness and appreciation of people in companies.

Of the 2,945 employees, 505 are female and 2,440 are male. Therefore, the proportion of women constitutes 17.1 % of the entire workforce. Vacuum technology is a specific field of mechanical engineering in which there are generally only very few potential young females with adequate training. Nevertheless, it is the firm intention of company policy to increase the proportion of women in this traditionally male-dominated area of work. The French subsidiary of Pfeiffer Vacuum has concluded a formal agreement with all labor unions involved with the specific purpose of promoting women. The Supervisory Board of Pfeiffer Vacuum Technology AG has been under female chairmanship since October 26, 2017, following the judical appointment of Ms. Ayla Busch. With the appointment of Ms. Nathalie Benedikt as Chief Financial Officer on November 27, 2017, the Management Board of Pfeiffer Vacuum has a female quota of 25 %. In its subsidiary companies, however, several management and key positions in the areas of Purchasing, Finance, Communications, Marketing, Human Resources as well as Sales are occupied by female managers.

Training young talent

The promotion of young talent is of great importance at Pfeiffer Vacuum. At various locations, we offer company training courses as industrial mechanics, in the business administration area, as well as in warehouse logistics. In fiscal 2017, Pfeiffer Vacuum made a total of 113 apprenticeships available worldwide (previous year: 86).

In addition to the company apprenticeship, Pfeiffer Vacuum in Germany participates very successfully in the "Studium Plus" project, a dual degree program involving the cooperation of the Technical University of Mittelhessen and the Chamber of Industry and Commerce. Furthermore, a partnership exists with the Georg-August University Göttingen in relation to the company apprenticeships. In this way, we ensure our young talent in industrial and mechanical engineering as well as in the area of business informatics.

Also, many of our subsidiaries offer temporary internships for graduates and students and/or temporary positions for students who work during their vacation. This enables young people to gain an insight into operational processes and to qualify themselves as potential employees. In cooperation with different schools and universities, we perform guided tours of the Company and present ourselves to the public at career fairs. In France especially, several of our skilled workers give lectures on vacuum technology and corporate governance at universities. In addition, the name recognition that Pfeiffer Vacuum enjoys among natural science graduates due to the presence of its products in research laboratories is not to be underestimated.

Qualifications of skilled workers and executives

The success of Pfeiffer Vacuum is decisively based on the expertise, the loyalty, and the high motivation of our employees. Particularly the expert knowledge of our service and sales employees plays an important role in the cooperation with our customers. They benefit from the many years of experience to which our experts can resort in relation to physical and chemical reactions of the most diverse molecules and substances under vacuum conditions.

Most projects are developed by our customers together with our Sales and Market teams, which in turn also consult the relevant experts from the areas of Research & Development as well as Production and Service as necessary. The skilled knowledge of our employees is also of major importance in the manufacturing and installation of our products. The ultimate goal is to offer each customer a perfect vacuum solution for his application.

Good training and the readiness to adapt to changes in market forces by continuous development are thus the best prerequisites for all employees, regardless of age, in order to secure jobs and sustain professional success. Further training plays a critical role in our Company in all locations.

New employees complete an introductory course in the basic principles of Vacuum Technology, while sales and service employees receive advanced training courses about products and service measures.

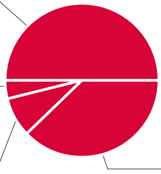
Practical programs exist for the qualification of executives, and foremen and group leaders are trained in leadership and management techniques. Furthermore, the Company pays attention to specialized advanced training to transfer technical innovations into the Company. Chinese, German, English or French language courses are offered depending on location and need.

PROFESSIONAL QUALIFICATIONS OF THE WORKFORCE

	2017
Development and Production, Total	**1,539**
Graduates of universities, colleges, and universities of applied sciences	346
Employees with professional training	950
Employees without professional training	160
Apprentices	83
Administration, Service and Sales, Total	**1,406**
Graduates of universities, colleges, and universities of applied sciences	765
Employees with professional training	523
Employees without professional training	88
Apprentices	30

The provision of further training options is generally linked to the local conditions and requirements. For example, the French subsidiary fulfills the relevant statutory requirements with more than twice the expenditure as would be required by law. Here, the focus is on training and further training measures in the area of "quality". The management also operates a software system for competence management of the employees to better identify and implement existing expertise and to be able to match training courses specifically.

PROPORTIONAL DISTRIBUTION OF PROFESSIONAL QUALIFICATIONS OF ALL EMPLOYEES
in %



Remuneration and incentive schemes

The personnel costs in fiscal 2017 amounted to € 191.0 million compared with € 157.6 million in fiscal 2016. The incentive scheme of Pfeiffer Vacuum also differs according to local conditions and customs. The sales personnel basically receive performance-related incentives via a bonus scheme oriented to sales growth and profit. Added to that – depending on the location – are other bonus, incentive or employee participation schemes as well as bonuses for outstanding individual achievements.

AGE STRUCTURE OF THE WORKFORCE

	2017		2016	
		in %		in %
Under 30 years of age	549	19	410	17
30 to 50 years of age	1,620	55	1,365	56
Over 50 years of age	776	26	640	27
Total	**2,945**	**100**	2,415	100

Pension scheme

The pension scheme is similarly varied in the individual locations. Apart from a purely public scheme in France funded by the French subsidiary, the worldwide pension scheme includes additional measures and payments into pension funds, the offer of a pension plan and direct insurance with the additional option of deferred compensation. For the employees in the head office in Asslar who had no employer-financed pension contribution up to 2008, voluntary payment into the company pension scheme has been agreed upon as part of the performance-related remuneration.

Social responsibility

We take our social responsibility towards our employees seriously. We therefore endeavor to ensure that the relevant quota of disabled employees in the various countries is met. We also believe that a family-friendly working environment is very important. Varying from region to region, this includes models for flexible working hours, provision of home office connections, models for re-entering the working world with flexible working hours and job sharing, specifically for young mothers and fathers.

The illness rates in Asslar and Göttingen amounted to 5.7 % and 7.0 %, respectively, compared to the regional industry average of 5.0 %. In Annecy, the illness rate was lower with 3.0 %.

The rate of staff fluctuation also differed depending on the geographical location, with a figure of 5.8 % in Asslar in the past fiscal year and 3.8 % in Göttingen. In Annecy, the rate of staff fluctuation was even lower at 1.1 %.

Workplace safety

Issues of workplace safety mainly relate to the production facilities of Pfeiffer Vacuum. In Asslar, there were 13 reported accidents in fiscal 2017 (previous year: 8). This is equivalent to 18.0 accidents per 1,000 employees (previous year: 10.9). With 5 reportable accidents in Göttingen, the ratio amounted to 31.8 accidents per 1,000 employees compared to 19.2 in the prior year. This figure is higher than the corresponding average of 18.4 for 2016 cited by the German Workers' Compensation Insurance Company (ETEM, numbers for 2017 were not yet available). The corresponding ratio for France was 16.5 with 11 reportable accidents (previous year: 51.5).

Non-financial Group report

The Pfeiffer Vacuum Group is subject to EU Directive 2014/95/EU and the CSR (Corporate Social Responsibility) Directive Implementation Act of April 11, 2017 on strengthening non-financial reporting. For the first time in the fiscal year 2017, Pfeiffer Vacuum thus publishes a non-financial group report according to §315b HGB, which will be available on group.pfeiffer-vacuum.com/non-financial-report from April 30, 2018 onwards.

Corporate Governance Report and Declaration on the Corporate Governance

The recommendations and suggestions contained in the German Corporate Governance Code ("DCGK") have been a firm element of our corporate governance for many years.

On October 26, 2017, and amended on January 24, 2018, the Management and Supervisory Boards of Pfeiffer Vacuum Technology AG submitted the Statement of Compliance for the year 2017 required pursuant to § 161 of the German Stock Corporation Act. It was made permanently accessible to shareholders on the Corporation's website (group.pfeiffer-vacuum.com).

Pfeiffer Vacuum Technology AG complies with all recommendations of the German Corporate Governance Code, as amended in February 2017, with the following two exceptions:

The German Corporate Governance Code recommends that a ceiling is established for the length of time that members may serve on the Supervisory Board (Paragraph 5.4.1). The Supervisory Board does not consider that a particular length of service as a member of the Supervisory Board constitutes a criterion which disqualifies a candidate from re-election to the Supervisory Board, and therefore does not take this criterion into account when selecting candidates.

The German Corporate Governance Code recommends that variable remuneration components for members of the Management Board should in principle have a multi-year assessment basis which is essentially future-oriented (Paragraph 4.2.3). However, the regulation on variable remuneration, which is applied for Manfred Bender, Dr. Ulrich von Hülsen und Dr. Matthias Wiemer, does not provide for an "essentially future-oriented" assessment basis. This deviation is based on the fact that the provision of the Code was newly created until February 2017 and the contracts were not able to be amended in the meantime. However, an adjustment by the Supervisory Board will be made in the near future.

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 Corporation 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 one and a half months 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.

Management Board

Since November 27, 2017, the Management Board has consisted of Dr. Eric Taberlet (Chief Executive Officer), Diploma in Engineering, Nathalie Benedikt (Chief Financial Officer), Diploma in Business Administration, Dr. Ulrich von Hülsen, Diploma in Physics, and Dr. Matthias Wiemer, Diploma in Engineering.

On that date, the Supervisory Board appointed Dr. Taberlet as Chairman of the Management Board. He has over 30 years of experience in the vacuum industry and holds a Ph.D. in fluid mechanics. Prior to his appointment to the Management Board, he was responsible for the Semiconductor & Coating business unit at Pfeiffer Vacuum. On the same date, Nathalie Benedikt was appointed as the Chief Financial Officer. She has in-depth expertise in the areas of strategy, controlling and finance, human resources as well as IT. In addition, she has served as Chief

Financial Officer at Pfeiffer Vacuum in 2013 and 2014. Parallel to the appointment of Dr. Taberlet and Ms. Benedikt, the former Chairman of the Management Board, Mr. Manfred Bender, was dismissed for good cause.

In order to meet the increased management demands of organic growth and the acquisition of three companies, the Supervisory Board has, effective August 1, 2017, appointed Dr. Ulrich von Hülsen as an additional member of the Management Board. Dr. von Hülsen, who holds a Ph.D. in physics, had already served as General Manager of Pfeiffer Vacuum GmbH for two years at that point and was responsible for the Analytics & Industry business unit in the Pfeiffer Vacuum Group.

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 are even responsible for operations.

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 weekly as of December 2017.

The Management Board works exclusively for Pfeiffer Vacuum. Moreover, the Board members are also members of supervisory organs of various subsidiaries. Manfred Bender, who was dismissed in the reporting year, is a member of the supervisory board of Volksbank Heuchelheim eG, Heuchelheim, Germany, and chairman of the Supervisory Board of Schunk GmbH, Heuchelheim.

The responsibilities of the current members of the Management Board are as follows:

PFEIFFER VACUUM TECHNOLOGY AG MANAGEMENT BOARD

Dr. Eric Taberlet CEO	**Nathalie Benedikt** CFO	**Dr. Ulrich von Hülsen**	**Dr. Matthias Wiemer**
Business Unit Semiconductor & Coating	**Central Functions**	**Business Unit Analytics & Industry**	**Global Operations & Components**
Sales & Marketing	Controlling & Finance	Sales & Marketing	Global Sourcing
Production/Quality	Corporate Communications	Production/Quality	Global Production Footprint
Training/Service	IT	Training/Service	Components Business
Supply Chain	Human Resources	Supply Chain	
Research & Development	Investor Relations	Research & Development	

Supervisory Board

Pursuant to the statutory requirements and the Articles of Association of Pfeiffer Vacuum Technology AG, the Supervisory Board consists, in principle, of a total of six persons. Four persons represent the shareholders and two persons represent the employees of the Company.

Upon resignation of former Supervisory Board members Dr. Oltmanns and Dr. Lust on October 25, 2017, a judicial appointment of two Supervisory Board members was to take place upon request of major shareholder Pangea GmbH, Maulburg, effective October 26, 2017, until the next Annual General Meeting. The court, however, only granted the request to the extent that Ayla Busch, who also strived for the position of Supervisory Board Chair, was appointed as a member of the Supervisory Board. The constituent meeting of the Supervisory Board thus took place with five Board members on October 26, 2017 and Ayla Busch was voted Chairwoman of the Supervisory Board. The vacant Board position is to be newly filled not later than at the Annual General Meeting in May 2018.

Membership over the course of the year 2017 was as follows:

- Ayla Busch (Chairwoman), from October 26, 2017 Co-CEO Busch SE, Maulburg, Germany
- Dr. Michael Oltmanns (Chairman), until October 25, 2017 Attorney at Law and Tax Advisor
- Götz Timmerbeil (Vice Chairman), Auditor and Tax Consultant
- Filippo Th. Beck, Attorney at Law of Swiss Law,
- Helmut Bernhardt (Employee Representative), Development Engineer
- Manfred Gath (Employee Representative), Chair of the Employee Council
- Dr. Wolfgang Lust, Entrepreneur, until October 25, 2017

The Supervisory Board members elected by the shareholders Götz Timmerbeil and Filippo Th. Beck were voted during the Annual General Meeting to a term of office of five years in May 2016. The court appointment of Ayla Busch expires at the end of the next ordinary Annual General Meeting.

For the election as Supervisory Board Member, the Nominating Committee submits a nomination suggestion to the Supervisory Board. When selecting the candidates, care is taken to ensure that members of the Supervisory Board at all times possess the requisite expertise, skills, and professional experience and are sufficiently independent. The international activities of the Group and potential conflicts of interest are also taken into account.

The Supervisory Board has determined the following specific objectives of its composition: occupational diversity (at least in the areas of business, technology, and law), internationality gained during overseas professional experience, avoidance of potential conflicts of interest by excluding close relationships with competitors, and an age limit at the beginning of the term which is the same as the statutory retirement age. These objectives have been taken into consideration in the past, and this is also intended for future nominations.

No compensations 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, with the exception of the antitrust commissioning of the law firm Menold Bezler Rechtsanwälte Partnerschaft, Stuttgart, in connection with the takeover bids by Pangea GmbH, Maulburg, of which the former chairman of the Supervisory Board Dr. Michael Oltmanns is a partner, in fiscal 2017. Finally, the Rules of Procedure for the Management Board provide that the Supervisory Board must grant its approval for significant business transactions.

According to the recommendations of the German Corporate Governance Code, no more than two previous Management Board members hold seats on the Pfeiffer Vacuum Supervisory Board. Furthermore, the Supervisory Board reviews the independence of its members. It has established standards for assessing this independence, which are based on the Code, in particular. According to these principles, the majority of current Supervisory Board members is considered independent, thus assuring independent advice and monitoring of the Management Board.

The establishment of an Audit Committee is a longstanding practice at Pfeiffer Vacuum. As a certified public accountant, the Chairman of the Audit Committee, Götz Timmerbeil, is particularly qualified to bear responsibility for the activities of the Audit Committee, in particular in connection with questions relating to financial accounting, compliance, and the risk management system.

The task of the Nominating 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 compensation is thus subject to the provisions of the German Act on the Appropriateness of Management Board Compensation. In order to increase the transparency of the entire Supervisory Board panel, the Administration Committee was dissolved, effective October 26, 2017.

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

COMPOSITION OF THE SUPERVISORY BOARD COMITTEES

	Nomination Committee	Audit Committee	Management Committee
Ayla Busch (from October 26, 2017)	Chairwoman	Yes	Chairwoman
Dr. Michael Oltmanns (until October 25, 2017)	Chairman	Yes	Chairman
Götz Timmerbeil	Yes	Chairman	Yes
Filippo Th. Beck	Yes (from Oct. 26, 2017)	Yes	Yes (from Oct. 26, 2017)
Helmut Bernhardt	—	—	—
Manfred Gath	—	—	—
Dr. Wolfgang Lust (until October 25, 2017)	Yes	-	Yes

The members of the Administration Committee until its dissolution were Dr. Michael Oltmanns (Administration Committee Chairman), Götz Timmerbeil and Helmut Bernhardt.

The following members exercised further mandates. These are supervisory board mandates unless otherwise indicated:

- Götz Timmerbeil:
  VfL Handball Gummersbach GmbH, Gummersbach (Chairman of the advisory board) and Arena Gummersbach GmbH & Co. KG, Gummersbach (Vice Chairman)
- Filippo Th. Beck:
  Candoria Group, Baar (Switzerland), member of supervisory organ of Candoria Holding AG, president of the supervisory organ of Progresa Holding AG and of Candoria Luxemburg Holding SA, Luxembourg; Tenro Group, Bottmingen (Switzerland), member of supervisory organ of various group entities; Biamathea AG, Basel (Switzerland), member of supervisory organ; Polyterra Liegenschaften AG in liquidation, Küsnacht (Switzerland), member of supervisory organ and liquidator; IKFE Properties I AG, Zürich (Switzerland), president of supervisory organ; Tainn-Immobilien AG, Bern (Switzerland), member of supervisory organ
- Dr. Michael Oltmanns, until October 25, 2017:
  Becker Mining Systems AG, Friedrichsthal (chairman), HPC AG, Mannheim (chairman); and Kathrein SE, Rosenheim (chairman of the supervisory body)

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

Collaboration between the Management and Supervisory Boards

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. Supervisory Board meetings are held at least twice a year in this context, for 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. 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, through a monthly reporting system.

Compensation report

In the following section, the compensation for members of the Management and Supervisory Boards is detailed.

Compensation for the Management Board

The fixed remuneration paid and expensed in fiscal 2017 amounted to K€ 290 for Dr. Matthias Wiemer and for Dr. Ulrich von Hülsen – for the period after his appointment to the Management Board – a total of K€ 92. For the last appointed members of the Management Board, Dr. Eric Taberlet and Nathalie Benedikt, a provision amounting to K€ 27 and K€ 20, respectively, was created for the contractual fixed remuneration. The variable component recorded in the Income Statement in fiscal 2017 amounted to K€ 29 for Dr. Eric Taberlet, K€ 13 for Nathalie Benedikt, K€ 125 for Dr. Ulrich von Hülsen, and K€ 300 for Dr. Matthias Wiemer. In-kind income was incurred amounting to K€ 3 Dr. Ulrich von Hülsen), and K€ 23 (Dr. Matthias Wiemer), respectively. A fixed sum of K€ 447 was expensed and paid to Manfred Bender until his departure; income in-kind amounted to K€ 17. Total compensation received by Dr. Eric Taberlet in 2017 amounted to a total of K€ 56 (previous year: –), Nathalie Benedikt received K€ 33 (previous year: –), Dr. Ulrich von Hülsen received K€ 220 (previous year: –), Dr. Matthias Wiemer received K€ 613 (previous year: K€ 694), and Manfred Bender received K€ 464 (previous year: K€ 977).

The total compensation for the aforementioned active members of the Management Board amounted to K€ 1,386 after K€ 1,671 in fiscal 2016. Short-term variable remunerations paid in 2017 for fiscal year 2016 totaled K€ 506 for Manfred Bender and K€ 337 for Dr. Matthias Wiemer. These amounts were paid out in 2017 charging a provision recorded in 2016. For the remaining Management Board members, no variable compensation components were paid out in 2017.

The variable component for Dr. Ulrich von Hülsen, Dr. Matthias Wiemer and Manfred Bender, whose appointment has meanwhile been withdrawn, is a bonus which the Supervisory Board determines. The discretion of the Supervisory Board can prevent extraordinary developments from leading to undue fluctuations in the variable compensation. The development of the bonus is based on the development of the Group's success and the profits before taxes. However, the bonus is subject to a condition of sustainability. This means that if the success of the Group during the assessment year increases in comparison to the average of the two previous years, the success during the assessment year will be proven to be sustainable only in the amount of the average of both previous years' successes; the bonus in this respect has therefore been earned and is payable. However, the sustainability of the portion in excess of this has not yet been proven. Therefore, only a small part of the bonus, to the extent that the bonus is based upon the surplus element, will be due when the annual financial statements of the assessment year are approved (so-called short-term incentive). The larger part (so-called long-term incentive) will not be due until two years later and only in its fullest amount if the average profits of these two following years are at least as high as the average profits of the previous two years. Should they be less than the average, the long-term incentive will be correspondingly reduced. The purpose of this sustainability proviso is to avoid rewarding so-called "straw fires" at the expense of sustainable profitability. For Dr. Taberlet, the variable component consists of a year-related bonus, which depends on the achievement of targets set in advance by the Supervisory Board, and – to a large extent – a long-term variable remuneration component, half of which is dependent on the development of the Company's EBITDA and the other half on the achievement of a further target set in advance by the Supervisory Board (so-called key performance indicator (KPI)) or alternatively several other KPIs determined in advance by the Supervisory Board during a three-year assessment period. The amount of the year-related bonus and the long-term variable remuneration is based on the degree to which targets have been achieved. In both cases, the calculation is based on an annual target amount allocated for the long-term remuneration for the following three-year period. Long-term variable remuneration can be paid for the first time after the end of the 2020 financial year. In the contract of employment with Nathalie Benedikt the same compensation model shall apply. For the fiscal 2017, the prorated entitlement to the variable remuneration component for Dr. Taberlet was fulfilled by contractually defined one-off payments. The same shall apply for Nathalie Benedikt in this context.

Dr. Matthias Wiemer has received pension commitments in the unchanged amount of 40 % of the last fixed salary elements. In this connection, total net pension expenses in accordance with IFRS of K€ 232 were recorded in the Consolidated Statements of Income in fiscal 2017 (previous year: K€ 215).

Manfred Bender, dismissed in 2017, has received pension commitments in the unchanged amount of 60 % of the last fixed salary elements. In this regard, total net pension expenses in accordance with IFRS of K€ 281 were recorded in the Consolidated Statements of Income in fiscal 2017 (previous year: K€ 261).

In addition, there are pension commitments for further former board members. The net pension expenses attributable to these individuals for the year amount to K€ 46 (previous year: K€ 47).

After K€ 188 in 2016, a total of K€ 240 was paid to the Pfeiffer Vacuum Trust e.V. in the current year 2017. The total net pension obligations for current and former members of the Management Board therefore amounted to K€ 5,777 (previous year: K€ 5,779). Current pensions in fiscal 2017 amounted to K€ 358, remaining unchanged.

In fiscal 2017, the contract of employment with Management Board member Dr. Matthias Wiemer was renewed. The subsequent contract, with effect from January 1, 2018, includes the limitation of a potential compensation payment in accordance with the Corporate Governance Codex, also in case of a change of control. This is also valid for the new contracts of employment with Dr. Ulrich von Hülsen and Dr. Eric Taberlet and shall be valid for the contract with Nathalie Benedikt.

Compensation for the Supervisory Board

The members of the Supervisory Board received a fixed compensation determined by the Annual General Meeting. On May 24, 2016, the Annual General Meeting approved an increase in the Supervisory Board's compensation from fiscal year 2016 onwards. If members of the Supervisory Board leave or are newly elected during the fiscal year, their remuneration will be paid on a pro rata temporis basis.

In fiscal 2017, Dr. Michael Oltmanns therefore received compensation of K€ 86 (previous year: K€ 105), while Götz Timmerbeil received an unchanged amount of K€ 70. Ayla Busch received, for the first time, compensation of K€ 19. Helmut Bernhardt and Manfred Gath each received, as in the previous year, K€ 35. Filippo Th. Beck received compensation of K€ 35 (previous year: K€ 21), while Dr. Wolfgang Lust received K€ 29 (previous year: 35 T €). In the previous year, Wilfried Glaum received K€ 14. The total compensation paid out to the Supervisory Board in fiscal 2017 therefore amounted to K€ 309 (previous year: K€ 315).

Negative statement

No further benefits were paid to Management or Supervisory Board members over and above the listed compensation components. In particular, no stock options were granted, no loan entitlements were established, and no liability commitments were pronounced. In addition, no special agreements were made further on in connection with the termination of the activities for the Management or Supervisory Boards.

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 shall be made available on the Company's website. The purchase and sale of Pfeiffer Vacuum shares by members of the Management and Supervisory Boards 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.pfeiffer-vacuum.com.

Equality

According to § 111, Sub-para. 5, German Stock Corporation Act ("AktG"), the Supervisory Board has established a women's quota of 0–30 % for both the Supervisory and the Management Board and also a time limit until June 30, 2017, for the achievement of this quota. This target was achieved at the expiry of the time limit. With the appointment of Ayla Busch as a member of the Supervisory Board, the percentage of women in the Board now lies at 20 %. The percentage of women in the Management Board of Pfeiffer Vacuum Technology AG lies at 25 % after the appointment of Nathalie Benedikt as Management Board member. In January 2018, the Supervisory Board has established a women´s quota of 16.67 % for the Supervisory Board and 25 % for the Management Board as well as a time limit until December 31, 2020, for the achievement of this quota.

The provision contained in § 76, Sub-Para. 4, German Stock Corporation Act ("AktG"), refers only to the management level at Pfeiffer Vacuum Technology AG. Due to its function as a finance holding, this company has only very few employees and there are no further management levels below the Management Board, thus making it impossible to establish a target figure.

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 is also available externally in German and English via the Company website. In it, options for employees to report possible violations of the law in the Corporate Group are described. These 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. Determined breaches of compliance will be sanctioned accordingly. With external support enhancement and adaptation of the Compliance Management System is currently taking place.

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"). This Consolidated Financial Statement was audited pursuant to the resolution of the Annual General Meeting on May 23, 2017 by Ernst & Young GmbH, Wirtschaftsprüfungsgesellschaft, Eschborn, Germany. Ernst & Young GmbH also audits the Annual Financial Statements of Pfeiffer Vacuum Technology AG as well as 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 all findings and events of importance to the Supervisory Board that arise during the audit. In addition, the auditor must inform the Supervisory Board and note in the audit if the auditor determines facts during the course of the audit that are not compatible with the Statement of Compliance submitted by the Management and Supervisory Boards pursuant to § 161 of the German Stock Corporation Act ("AktG").

Risk and Opportunities Report

The purpose of entrepreneurialism is to specifically utilize opportunities that have been identified in order to increase the value of the Company. However, this intrinsically involves taking risks. The opportunity and risk management system that we employ serves to optimize the relationship between risks and opportunities with a view to sustainable business success. To assure this, we use and evolve suitable instruments, such as an appropriate handbook and/or a risk inventory, to identify, analyze, assess, and control opportunities and risks. In the following, opportunities and risks are presented on a gross basis.

Risk management system

The Pfeiffer Vacuum risk management system includes all levels of the Corporate Group. The system is described in a risk handbook that is available to all employees and updated on an as-needed basis. Our flat hierarchy and fast communication channels aid in swiftly identifying risks at every level of the Company and using suitable measures to combat them. The risk coordinator monitors the proper implementation of risk management and the full risk inventory. The risk inventory is performed by the department heads at the large production sites and by the managing directors at the remaining subsidiaries. Consolidating all inventories at an aggregate level produces a differentiated overall picture of the Corporate Group's risk position.

During the year, risk inventories are updated if necessary; what we define, in addition to a concrete description of the risks, is the potential quantitative impact on operating profit, the likelihood of occurrence and suitable countermeasures. At year end, a complete risk inventory is made, which is reviewed by both the risk coordinator as well as the Management Board. In addition, we have defined the areas of risk management within the individual market segments and have put in place the necessary processes as well as early-warning and monitoring systems. The monthly Corporate Group reporting system supports the risk management process with a variety of parameters and reports that serve as an essential basis for the Management and Supervisory Boards upon which to regularly deliberate on current business. The monthly meetings of senior executives and monthly conference calls are also firmly established institutions that enable the department heads and our subsidiaries to share with the Management Board information relating to potential risks and how to handle them.

In addition to monthly reporting, our internal controlling system (ICS) helps us to identify risks in daily processes and thus avoid potential errors. The processes reviewed in this connection are first and foremost ones that have a major impact on Pfeiffer Vacuum's financial position. Regularly conducted inspections protect against human error, system errors, and breaches of internal regulations.

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 individual control and risk management systems relating to consolidated accounting, are stipulated throughout the entire Corporate 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 to the consolidated accounting process, we consider those characteristics of the internal control and risk management system to be major in nature 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 Corporate 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 Management's Discussion and Analysis for the Corporate Group (including separation of functions),
- Measures that assure proper IT-based processing of facts and data that relate to consolidated accounting.

Opportunity management system

The Pfeiffer Vacuum opportunity management system is closely linked to the risk management system, as many risks also offer opportunities that should be utilized where appropriate. This is why the risks identified in the risk inventory are simultaneously examined with a view to potential opportunities, which produces a correlation. In extensive decision-making processes, we analyze the question of whether the potential opportunities or risks predominate, which means that we only engage in risks that appear to be manageable and are compensated for by the opportunities they offer.

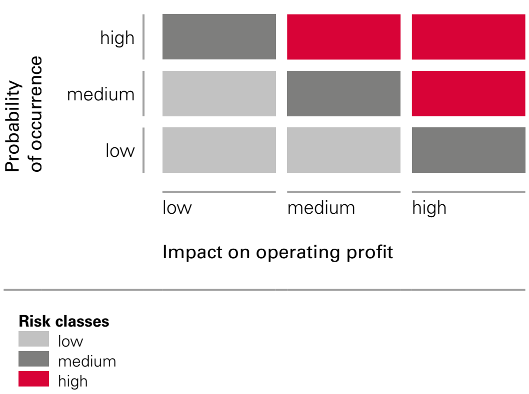
We conduct market and competition analyses in order to be able to explicitly make optimum use of industry and overall economic opportunities. This provides us with a good overview to further broaden our market share by specifically utilizing our potential. Close contact with our customers additionally aids us in identifying trends early on, thus enabling us to actively shape changes in the marketplace.

With variance analyses and development forecasts, our highly refined reporting system also identifies opportunities in our regional structure. Our global sales and marketing network enables us to swiftly and purposefully take advantage of these opportunities.

Risk classification

The risk classification of the risks presented below was effected according to a matrix taking into consideration the probability of occurrence and the potential impact on the operating profit.

RISK CLASSIFICATION



Risks

Overall economy (risk class: low)

As a globally operating Group, we are dependent upon global economic developments. Nor can Pfeiffer Vacuum avoid the effects of a decline in world economic growth, and would have to expect to see a direct impact on our sales and profitability. However, the regional and market-segment mix of sales is very balanced at Pfeiffer Vacuum, and its overall structure compensates for revenues in economically weak and economically growing markets and industries. Because it is seldom that all regions and market segments are equally affected by a deteriorating economic development. Despite the overall compensating developments, there may be an impact on the economic sucess of individual segments. The semiconductor market represents a significant share of sales and Pfeiffer Vacuum is therefore exposed to a greater extent to the fluctuations of this market. Managing the economic risk essentially involves steering capacities and costs. Flexible working time models enable us to swiftly and easily adapt production capacities to reflect the development of the order situation.

Market segments (risk class: medium)

Sales in Pfeiffer Vacuum's individual market segments are closely linked to global economic developments. The research & development market, for example, is dependent upon government spending and focuses in connection with research projects. The semiconductor market follows its own cycles, which offers enormous opportunities during boom phases and involves major risks during phases of weakness. The coating market is closely linked to developments in the photovoltaic industry and did not recover again entirely after the crisis in 2011. The heterogeneous industrial market segment follows overall economic trends in its general development. The development work in the product categories goes hand in hand with the trends in the individual market segments. This means that smaller turbopumps and analysis instruments are more likely to be required in the analytical industry, which tends to respond on an early-cyclical basis. Large quantities of backing pumps are employed in the semiconductor market, but also in other industries whose developments generally conform to those in mechanical engineering.

In order to combat the risks stemming from dependence upon individual market segments and products, Pfeiffer Vacuum places a great deal of value on its broad based alignment. At the same time, a disproportionately high share of revenue derives from the semiconductor industry, which presents both an opportunity as well as a risk due to the cyclical nature of this industry's development. Pfeiffer Vacuum's strategy for lowering this risk is to increasingly market products in other industries through our distribution channels, thus lowering the share of total revenues accounted for by the semiconductor industry. Current studies on the semiconductor industry show that this market will grow strongly beyond the cycles.

Acquisition and integration (risk class: low)

The integration of companies into the purchaser's corporate group always poses a special challenge. In order to preclude as far as possible the risk that the expectations which are placed upon the acquisition might not fully materialize, we conduct detailed due diligence reviews in advance of a corporate acquisition. Analyzed in particular in this connection are the legal situation, technical equipment, production planning, and the current and expected financial position of the Company to be acquired. To minimize legal and financial risks in particular, we draw upon the counsel of reputable law firms and tax advisors with substantial experience of acquisitions on this scale during the period of preparing and realizing the acquisition. Taken as a whole, these measures ensure that all aspects of a corporate acquisition are taken into consideration, and enable conclusions to be drawn regarding the potential synergies that will result from an acquisition. This significantly reduces the risk of unanticipated developments. However, this risk can never be entirely excluded because a successful acquisition depends upon many other additional factors. This also applies for the integration which follows after acquisition.

To restrict integration-related risks, proven Pfeiffer Vacuum guidelines, which ensure structured and successful business operations, are implemented within newly acquired companies. Directly after acquisition, newly acquired companies are also integrated into the reporting system in the Pfeiffer Vacuum Group to allow targeted management of the individual companies. Besides extensive reporting, this also includes monthly conference calls and regular meetings on site in the countries concerned.

The standardized risk management system is also put in place in all new Group companies. The risk of intransparency is therefore eliminated in this way. This approach was taken for all acquisitions made in 2017.

Technology (risk class: medium)

Products and services that do not meet customer expectations lead directly to declining sales, and thus to a loss of market share and reputation. Therefore, the key risk factors for Pfeiffer Vacuum include a lack of innovative strength and the loss of quality of products and services. We combat these risks through ongoing customer contact and the resulting market intimacy. The information thus obtained about the needs of our customers enables us to develop and offer products that are suited to their demands. This allows us to expand both our competitive position as well as our name recognition. We will continue to combat the risk of a lack of innovation through our development investments. In addition, maintaining high standards of quality is a top priority for us. We received certification to ISO 9001:2008 for the first time in 1995, and this has since been sustained without interruption.

Purchasing and manufacturing (risk class: low)

The risks in the sourcing market occur, in particular, in the form of supply bottlenecks and dependency upon individual vendors. Downtimes are viewed as a key risk from a production standpoint. We primarily combat the risk of supply bottlenecks and vendor dependence by continuously reviewing alternative supplier options. Anticipated market shortages of raw materials, such as steel and aluminum, and the price risks which these entail, are combated through long-term framework contracts. In general, however, it can be said that the effects of changes in the price of raw materials do not have any significant influence on profitability. Business interruption insurance is in force to cover the effects of downtimes resulting from fire, storm or flood damage, for example. Qualified technicians and modern production machinery keep technically related downtimes to a low level. Regular servicing and preventive maintenance for our machinery and equipment also help to avoid downtimes.

Human resources (risk class: low)

As a provider of vacuum solutions, i. e. a subset of mechanical engineering, we are dependent upon the high level of education, training and commitment of our employees. We use various measures to combat the risk of losing these people and/or insufficient recruiting possibilities for suitable new talent. An attrition rate that continues to be low documents the acceptance of this on the part of our people.

Information technology (risk class: low)

Because our business processes are mapped by means of software support, Pfeiffer Vacuum's corporate data is subject to a general information technology risk. This includes, first and foremost, the risks of system outages, data losses, virus or hacker attacks that could lead to an interruption of business operations.

We keep the risk of data losses to a minimum by performing daily backups of our complete enterprise data. Our enterprise database, in particular, with which manufacturing operations, materials management, order handling, financial and cost accounting are handled, is subject to a high security standard. All files created by our employees within the server environment are also backed up on a daily basis. Our backup tapes are stored in secure, fire-proof 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 modern firewalls to protect its hardware and software against the risk of computer viruses and hacking.

Exchange rates (risk class: low)

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. A distinction must be made with respect to the way foreign exchange risks are controlled; the Company conducts active currency management for all intra-group sales invoiced in U.S. dollars or Korean won. In order to minimize the impact of exchange rates on future sales of this kind, we enter into forward exchange contracts and options for the aforementioned currencies. Moreover, there is a valuation risk in some companies at the close of the fiscal year that stems from intercompany accounts receivable denominated in foreign currencies. Both gains and losses from realized options and futures contracts, as well as the valuation results stemming from accounts receivable denominated in foreign currencies, can be controlled to a certain extent. These are reflected in the Consolidated Statements of Income.

In addition to this, the Consolidated Statements of Income also include the income and expenses of non-German subsidiaries that do not report in euros and must therefore first be converted into euros. The line items in the Statements of Income are converted into euros at the annual average exchange rate and then adjusted for intercompany sales and services. Preliminarily leaving selling and general administrative costs out of consideration, the Company's sales are listed in the foreign currency with corresponding manufacturing costs listed predominantly in euros. Sales invoiced in U.S. dollars, for example, are subject to a foreign exchange risk (currency risk) while manufacturing costs are mainly incurred in euros and are not influenced by exchange rate fluctuations. The magnitude of sales and gross profit are therefore influenced directly by the exchange rate and are externally stipulated and non-hedgeable. 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. Ultimately, this situation has not changed, even with the acquisitions made in the USA in 2017. Although manufacturing costs are now incurred in U.S. dollars to a greater extent, the sales activities of these subsidiaries almost exclusively take place within the U.S. As a result, currency impacts on sales and manufacturing costs largely offset each other by means of a natural hedge and thus do not present an increased currency risk overall.

Liquidity position (risk class: low)

The risk of a customer's insolvency always exists, independently of the economic situation (default risk). There are general liquidity risks of being unable to satisfy required payment obligations in a timely manner. The rigorous system of accounts receivable management that has long been practiced at Pfeiffer Vacuum, along with monitoring of our customers' payment patterns, minimizes creditworthiness risks and thus accounts receivable losses. Moreover, our dependence upon individual customers is limited.

After long-term financial liabilities were repaid in full in 2016, the Company again took on financial liabilities with the acquisition of Nor-Cal Products Holdings, Inc., Yreka, USA. Unchanged from previous years, with a drawdown of € 60.3 million (equivalent to a share of 10.9 % of the balance sheet total) and liquid assets of € 97.4 million, there exists no debt on a net basis, however. This means that there continue to be sufficient reserves to assure the survival of the Company, even in difficult economic times. Our operative business generates sufficient liquid assets to enable the Company to continue to grow from within.

Legal risks (risk class: low)

As a result of Pfeiffer Vacuum's international business operations, the Company is subject to a variety of legal risks. National and international contract law and taxation are of particular significance in this connection. These areas can have a direct bearing on the Company's earnings and financial position. Standardized terms and conditions of contract and business are always employed to minimize the risk stemming from contracts entered into for products and services. 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 for assessing the Company's daily business is provided by our qualified staff. We draw upon the assistance of external tax advisors in connection with complex issues that relate to national and international taxation. Product liability risks are covered by appropriate insurance. No legal disputes are currently pending whose outcome could have a material impact on the Company's earnings or financial position.

Takeover risks (risk class: low)

After completion of two voluntary public takeover offers to the shareholders of Pfeiffer Vacuum Technology AG for the acquisition of all shares of Pfeiffer Vacuum Technology AG and as a result of shares acquired on the stock exchange following the second takeover offer, Pangea GmbH, Maulburg, Germany owns 38.96 % of the shares of Pfeiffer Vacuum Technology AG as of December 31, 2017 according to own statements. Pangea GmbH is a legally independent entity of the family-run Busch Group. Stated in the documents of the offer, among other things, is that the conclusion of a profit and loss transfer or domination agreement between the Busch Group and Pfeiffer Vacuum is to be considered after the successful consummation of the offer. The conclusion of such a contract would result in the loss of Pfeiffer Vacuum's independence. After completion of the takeover offer, there have been no new findings. Possible consequences resulting from the shareholdings can therefore still not be conclusively assessed.

Opportunities

Macroeconomic and sector-specific opportunities

The global economic development in the past fiscal year was marked by moderate growth. The Chinese economy recorded growth rates at a higher than average level. Positive growth trends are anticipated in the United States, which will also improve our position here. Being well placed here gives us the opportunity to lock into this trend as well. A similar situation applies for Germany too, where an economic stabilization is currently anticipated for 2018. The cyclical nature of the semiconductor industry, which has been referred to a number of times, is both an opportunity and a risk.

Technology

Through its many years of experience, Pfeiffer Vacuum is highly successful in developing viable, high-quality products and bringing them to market. The foundation for this consists of our close collaboration with our customers in a spirit of trust, which enables us to anticipate their needs and thus gain a head start over our competitors. With innovative products and by steadily broadening our product portfolio, there are opportunities for better satisfying the demands of existing markets and generating opportunities for additional sales volumes by gaining market shares. This enables us to offer our customers a broader spectrum of products. The most recent acquisitions in 2017 have also expanded the product portfolio in the areas of component business, service, and leak detection systems.

Sales

One of the Company's key competitive advantages has always been its lack of dependence upon individual regions, products or markets. We therefore view the expansion of our sales and marketing network as representing an opportunity to increase our market share. The globally active sales teams are interlinked, and uniform Pfeiffer Vacuum sales rules have been put in place. Regular training is also given on the permanently expanding spectrum of products, to enable sales staff to make use of opportunities for increasing sales to existing and prospective customers.

Production and logistics

Through the optimization of our production and logistics processes, we have laid the foundation in recent fiscal years for further improving our profitability. We therefore see this as an opportunity for being even faster in offering high-quality solutions to our customers in future as well. We have rigorously aligned the flows of materials in manufacturing towards our modern logistics processes. Reorganizing and fundamentally modernizing manufacturing operations led to additional productivity gains. As a solutions provider, we focus squarely on the needs of our customers. And through the reorganization of our manufacturing process, we are now being guided even more by the needs of our customers rather than by rigid planning dictates. Moreover, a cutting-edge warehouse system and a standardized system of product shipping increase efficiency. We are confident that the interplay between these modernization measures will help us to reduce throughput times in the future. Pfeiffer Vacuum has a total of three major production sites in Asslar, Göttingen, and Annecy. Furthermore, as part of the Nor-Cal acquisition, a larger production site in Yreka, California, U.S. has been added. Further production sites are located in Cluj, Romania, Ho Chi Minh City, Vietnam, in Indianapolis, Indiana, U.S. and in Asan, South Korea.

Human resources

The development of viable new products, the ongoing improvement of our existing product portfolio, the high level of precision of the production processes, the sale and distribution of our products in a technologically challenging competitive environment, and the administration of an internationally operating, publicly traded Corporate Group necessitate a highly qualified and motivated workforce. We therefore utilize the opportunity of assuring the long-term loyalty of the Company's existing talent while simultaneously being an attractive employer for new people. Attractive pay concepts have been in place for years at Pfeiffer Vacuum. We therefore view ourselves as being well equipped to cover our future needs for qualified skilled labor and university graduates in the future and to assure the loyalty of our talent to the Company – both are absolute prerequisites for the Company's successful further development.

General comments on the risk management system and the presentation of the risk and opportunities situation

We are of the opinion that the risk management system is suitable for identifying, analyzing, and quantifying existing risks in order to adequately steer them. Our auditor has reviewed the risk management system that is in place in connection with the audit of the Consolidated Financial Statements. This review did not result in any objections. Despite the number of risks disclosed being higher than the number of identified opportunities, Pfeiffer Vacuum considers the allocation of risks and opportunities as balanced overall. This particularly applies as the Group's economic success is based on a broad number of products for various industries. As those industries vary in terms of structure and economic cycles, this diversification contributes to a risk reduction. No risks are identifiable that could endanger the Company's survival, neither for the year covered by this Report nor for the following years.

Rating

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

Subsequent Events

With regard to the strategy supporting a three year investment plan as decided by the Management and Supervisory Boards please refer to the related remarks in the Outlook.

There were no significant changes in the sector environment since the beginning of the 2018 fiscal year.

Outlook

General economic development

Based on 3.7 % in 2017, the International Monetary Fund (IMF) expects moderately higher global economic growth of 3.9 % for 2018. For the emerging and developing countries as a whole, slightly higher growth is predicted, despite the forecasted growth slowdown in China. On a global scale, hopes are pinned on India and for 2018 also on Brazil and Mexico. With growth of 1.7 %, Russia is forecasted to grow at about the same level as the previous year. For industrialized countries, a growth of 2.3 % is expected, which is in line with the growth rate of 2017. At the same time, an improved growth dynamic is assumed for the U.S., which will be compensated by a somewhat more restrained development in Europe. The IMF sees a growth rate of 2.7 %, in particular, for the U.S. (previous year: 2.3 %) and for Europe 2.2 % (previous year: 2.4 %). For 2018, the IMF also expects a slightly lower growth rate in the price-adjusted gross domestic product of 2.3 % for Germany.

Mechanical engineering

The German Engineering Federation (VDMA) expects another strong growth of production in mechanical engineering in 2018 at the previous year's level of 3 %. At the beginning of 2018, capacity utilization in the domestic mechanical engineering industry was 87.9 %, well above the long-term industry average. The production curve shows a similar upward trend. Bottlenecks on machinery and systems are expected during the course of the year. The dynamism of the economy in the European mechanical engineering industry will continue with a focus on the core countries Germany and France.

For the US market, which is the industry's most important market, capital expenditures increased even further compared to 7 % in the previous year. The political developments and initial measures of the America First Policy and export tariffs limit a disproportionate development of exports to the United States. For the sales of machines in the Chinese market, a deceleration is expected compared to the previous year's increase of 24.2 %, which appears acceptable due to the trading volumes. For 2018, the VDMA expects growth to continue in the single-digit range.

As a whole, the industry's assessment is at a record level in terms of the overall economic situation and business development. Since the final quarter of 2017, the OECD leading indicator points to growth for the development of mechanical engineering in the EU. Corresponding forecasts show an identical picture for the development of production. Currently, the indicator shows a clearly positive development for the coming months at a value of 100.6. In the previous year, the comparative value was 100.4.

Order intake in the vacuum technology field increased by 1 % in real terms in the last quarter of 2017 compared to the previous year. This represents an increase of 3 percentage points compared to the development of the previous year. Overall, the forecasts for the mechanical engineering industry show another positive development of the high order and sales situation.

Development on the markets

Pfeiffer Vacuum divides its customers into the semiconductor, industrial, analytics, research & development and coating markets. Although the semiconductor market segment is generally considered to be cyclical, it has experienced a recovery since 2015, which reached a temporary high in 2017 with pronounced demand dynamics. Signals from the market and our key customers continue to suggest that this dynamics will continue beyond 2017, at least in the first half of 2018. There are unchanged good opportunities for the future: Pfeiffer Vacuum strongly believes that the demand for products from the semiconductor industry will generally grow at an above-average rate in view of the increasing complexity of digital innovations in almost all areas of daily life, even if this development is typically characterized by a strong cyclical nature.

In the industry market segment, order growth is mainly driven by new product developments and the general trend towards energy efficiency and resource conservation. Unchanged from previous years, Pfeiffer Vacuum also expects a comparatively stable growth trend here in the medium term. For the analytics market segment, Pfeiffer Vacuum expects moderate growth from the already high level of 2017. Analytical instruments are used in research and quality assurance activities in general industry and, particularly, in the semiconductor sector. The research & development market segment is dependent on political decisions concerning the funding of projects and research institutions. Here, we also estimate that sales will grow slightly in 2018.

The coating market segment includes customers in the fields of displays (LED, OLED), architectural glass, solar and many other areas of surface finishing. Demand in this sector has clearly gained momentum in 2017 and, according to our estimates, will show further sales improvement in 2018.

Sales development in 2018

Improved sales to customers in the semiconductor and coating industries combined with the company acquisitions made in the 2017 reporting year were the main drivers of revenue growth of 23.8 % to € 587.0 million in 2017. The sustained high demand throughout the year, in particular, from the semiconductor industry, was not expected at the beginning of 2017. So far, there are customer-specific and industry-specific signs of a continued strong level, at least in the first half of 2018. The visibility of orders remains unchanged at about two months. Following the Nor-Cal acquisition in mid-2017, this acquisition in 2018 will also be fully reflected in the sales volume.

For these reasons, and also in view of the outlined macroeconomic growth forecasts – both for the global economy and the engineering sector – Pfeiffer Vacuum expects a noticeable increase in sales for the entire year of 2018. However, this will be less pronounced than was the case in 2017 with a partly acquisition impacted increase of 23.8 %.

Earnings development

Continued optimization measures and the economies of scale resulting from the expected sales improvement as well as the disappearance of one-time expenses should contribute to a noticeable improvement in the operating results and the operating margin in 2018. However, this is offset by the PPA effects, which will also have an impact on the entire 2018 fiscal year. Financial expenses will increase as a result of borrowings related to the Nor-Cal acquisition. Nevertheless, due to the low level of interest rates, we expect the development of earnings before taxes to be largely in line with the development of the operating results. The Management Board and Supervisory Board have additionally decided on a new strategy, supporting a three year investment plan, providing for significantly increased annual investments, with a total volume of € 150.0 million. A materially higher share of the profits will be used to finance further growth in order to strengthen the technological leadership and competitiveness of Pfeiffer Vacuum. These include, in particular investments in the expansion and modernization of production capacities, intensification of research and development, fostering of industry 4.0 efforts as well as the expansion of the Group's global footprint in Asia as a whole and China in particular. The investments included in the total volume which are currently planned for 2018 amount to some € 40.0 million for the entire Group.

Dividend

Management and Supervisory Boards propose to pay out a dividend of € 2.00 per share for the fiscal year 2017 (previous year: € 3.60 per share). With a distribution volume of some € 19.7 million, this would result in 36.6 % of the net profit of the Group being paid out to shareholders.

DIVIDEND FIGURES

		2017	2016
Payout ratio[1]	in %	36.6	75.5
Dividend per share	in €	2.00[2]	3.60
Dividend yield	in %	1.3[2]	4.1

[1] (Proposed) dividend distribution in relation to the net income for that year
[2] Subject to approval by the Supervisory Board and the Annual General Meeting

Forward-looking statements

The statements, estimations and other information in this outlook are based upon assumptions about future overall economy and industry-specific developments. The assumptions are based upon the latest information available at the time of publication. Due to the inherent risks and uncertainties relating to the probability of the statements and estimations made here, actual developments may differ significantly.

Pfeiffer Vacuum will also remain a highly profitable Company in 2018. For the current 2018 fiscal year, we see a positive development in the profitability, financial position and liquidity of the Group. Overall, we are confident that we will be able to achieve this goal on the basis of the business development in 2017, the acquisitions that have been carried out and the thereby strengthened strategic focus on clearly defined target markets, as well as the current discussions with our customers. Our well-trained, motivated employees remain an indispensable prerequisite for this.

CONSOLIDATED FINANCIAL STATEMENTS

Consolidated Statements of Income Pfeiffer Vacuum Technology AG

in K €	Note	2017	2016
Net sales	31	586,962	474,244
Cost of sales	7, 15	– 376,945	– 293,769
Gross profit		**210,017**	180,475
Selling and marketing expenses	7	– 63,313	– 55,330
General and administrative expenses	7	– 48,976	– 35,733
Research and development expenses	7	— 27,763	– 26,282
Other operating income	8	10,345	10,818
Other operating expenses	8	– 8,924	– 5,972
Operating profit	31	**71,386**	67,976
Financial expenses	9, 32	– 693	– 662
Financial income	9, 13, 32	347	301
Earnings before taxes	24, 31	**71,040**	67,615
Income taxes	24	– 17,192	– 20,583
Net income		**53,848**	47,032
Earnings per share (in €):			
Basic	34	5.46	4.77
Diluted	34	5.46	4.77

Consolidated Statements of Comprehensive Income Pfeiffer Vacuum Technology AG

in K €	Note	2017	2016
Net income		**53,848**	47,032
Other comprehensive income			
Amounts to be reclassified to income statement in future periods (if applicable)			
Currency changes	21	– 13,252	673
Results from cash flow hedges	21, 32	588	– 588
Related deferred income tax effects	21	– 176	176
		– 12,840	261
Amounts not to be reclassified to income statement in future periods			
Valuation of defined benefit plans	21, 25	394	– 7,023
Related deferred income tax effects	21	– 515	1,857
		– 121	– 5,166
Other comprehensive income net of tax		**– 12,961**	– 4,905
Total comprehensive income net of tax		**40,887**	42,127

Consolidated Balance Sheets
Pfeiffer Vacuum Technology AG

in K€	Note	**Dec. 31, 2017**	Dec. 31, 2016
ASSETS			
Intangible assets	10	110,814	67,579
Property, plant and equipment	11	106,949	85,053
Investment properties	12	448	472
Shares in associated companies	13	—	1,636
Other financial assets	14	3,840	4,508
Deferred tax assets	24	23,037	23,312
Total non-current assets		**245,088**	182,560
Inventories	15	113,384	81,737
Trade accounts receivable	16	80,061	69,352
Income tax receivables		3,159	1,112
Prepaid expenses		2,475	3,099
Other accounts receivable	17	11,792	11,430
Cash and cash equivalents	18	97,402	110,032
Total current assets		**308,273**	276,762
Total assets	31	**553,361**	459,322
SHAREHOLDERS' EQUITY AND LIABILITIES			
Share capital	19	25,261	25,261
Additional paid-in capital	19	96,245	96,245
Retained earnings	20	229,747	211,423
Other equity components	21	– 30,316	– 17,355
Equity of Pfeiffer Vacuum Technology AG shareholders		**320,937**	315,574
Financial liabilities	23	60,248	—
Provisions for pensions	25	50,034	51,188
Deferred tax liabilities	24	3,988	1,848
Total non-current liabilities		**114,270**	53,036
Trade accounts payable	26	40,814	30,896
Customer deposits		7,678	4,928
Other accounts payable	27, 32	22,333	20,530
Provisions	28	39,894	29,767
Income tax liabilities		7,354	4,367
Financial liabilities	29	81	224
Total current liabilities		**118,154**	90,712
Total shareholders' equity and liabilities		**553,361**	459,322

Consolidated Statements of Shareholders' Equity Pfeiffer Vacuum Technology AG

in K €	Note	Share Capital	Additional Paid-in Capital	Retained Earnings	Other Equity Components	**Equity of Pfeiffer Vacuum Technology AG Shareholders**
Balance as at January 1, 2016		**25,261**	**96,245**	**195,968**	**– 12,450**	**305,024**
Net income		—	—	47,032	—	47,032
Earnings after taxes recorded directly in equity	21, 32	—	—	—	– 4,905	– 4,905
Total comprehensive income		—	—	**47,032**	**– 4,905**	**42,127**
Dividend payment	20	—	—	– 31,577	—	– 31,577
Balance as at December 31, 2016		**25,261**	**96,245**	**211,423**	**– 17,355**	**315,574**
Net income		—	—	53,848	—	53,848
Earnings after taxes recorded directly in equity	21, 32	—	—	—	– 12,961	– 12,961
Total comprehensive income		—	—	**53,848**	**– 12,961**	**40,887**
Dividend payment	20	—	—	– 35,524	—	– 35,524
Balance as at December 31, 2017		**25,261**	**96,245**	**229,747**	**– 30,316**	**320,937**

Consolidated Statements of Cash Flows Pfeiffer Vacuum Technology AG

in K €	Note	2017	2016
Cash flow from operating activities:			
Earnings before taxes	31	71,040	67,615
Adjustment for financial income/financial expenses		346	361
Financial income received		350	227
Financial expenses paid		– 1,053	– 1,020
Income taxes paid		– 17,441	– 17,165
Depreciation/amortization	10, 11, 12, 31	20,824	20,421
Gain/loss from disposals of assets		– 31	– 58
Changes in allowances for doubtful accounts	16	528	129
Changes in inventory reserves	15	2,702	2,180
Other non-cash income and expenses		116	321
Effects of changes in assets and liabilities:			
Inventories		– 15,248	– 5,960
Receivables and other assets		– 7,005	– 9,768
Provisions, including pensions, and income tax liabilities		5,983	– 1,147
Payables, customer deposits		10,285	7,480
Net cash provided by operating activities		**71,397**	**63,616**
Cash flow from investing activities:			
Payments for acquisitions	6	– 74,594	—
Capital expenditures	10, 11, 12, 31	– 27,678	– 18,018
Proceeds from disposals of fixed assets		249	574
Net cash used in investing activities		**-102,023**	**– 17,444**
Cash flow from financing activities:			
Proceeds from increase of financial liabilities		70,000	—
Dividend payments	20	– 35,524	– 31,577
Redemptions of financial liabilities		– 15,182	– 20,503
Net cash provided by/used in financing activities		**19,294**	**– 52,080**
Effects of foreign exchange rate changes on cash and cash equivalents		– 1,298	543
Net changes in cash and cash equivalents		**– 12,630**	**– 5,365**
Cash and cash equivalents at beginning of period		110,032	115,397
Cash and cash equivalents at end of period	18	**97,402**	110,032

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 Company is listed in the Prime Standard of Deutsche Börse Stock Exchange in Frankfurt am Main, Germany, where it is included in the TecDAX 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 developed and manufactured at the Company's production facilities in Asslar and Göttingen, Germany, as well as in Annecy, France and Asan, Republic of Korea, Indianapolis and Yreka in the United States, and Ho-Chi-Minh-City, Vietnam, 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 network of sales companies and independent marketing agents. Moreover, there are service support centers in all major industrial locations throughout the world. The Company'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, 2017, 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 published 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 are prepared essentially in accordance with the acquisition cost principle. However, this does not include derivative financial instruments, which are carried at fair values. 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 Company 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.

Associated companies are accounted for using the equity method. Companies are considered to be associated if Pfeiffer Vacuum Group has significant influence. Significant influence is the possibility to participate in financial or operational decisions but excluding control or joint decisions.

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 at December 31, 2017, or in previous years. Nor were there any investments in unconsolidated structured entities.

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 an impairment (impairment-only approach).

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 2017 the Company has applied the following new or amended IASB announcements that have been endorsed by the European Union (EU) for the first time, as application was mandatory.

NEW ANNOUNCEMENTS

	Issued by IASB/IFRS IC	Applicability [1]
Amendments to IAS 7: Disclosure Initiative	January 2016	January 1, 2017
Amendments to IAS 12: Recognition of Deferred Tax Assets for Unrealised Losses	January 2016	January 1, 2017

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

First-time application of IASB announcements did not impact the Consolidated Financial Statements. First-time application of „Amendments to IAS 7" caused additional disclosures in the Notes.

The following standards were endorsed by the EU but were not yet mandatorily applicable. Pfeiffer Vacuum will apply these standards beginning in fiscal years, for which application is mandatory in the EU.

NEW ANNOUNCEMENTS

	Issued by IASB/IFRS IC	Applicability [1]
Amendments to IAS 40: Transfers of Investment Property	December 2016	January 1, 2018
Amendments to IFRS 2: Classification and Measurement of Share-based Payment Transactions	June 2016	January 1, 2018
Amendments to IFRS 4: Applying IFRS 9 Financial Instruments with IFRS 4 Insurance Contracts	September 2016	January 1, 2018
Annual Improvements to IFRSs 2014–2016 Cycle	December 2016	January 1, 2018
IFRS 9 Financial Instruments	July 2014	January 1, 2018
IFRS 15 Revenue from Contracts with Customers (including amendments to IFRS 15: Effective date of IFRS 15)	May 2014	January 1, 2018
Clarifications to IFRS 15 Revenue from Contracts with Customers	April 2016	January 1, 2018
IFRS 16 Leases	January 2016	January 1, 2019

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

„Amendments to IAS 40", „Amendments to IFRS 2", „Amendments to IFRS 4" and the „Annual Improvements to IFRSs 2014–2016 Cycle" are not relevant for Pfeiffer Vacuum.

In July 2014 the IASB published the final version of IFRS 9 „Financial Instruments" which was endorsed by the EU in November 2016. The new IFRS 9 will replace the existing rules of IAS 39 „Financial Instruments: Recognition and Measurement". Mandatory application in fiscal year 2018 will not have any material impact on Pfeiffer Vacuum's Consolidated Financial Statements.

In May 2014 the IASB published IFRS 15 „Revenue from Contracts with Customers" which was endorsed by the EU in October 2016. In April 2016 the IASB published „Clarifications to IFRS 15 Revenue from Contracts with Customers" which were endorsed by the EU in November 2017. New IFRS 15 will replace IAS 11 „Construction Contracts", IAS 18 „Revenue" and the related interpretations. Mandatory application of IFRS 15 in fiscal year 2018 will have the following impacts on Pfeiffer Vacuum's Consolidated Financial Statements:

- To some extend product sales including extended warranty pledges will be subject to delayed sales recognition in future periods. The first-time application date is January 1, 2018, as Pfeiffer Vacuum decided to apply the modified retrospective method. As of this date, there are no adjustment impacts to be expected with regard to the warranty pledges because all sales revenues from the related customer contracts have either been fully recognized until January 1, 2018 or will have to be fully recognized after this date.
- Range and level of details of related Notes disclosures will increase following the first-time application of IFRS 15 in fiscal 2018.

In January 2016 the IASB published IFRS 16 „Leases" which was endorsed by the EU in November 2017. New IFRS 16 will replace IAS 17 „Leases "and the related interpretations. These new rules for accounting of leases will be mandatorily applicable for fiscal years beginning on or after January 1, 2019. First time application generally has to be effected retrospectively, but with a number of simplification rules available. An early adoption is permitted in case IFRS 15 is adopted, too. The option to voluntarily apply this standard ahead of time will not be utilized. The impact of first-time adoption of IFRS 16 in the Consolidated Financial Statements is currently being analyzed. A reliable estimate of quantitative impact cannot be made before the finalization of the ongoing project.

Based on the current conclusions Pfeiffer Vacuum expects the following qualitative changes in the Consolidated Financial Statements:

- While to date payment obligations from operating leases had to be disclosed in the Notes, the resulting rights-of-use and payment obligations in future will have to be recorded as usage right-of-use assets and lease liabilities in the balance sheet (so-called right-of-use approach).
- Pfeiffer Vacuum expects that the first-time application of this right-of-use approach as of the mandatory date will slightly increase the balance sheet total due to the increase in lease liabilities and a similar increase in fixed assets due the capitalized usage rights.
- The Consolidated Statements of Income will include amortization expenses as well as interest expenses instead of leasing expenses.

The following announcements were issued by the IASB or the IFRS IC but not yet endorsed by the EU:

NEW ANNOUNCEMENTS

	Issued by IASB/IFRS IC	Applicability
IFRS 17 Insurance Contracts	May 2017	January 1, 2021
IFRIC Interpretation 22 Foreign Currency Transactions and Advance Consideration	Dezember 2016	January 1, 2018
IFRIC Interpretation 23 Uncertainty over Income Tax Treatments	June 2017	January 1, 2019
Amendments to IFRS 9: Prepayment Features with Negative Compensation	October 2017	January 1, 2019
Amendments to IAS 19: Plan Amendment, Curtailment or Settlement	February 2018	January 1, 2019
Amendments to IAS 28: Long-term Interests in Associates and Joint Ventures	October 2017	January 1, 2019
Annual Improvements to IFRSs 2015–2017 Cycle	December 2017	January 1, 2019

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 announcements are currently being analyzed.

4. Accounting and valuation methods

Income recognition

Sales are recognized when the material risks and rewards relating to the ownership of the products sold passes to the purchaser, which is essentially the case when the goods are shipped. Should product sales be subject to customer acceptance, revenues are not recognized until customer acceptance has occurred. Service revenues are recognized when the underlying services are performed. These revenues include the invoiced working hours of the service personnel, as well as spare parts and replacement products. Rebates are recorded as a reduction of sales. Interest income is recorded when the interest originates. Rental income from investment properties is recorded on a straight-line basis over the term of the leases.

Cost of Sales

Cost of sales 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 costs including depreciation/amortization on production buildings and machines. In addition, freight costs, expenses for inventory valuation, and warranty expenses are included in here. Based on historical experience, warranty provisions for recognized revenues are recorded as at year-end.

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. In fiscal years 2017 and 2016 research and development costs were not capitalized.

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]	2–5 years

[1] With the exception of goodwill and a trademark recognized in connection with a purchase price allocation, there are no intangible assets with indefinite useful lives.

Scheduled depreciation and amortization are allocated to the expense lines in the income statement on the basis of the input involved. Repair and maintenance costs are expensed as incurred.

The Company reviews long-lived 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 Company 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 Company 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 IAS 39, "Financial Instruments: Recognition and Measurement," financial instruments are allocated to the following categories upon initial recognition:

- Financial assets at fair value through profit and loss (financial assets held for trading),
- Financial assets held-to-maturity,
- Loans and receivables,
- Financial assets available-for-sale,
- Financial liabilities at fair value through profit and loss (financial liabilities held for trading) and
- Financial liabilities measured at amortized cost.

Accounts receivable, in particular trade accounts receivable, are categorized as "loans and receivables" and are measured at (amortized) cost. They typically do not bear interest. Costs of acquisition are recorded at the invoiced amount (including any value added tax). The Company continuously assesses the adequacy of the allowances for doubtful accounts receivable and makes appropriate adjustments on the basis of both specific probability and aging distribution. Any subsequent reversal is recorded in the income statement in an amount not to exceed its carrying amount (net of amortization or depreciation). Receivables are derecognized after all means of collection have been exhausted.

The Company uses derivatives only to manage foreign currency exchange rate risks. Around 56 % (2016: 53 %) of total consolidated sales are invoiced in foreign currencies (non-euro, predominantly in U.S. dollars). The Company 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 purchased 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 of derivatives are determined on the balance sheet date using current reference quotations and taking into account forward premiums and discounts. Please refer to Note 32 for further information relating to financial instruments.

Trade accounts payable are categorized as financial liabilities and are measured at amortized cost. They are recorded at the higher of their notational value or their redemption amount at the close of the fiscal year, including any value added tax.

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.

Shares in associated companies

An associate is an entity over which the Company has significant influence. In distinguishing between significant influence and control, the Company considers all factors categorized substantial according to judgement. Associated companies are valued in accordance with the equity method, with the book value of the company being adjusted annually by the percentage of results, dividend distributions, and other changes to shareholders' equity. Any goodwill in connection with an associated company is included in the book value of the shareholdings, and is subjected to neither scheduled depreciation nor any special impairment test. If there are indications of an impairment, the equity investment valuation is reduced, with the change being charged to income.

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. Due to the short investment period, this line item is only subject to minor value fluctuations. Cash and cash equivalents are defined accordingly in the consolidated cash flow statements.

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.

Other accounts payable

Other accounts payable are measured at amortized costs. Thus, they are recorded at their notational value or at their higher redemption amount at the close of the fiscal year, including any value added tax.

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 ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. 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 IAS 17, "Leases," leasing contracts are classified as either finance or operating leases. Pfeiffer Vacuum is only acting as a lessee in this regard. Assets that are subject to operating leases are not capitalized. Lease payments are charged to income statement in the year they are incurred.

Under a finance lease, substantially all of the risks and rewards related to the leased asset are transferred. Assets that are subject to a finance lease are recorded at the present value of the minimum lease payments, with a leasing liability being recorded in the same amount. The periodic lease payments are divided into principal and interest components. While the interest component is recorded as an interest expense, the principal component reduces the outstanding leasing liability. Assets recognized are either depreciated over the term of the leasing agreement or over the estimated useful life of the respective asset.

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.

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 Company'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 at December 31, 2017, 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 2018 fiscal year.

Material forward-looking estimates and assumptions exist, among others, in estimating the cash flows in connection with the goodwill 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, 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 10. 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". Further details for provisions are described in Note 28 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, three German and 28 foreign subsidiaries are fully consolidated in the Company's Consolidated Financial Statements as at December 31, 2017 (Dec. 31, 2016: two German and 18 foreign subsidiaries).

PFEIFFER VACUUM GROUP AS AT DECEMBER 31, 2017

in %	Location	Holdings
Pfeiffer Vacuum Technology AG	Germany	
Pfeiffer Vacuum GmbH	Germany	100.0
Pfeiffer Vacuum Austria GmbH	Austria	100.0
Pfeiffer Vacuum (Schweiz) AG	Switzerland	99.4
Pfeiffer Vacuum (Shanghai) Co., Ltd.	China	100.0
Pfeiffer Vacuum (India) Private Ltd.	India	27.0 [1]
Pfeiffer Vacuum Ltd.	Great Britain	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.	The Netherlands	100.0
Pfeiffer Vacuum (Xi'an) Co., Ltd.	China	100.0
Pfeiffer Vacuum Malaysia SDN. BHD.	Malaysia	100.0
Pfeiffer Vacuum Inc.	USA	100.0
Pfeiffer Vacuum New Hampshire Realty Holdings, LLC.	USA	100.0
Advanced Test Concepts, 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 Europe Ltd.	Great Britain	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.	The 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	75.5 [1]
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 Semi Korea, Ltd.	Republic of Korea	100.0
Pfeiffer Vacuum Korea Ltd.	Republic of Korea	24.5 [1]
Dreebit GmbH	Germany	100.0

[1] Total Group holdings: 100.0%

6. Changes in consolidated companies

Acquisition of Nor-Cal Group

With effect from June 22, 2017, Pfeiffer Vacuum Technology AG indirectly via a US subsidiary acquired all shares of Nor-Cal Products Holdings, Inc. (Nor-Cal Inc.), Yreka, California, USA. At the same time further economically integrated but legally independent subsidiaries of Nor-Cal Products Holdings Inc. having their legal sites in the United States, Great Britain, the Republic of Korea, Singapore and Vietnam, were acquired. With the acquisition of these 100% shareholdings (Nor-Cal) Pfeiffer Vacuum significantly strengthened the position in the highly attractive market for vacuum components.

The fair values of Nor-Cal's identified assets and liabilities assumed as of June 22, 2017 (acquisition date) were comprised as follows:

FAIR VALUE OF ASSETS AND LIABILITIES ASSUMED

in K€	June 22, 2017
Assets	
Intangible Assets	24,196
Fixed assets	7,350
Inventories	18,268
Receivables	5,725
Cash and cash equivalents	4,033
Other assets	1,262
Total assets	**60,834**
Liabilities	
Deferred taxes	– 6,237
Tarde accounts payables	– 3,141
Provisions	– 1,627
Income tax liabilities	– 500
Financial liabilities	– 4,342
Other liabilities	– 1,451
Total liabilities	**– 17,298**
Total net assets (fair value)	**43,536**
Goodwill	20,832
Total consideration (purchase price)	**64,368**

Major differences between the fair values and the net book values related to the recognition of intangible assets previously not recorded, particularly customer base (€ 19.8 million), order backlog (€ 2.4 million) and developed technology (€ 1.8 million), as well as to the write-up of inventories (€ 4.1 million), tangible assets (€ 2.0 million), and the recognition of deferred tax liabilities for the fair value adjustments (€ 6.6 million). The purchase price comprises only a cash component. Taking into consideration the cash and cash equivalents acquired from Nor-Cal (K€ 4,033), the anticipated net cash used in connection with this corporate acquisition totaled K€ 60,335.

The gross amount of receivables assumed totaled € 5.9 million. Presumably € 0.2 million will not be collectible and were thus recorded with correspondingly reduced values.

The goodwill in the amount of € 20.8 million comprises the workforce taken over, existing contracts, implemented business processes and market position as well as the acquisition's general business opportunities. This includes synergy effects stemming from the broader product portfolio and the opportunity of being able to market this product portfolio via the expanded and integrated sales and marketing network. The goodwill is not expected to be able to be applied for tax purposes.

Nor-Cal's sales and net income contribution since June 22, 2017 totaled € 28.6 million, and € 1.9 million, respectively. Had the acquisition been effected at the outset of fiscal 2017, there would have been consolidated sales revenues of € 611.3 million. The consolidated net income would have been € 57.5 million taking into consideration the acquisition. The transaction costs incurred in fiscal 2017, which are to be borne by the Corporate Group, totaled K€ 638. They were attributable to legal and expertise fees and are included under general and administrative expenses.

Acquisition of Advanced Test Concepts Inc.

With effect from February 14, 2017, Pfeiffer Vacuum Technology AG indirectly via a US subsidiary acquired all shares of Advanced Test Concepts Inc. (ATC Inc.), Indianapolis, USA. At the same time, a further economically integrated but legally independent sister company of ATC Inc., having the same registered site, was acquired. With the acquisition of these 100% shareholdings Pfeiffer Vacuum consequently expanded its leak detection product portfolio.

In the meantime the acquired sister company to ATC Inc. was merged into ATC Inc. and ATC Inc. legal form was changed to LLC.

The fair values of ATC's identified assets and liabilities assumed as of February 14, 2017 (acquisition date) were comprised as follows:

FAIR VALUE OF ASSETS AND LIABILITIES ASSUMED

in K€	February 14, 2017
Assets	
Intangible Assets	3,464
Fixed assets	1,652
Inventories	2,582
Receivables	1,047
Cash and cash equivalents	161
Total assets	**8,906**
Liabilities	
Trade accounts payables	– 297
Other liabilities	– 216
Total liabilities	**– 513**
Total net assets (fair value)	**8,393**
Goodwill	3,402
Total consideration (purchase price)	**11,795**

Major differences between the fair values and the net book values related to the recognition of intangible assets previously not recorded, particularly customer base (€ 1.6 million), developed technology (€ 1.6 million), and a brand right (€ 0.3 million), as well as to the write-up of inventories (€ 1.2 million) and a write-down in fixed assets (€ – 0.4 million).

The purchase price comprises only a cash component. Taking into consideration the cash and cash equivalents acquired from ATC (K€ 161), the anticipated net cash used in connection with this corporate acquisition totaled K€ 11,634.

The gross amount of receivables assumed equaled its fair value.

The goodwill in the amount of € 3.4 million comprises the workforce taken over and the acquisition's general business opportunities. This includes synergy effects stemming from the broader product portfolio and the opportunity of being able to market this product portfolio via the expanded and integrated sales and marketing network. The goodwill is expected to be able to be applied for tax purposes.

ATC's sales and net income contribution since February 14, 2017 totaled € 6.2 million, and € – 0.2 million, respectively. Had the acquisition been effected at the outset of fiscal 2017, there would have been consolidated sales revenues of € 587.4 million. The consolidated net income would also have been € 53.8 million taking into consideration the acquisition. The transaction costs incurred in fiscal 2017, which are to be borne by the Corporate Group, totaled K€ 89. They were attributable to legal and expertise fees and are included under general and administrative expenses.

Acquisition of further 75.1 % of shares in Dreebit GmbH

With effect from February 13, 2017, Pfeiffer Vacuum Technology AG acquired all remaining shares of Dreebit GmbH, Dresden, Deutschland, and thus increased its shareholdings from 24.9 % to 100.0 %. The acquisition has to be seen in connection with strengthening the growth area service which is a major basis for the success of Pfeiffer Vacuum.

The fair values of Dreebit's identified assets and liabilities assumed as of February 13, 2017 (acquisition date) were comprised as follows:

FAIR VALUE OF ASSETS AND LIABILITIES ASSUMED

in K€	February 13, 2017
Assets	
Intangible Assets	189
Fixed assets	2,800
Inventories	1,284
Receivables	740
Cash and cash equivalents	375
Other assets	119
Total assets	**5,507**
Liabilities	
Deferred tax liabilities	– 207
Trade accounts payable	– 250
Provisions	– 597
Income tax liabilities	– 150
Financial liabilities	– 625
Other liabilities	– 556
Total liabilities	**– 2,385**
Total net assets (fair value)	**3,122**
Fair value of existing 24.9 % of shares as of the acquisition date	– 1,636
Goodwill	1,514
Total consideration (purchase price) of the remaining 75.1 % of shares	**3,000**

Major differences between the fair values and the net book values related to the write-up of fixed assets (€ 0.6 million) and the recognition of deferred tax liabilities for the fair value adjustments (€ 0.2 million).

The purchase price comprises only a cash component. Taking into consideration the cash and cash equivalents acquired from Dreebit (K€ 375), the anticipated net cash used in connection with this corporate acquisition totals K€ 2,625.

The gross amount of receivables assumed equaled its fair value.

The goodwill in the amount of € 1.5 million comprises the workforce taken over and the acquisition's general business opportunities. This includes synergy effects stemming from the expanded service offerings. The goodwill is not expected to be able to be applied for tax purposes.

Dreebit's sales and net income contribution since February 13, 2017 totaled € 6.6 million, and € 0.1 million, respectively. Had the acquisition been effected at the outset of fiscal 2017, there would have been consolidated sales revenues of € 587.8 million. The consolidated net income would have been € 53.9 million taking into consideration the acquisition. The transaction costs incurred in fiscal 2017, which are to be borne by the Corporate Group, totaled K€ 108. They were attributable to legal and expertise fees and are included under general and administrative expenses.

As of the acquisition date the fair value of the previously held equity portion equaled its book value.

Foundations in 2017

To address the increasing importance of regional markets the sales and service company Pfeiffer Vacuum Malaysia SDN. BHD. was founded in Malaysia in 2017. This did not have any material impact on the Consolidated Financial Statements. In connection with the reconstruction and expanding of a facility in the USA, Pfeiffer Vacuum New Hampshire Realty Holdings, LLC., was founded. Formation of Pfeiffer Vacuum Indiana Realty Holdings, LLC., and Pfeiffer Vacuum California Realty Holdings, LLC., has to be seen in the context of acquiring ATC and Nor-Cal, respectively. Each of the latter three entities is a mere holding entity for the real estate acquired.

Liquidations in 2017

In fiscal 2017 adixen Vacuum Technology (Shanghai) Co., Ltd., China, was liquidated and was thus disregarded from the scope of consolidation. This did not have any material impact on the Consolidated Financial Statements.

Notes to the Consolidated Statements of Income

7. 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, audit and other general consulting fees, as well as all costs relating to the Company 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 € 2.8 million in 2017 (2016: € 2.8 million) and are also included in research and development expenses.

For analysis of sales revenues please refer to the segment reporting in Note 31. 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), and to Note 37 (relating to development of personnel expenses).

8. Other operating income and other operating expenses

Other operating income and expenses are comprised as follows:

COMPOSITION OF OTHER OPERATING INCOME AND EXPENSES

in K€	**2017**	2016
Foreign exchange gains	5,781	6,169
Government grants	3,117	4,351
Other	1,447	298
Other operating income	**10,345**	10,818
Foreign exchange losses	– 8,748	– 5,740
Others	– 176	– 232
Other operating expenses	**– 8,924**	– 5,972

9. Financial expenses and financial income

Financial expenses and financial income as recorded in 2017 and the previous year comprises as follows:

COMPOSITION OF FINANCIAL INCOME AND FINANCIAL EXPENSES

in K€	**2017**	2016
Interest expenses and similar	– 693	– 662
Total financial expenses	**– 693**	– 662
Interest income	347	283
Income from associated companies	—	18
Total financial income	**347**	301
Financial result	**– 346**	– 361

Notes to the Consolidated Balance Sheets

10. 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 2017 and 2016 was as follows:

DEVELOPMENT OF INTANGIBLE ASSETS IN 2017

in K€	Software	Goodwill	Customer base	Other intangible assets	**Total**
Acquisition cost					
Balance as at January 1, 2017	7,130	56,800	21,435	26,920	112,285
Currency changes	– 14	– 3,249	– 2,289	– 633	– 6,185
Additions	1,104	—	—	524	1,628
Disposals	– 3	—	—	– 10	– 13
Additions from acquisitions	193	25,748	21,349	6,307	53,597
Balance as at December 31, 2017	8,410	79,299	40,495	33,108	161,312
Amortization					
Balance as at January 1, 2017	4,235	—	21,435	19,036	44,706
Currency changes	– 13	—	– 807	– 96	– 916
Additions	974	—	976	4,771	6,721
Disposals	– 3	—	—	– 10	– 13
Balance as at December 31, 2017	5,193	—	21,604	23,701	50,498
Net book value as at December 31, 2017	3,217	79,299	**18,891**	9,407	**110,814**

DEVELOPMENT OF INTANGIBLE ASSETS IN 2016

in K€	Software	Goodwill	Customer base	Other intangible assets	**Total**
Acquisition cost					
Balance as at January 1, 2016	6,290	56,630	21,313	26,682	110,915
Currency changes	– 1	170	122	18	309
Additions	1,675	—	—	220	1,895
Disposals	– 834	—	—	—	– 834
Balance as at December 31, 2016	7,130	56,800	21,435	26,920	112,285
Amortization					
Balance as at January 1, 2016	3,967	—	17,760	15,792	37,519
Currency changes	– 1	—	492	—	491
Additions	838	—	3,183	3,244	7,265
Disposals	– 569	—	—	—	– 569
Balance as at December 31, 2016	4,235	—	21,435	19,036	44,706
Net book value as at December 31, 2016	**2,895**	**56,800**	**—**	**7,884**	**67,579**

Impairment losses or respective reversals did not have to be recorded for intangible assets in fiscal 2017 and 2016.

For the purpose of testing the recoverability, goodwill and trademark rights with indefinite useful life recognized in connection with acquisitions were allocated to cash generating units. Recoverability was tested on December 31, 2017 by means of an impairment test.

The trademark right "adixen" recognized in connection with the acquisition (net book value € 3.2 million; 2016: € 3.4 million) has an indefinite useful life and was allocated to the business segments based on sales portions. Here, amongst others, € 0.8 million related to France, € 1.0 million to the Republic of Korea, and € 0.6 million to the USA. No impairment was determined under the impairment test conducted on December 31, 2017.

The recoverable amount (value in use) for impairment testing of the goodwill was determined as at December 31, 2017. Bases were cash flow forecasts for the years 2018 through 2020. These forecasts are developed from the yearly sales and cost planning and the corresponding operating results. In doing so, the current operating results as well as the expected market, economic, and competitor developments are considered and checked against the historical results. The cash flows expected after the detailed forecast were extrapolated using individual growth rates. Discounting of cash flows is carried out using weighted average cost of capital (WACC) that also reflect country specific risks.

The recoverable amount (value in use) for impairment testing of the goodwill recognized in connection with the adixen acquisition (€ 47.1 million; 2016: € 48.4 million) was determined as at December 31, 2017, based on cash generating units. The adixen goodwill allocation to the cash generating units and the major assumptions used in calculating the recoverable amount are detailed in the following table.

ALLOCATION OF ADIXEN GOODWILL AND MAJOR VALUATION ASSUMPTIONS

	December 31, 2017			December 31, 2016		
	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	3.4	9.0	1.5	3.4	7.8	1.5
France	22.9	11.1	1.5	22.9	9.3	1.5
Rest of Europe	2.7	11.6	1.5	2.8	10.3	1.5
USA	7.4	8.5	1.5	8.4	8.9	1.5
Republic of Korea	4.3	9.7	1.5	4.4	8.4	1.5
China	4.1	9.8	1.5	4.3	8.7	1.5
Rest of Asia	2.3	10.7	1.5	2.2	9.4	1.5

The determination of the previously mentioned goodwill did not result in any impairment loss.

The recoverable amount (value in use) for impairment testing of the goodwill recognized in connection with the Trinos acquisition (again € 8.2 million) was also determined as at December 31, 2017. The cash flows expected for this separate cash generating unit after the detailed forecast for 2018 through 2020 were extrapolated using a growth rate of 1.5 % (unchanged). The pre-tax discount rate employed was 9.4 % (2016: 8.1 %). The determination of this value did not result in an impairment.

The recoverable amounts (value in use) for impairment testing of the goodwill recognized in connection with acquisitions of Nor-Cal (€ 19.4 million), ATC (€ 3.0 million) and Dreebit (€ 1.5 million) were also determined as at December 31, 2017. The cash flows expected for each of these separate cash generating units after the detailed forecast for 2018 through 2020 were extrapolated using a growth rates of 1.5 % (unchanged). The pre-tax discount rates employed were 9.7 % (Nor-Cal), 12.9 % (ATC), and 9.2 % (Dreebit), respectively. The determination of these values also did not result in an impairment.

Basically no reasonably possible change in a key assumption would cause each unit's carrying amount to exceed its recoverable amount. In contrast, an increase in discount rate by 0.15 %-point with all other assumptions kept constant would cause the recoverable amount (value in use) of the goodwill allocated to the Italy region to match its net book value (2016: 0.75 %-points). The same situation would result from a 0.1 %-point to 4.95 % reduction of the sustainable EBIT margin used for the cash flow extrapolation or a 0.2 % point reduction in the sustainable sales growth rate or a reduction of the sustainable free cash flow by K€ 15 used for the cash flow extrapolation (2016: 0.75 %-points, 0.9 %-points, and K€ 66, respectively). An increase in discount rate by 0.3 %-points with all other assumptions kept constant would cause the recoverable amount (value in use) of the goodwill allocated to the China region to match its net book value (2016: 1.2 %-points). The same situation would result from a 0.3 %-point to 4.2 % reduction of the sustainable EBIT margin used for the cash flow extrapolation or a 0.4 %-point reduction in the sustainable sales growth rate or a reduction of the sustainable free cash flow by K€ 60 used for the cash flow extrapolation (2016: 1.1 %-points, 1.3 %-points, and K€ 181, respectively). An increase in discount rate by 0.25 %-points with all other assumptions kept constant would cause the recoverable amount (value in use) of the goodwill allocated for the first time for Dreebit to match its net book value. The same situation would result from a 0.30 %-point to 4.1 % reduction of the sustainable EBIT margin used for the cash flow extrapolation or a 0.3 %-point reduction in the sustainable sales growth rate or a reduction of the sustainable free cash flow by K€ 20 used for the cash flow extrapolation. As of December 31, 2017, the amount by which the value in use exceeded the respective unit's net book value for the said three cash generating units in Italy and China and for Dreebit totaled € 0.1 million, € 0.8 million, and € 0.3 million, respectively.

11. Property, plant and equipment

DEVELOPMENT OF PROPERTY, PLANT AND EQUIPMENT 2017

in K€	Land and Buildings	Technical Equipment and Machinery	Other Equipment, Factory and Office Equipment	Construction in Progress	Total
Acquisition or manufacturing cost					
Balance as at January 1, 2017	74,230	80,779	30,510	4,818	190,337
Currency changes	– 912	– 633	– 454	– 259	– 2,258
Additions	5,577	6,241	3,194	11,038	26,050
Disposals	– 162	– 1,707	– 717	—	– 2,586
Additions from acquisitions	7,746	3,455	601	—	11,802
Reclassifications	894	3,261	196	– 4,351	—
Balance as at December 31, 2017	87,373	91,396	33,330	11,246	223,345
Depreciation					
Balance as at January 1, 2017	33,549	53,388	18,347	—	105,284
Currency changes	– 40	– 286	– 273	—	– 599
Additions	3,917	7,052	3,110	—	14,079
Disposals	– 158	– 1,640	– 570	—	– 2,368
Balance as at December 31, 2017	37,268	58,514	20,614	—	116,396
Net book value as at December 31, 2017	**50,105**	**32,882**	**12,716**	**11,246**	**106,949**

DEVELOPMENT OF PROPERTY, PLANT AND EQUIPMENT 2016

in K€	Land and Buildings	Technical Equipment and Machinery	Other Equipment, Factory and Office Equipment	Construction in Progress	Total
Acquisition or manufacturing cost					
Balance as at January 1, 2016	71,820	74,299	27,301	3,145	176,565
Currency changes	– 54	87	5	8	46
Additions	1,334	6,624	3,006	5,159	16,123
Disposals	– 414	– 1,033	– 950	—	– 2,397
Reclassifications	1,544	802	1,148	– 3,494	—
Balance as at December 31, 2016	74,230	80,779	30,510	4,818	190,337
Depreciation					
Balance as at January 1, 2016	30,507	47,487	16,260	—	94,254
Currency changes	– 50	102	– 8	—	44
Additions	3,506	6,786	2,840	—	13,132
Disposals	– 414	– 987	– 745	—	– 2,146
Balance as at December 31, 2016	33,549	53,388	18,347	—	105,284
Net book value as at December 31, 2016	**40,681**	**27,391**	**12,163**	**4,818**	**85,053**

In fiscal 2017, no buildings and machinery were used as collateral to secure the Group's financial liabilities (2016: K€ 3,429).

Neither in 2017 nor in the previous year there were any impairment losses or related reversals for property, plant, and equipment.

12. Investment properties

DEVELOPMENT OF INVESTMENT PROPERTIES

in K€	2017	2016
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	389	365
Additions	24	24
Disposals	—	—
Reclassifications	—	—
Balance as at December 31	413	389
Net book value as at December 31	**448**	472

The real estate shown in this line item was rented out in fiscal 2017 and 2016. Rental revenues amounted to K€ 55 (2016: K€ 51) and direct operating expenses amounted to K€ 27, unchanged to the previous year. Impairment losses or related reversals did not have to be recorded in 2017 and 2016.

The fair value of investment properties remains unchanged at € 0.5 million as per December 31, 2017 and 2016. Fair values were derived on the basis of the Company'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).

13. Shares in associated companies

As at December 31, 2016, only the shares in Dreebit were recorded in this position. Following the acquisition of all remaining shares at the beginning of 2017 this entity is now fully consolidated in the Consolidated Financial Statements (please refer to Note 6). Disclosure under shares in associated companies thus no longer applies.

COMPOSITION OF EQUITY VALUE

in K€	2017	2016
Current assets	—	2,623
Non-current assets	—	6,229
Current liabilities	—	– 2,283
Non-current liabilities	—	—
Total Equity	**—**	**6,569**
Holdings quota	—	24.90 %
Equity Value	**—**	**1,636**

Dec. 31

With sales of K€ 6,900 Dreebit in 2016 generated a net income of K€ 71. The impact of the change in the investment book value is shown in the financial income 2016, please refer to Note 9.

14. Other financial assets

Other financial assets include non-current financial assets, mainly cash items K€ 2,377 (2016: K€ 3,150) and deposits K€ 949 (2016: K€ 915).

15. Inventories

COMPOSITION OF INVENTORIES

in K€	2017	2016
Raw materials	31,816	26,778
Work in process	28,667	23,725
Finished products	52,901	31,234
Total inventories, net	**113,384**	81,737

Dec. 31

Materials consumption in fiscal 2017 amounted to € 218.5 million (2016: € 180.6 million) and is included in cost of sales.

In 2017, an amount of K€ 2,702 (2016: K€ 2,180) 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

In connection with its normal course of business, the Company extends credit to a wide variety of business customers. The Company performs ongoing credit evaluations of its customers and establishes adequate allowances for identified credit risks. Trade accounts receivable do not bear any interest and have a remaining term of less than one year.

COMPOSITION OF TRADE ACCOUNTS RECEIVABLE

in K€	2017	2016
Trade accounts receivable	80,780	69,980
Allowance for doubtful accounts	– 719	– 628
Trade accounts receivable, net	**80,061**	69,352

Dec. 31

SUMMARY OF ACTIVITY IN THE ALLOWANCE FOR DOUBTFUL ACCOUNTS

in K€	2017	2016
Balance as at January 1	628	1,196
Currency changes	– 36	– 9
Additions	528	129
Utilization	– 401	– 688
Balance as at December 31	**719**	628

COMPOSITION OF UNRESERVED TRADE ACCOUNTS RECEIVABLE

in K€	Net Book Value	Thereof: Unreserved and not Overdue	Thereof: Unreserved and Overdue in the Following Periods					
			< 30 Days	30 – 60 Days	61 – 90 Days	91 – 180 Days	181 – 360 Days	> 360 Days
2017	**80,061**	**59,655**	**14,099**	**2,842**	**1,420**	**1,105**	**330**	**221**
2016	69,352	55,684	9,319	2,240	751	402	227	280

Dec. 31

As at December 31, 2017 receivables with a nominal value of K€ 1,108 were subject to allowances for doubtful accounts (December 31, 2016: K€ 1,077).

In 2017, expenses for derecognition of unreserved receivables amounted to K€ 4 (2016: K€ 51).

17. Other accounts receivable

This line item totaled K€ 11,792 as at December 31, 2017 (December 31, 2016: K€ 11,430). As in the year before, this position was characterized by expense subsidies of K€ 5,313 (December 31, 2016: K€ 3,047) and VAT claims of K€ 3,239 (December 31, 2016: K€ 1,492).

Asserted indemnity claims in connection with a former acquisition that were included here in the prior year were realized in fiscal 2017. Realized amounts exceeding the recorded claims were shown in other operating income.

18. Cash and cash equivalents

The cash and cash equivalents item consists of cash at banks and cash on hand. Additionally, the Company 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 Shareholders Meeting on May 24, 2016, authorized the Management Board to increase the Company'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, 2021, and is subject to the consent of the Supervisory Board.

According to the resolution of the Annual Shareholders Meeting on May 22, 2014, the Management Board is authorized to issue fractional bonds with option or conversion rights 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 Company having a pro-rata amount of up to € 6,315,299.84 of the share capital. This authorization is valid until May 21, 2019, and requires the consent of the Supervisory Board.

There were no changes of the additional paid-in capital in 2017 or 2016.

20. Paid and proposed dividends

The Annual General Meeting on May 23, 2017, resolved to pay a dividend of € 3.60 per share (Annual Shareholders Meeting on May 24, 2016: € 3.20 per share). The dividend payment carried out thereunder amounted to K€ 35,524 in 2017 (2016: K€ 31,577).

Management and Supervisory Boards propose to let shareholders participate in the Company's success via a dividend in the amount of € 2.00 per share. This proposal is subject to the approval of the Annual General Meeting. Because the proposal must be approved by the Annual General Meeting, the resulting payment of K€ 19,735 has not been recorded as a liability in the balance sheet for the fiscal year ended December 31, 2017.

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

in K€	Actuarial Gains/Losses	Unrealized Gains/Losses on Hedges	Foreign Currency Translation Adjustments	Total
Balance as at January 1, 2016	– 25,003	—	12,553	**– 12,450**
Changes in actuarial gains/losses (net of tax)	– 5,166	—	—	– 5,166
Changes in fair value of cash flow hedges (net of tax)	—	– 412	—	– 412
Changes in foreign currency translation	—	—	673	673
Balance as at December 31, 2016	– 30,169	– 412	13,226	**– 17,355**
Changes in actuarial gains/losses (net of tax)	– 121	—	—	– 121
Changes in fair value of cash flow hedges (net of tax)	—	412	—	412
Changes in foreign currency translation	—	—	– 13,252	– 13,252
Balance as at December 31, 2017	– 30,290	—	– 26	**– 30,316**

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 form changes during the respective year and thus not from prior years.

TAX EFFECT ON OTHER COMPREHENSIVE INCOME

	2017			2016		
in K€	Gross Amount	Tax Effect	Net Amount	Gross Amount	Tax Effect	Net Amount
Actuarial gains/losses	394	– 515	– 121	– 7,023	1,857	– 5,166
Cash flow hedges	588	– 176	412	– 588	176	– 412
Currency changes	– 13,252	—	– 13,252	673	—	673
Total other comprehensive income	**– 12,270**	**– 691**	**– 12,961**	– 6,938	2,033	– 4,905

Dec. 31

22. Treasury shares

At the Annual Shareholders Meeting on May 21, 2015, 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 Company 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 20, 2020.

23. Long-term financial liabilities

In connection with the acquisition of Nor-Cal Products Holdings Inc. and its subsidiaries, long-term financial liabilities having a net cash inflow of € 70.0 million were taken out in the course of 2017. With it, an existing credit line was amended. These liabilities have a Euribor-based variable interest rate including an arm's-length margin. Interest clearing is made quarterly. Again for the fiscal year 2017, interest expenses totaling € 0.3 million were recorded. Under the loan agreement, the Group has committed to comply with a determined financial ratio. The Company has clearly complied with this ratio in 2017 and 2016.

Pfeiffer Vacuum and its subsidiaries have various lines of credit available to them for operating purposes, totaling approximately € 13.6 million (December 31, 2016: € 53.7 million).

Financial obligations as shown under short and long-term financial liabilities may result in cash flows from financing activities in future reporting periods. Changes of these financial liabilities in fiscal years 2017 and 2016 predominantly consisted of cash-based changes. Within the framework of the Nor-Cal acquisition on June 22, 2017, finance lease liabilities totaling € 0.3 million were assumed (please refer to Note 6). This was a non-cash change.

24. Income taxes

Under current German corporate tax law, taxes on the income of German companies comprise corporate taxes, trade taxes, and an additional surtax.

INCOME BEFORE TAX WAS TAXABLE IN THE FOLLOWING JURISDICTIONS

in K€	2017	2016
Germany	33,715	43,354
Outside Germany	37,325	24,261
Total	**71,040**	67,615

COMPOSITION OF INCOME TAX EXPENSE

in K€	2017	2016
Current taxes		
Germany	– 10,593	– 12,651
Outside Germany	– 11,304	– 8,859
	– 21,897	– 21,510
Deferred taxes		
Germany	344	– 1
Outside Germany	4,361	928
	4,705	927
Income tax expense	**– 17,192**	– 20,583

K€ 22,301 of current tax expense relate to earnings in 2017 (2016: K€ 20,183). This line item additionally contains tax income for prior years amounting to K€ 404 (2016: tax expenses of K€ 1,327).

RECONCILIATION FROM EXPECTED TO ACTUAL INCOME TAX EXPENSE

in K€	2017	2016
Earnings before taxes	71,040	67,615
Expected tax expense using the tax rate of the parent company (28.81 %)	– 20,467	– 19,480
Non-deductible expenses	– 1,019	– 1,100
Effects due to dividend payments	– 180	– 182
Deferred tax changes due to changes in tax laws	1,924	—
Non-taxable income	1,902	1,306
Tax credits/debits due to tax filings in prior years	404	– 1,327
Difference foreign tax rates	257	106
Other	– 13	94
Income tax expense	**– 17,192**	– 20,583

As opposed to 30.4 % the year before, the tax ratio for the Pfeiffer Vacuum Group amounted to 24.2 % in 2017.

DEFERRED TAXES RELATE TO THE FOLLOWING BALANCE SHEET ITEMS

in K€	2017	2016
Deferred tax assets		
Pensions	16,887	18,385
Inventories	5,184	5,722
Personnel and other provisions	4,106	3,537
Tax credits	2,152	-
Tax loss carry forwards	1,270	733
Property, plant and equipment	688	246
Intangible assets	591	138
Receivables (including allowances for doubtful accounts)	328	172
Derivatives	3	288
Other	73	43
Total deferred tax assets	**31,282**	29,264
Deferred tax liabilities		
Intangible assets	– 6,750	– 2,349
Property, plant and equipment	– 5,424	– 5,003
Receivables (including allowances for doubtful accounts)	– 51	– 285
Inventories	– 8	– 26
Personnel and other provisions	—	– 137
Total deferred tax liabilities	**– 12,233**	– 7,800
Total deferred taxes, net	**19,049**	21,464

Dec. 31

AMOUNTS RECORDED IN THE BALANCE SHEET

in K€	2017	2016
Deferred tax assets	23,037	23,312
Deferred tax liabilities	– 3,988	– 1,848
Total deferred taxes, net	**19,049**	21,464

Dec. 31

DEFERRED TAXES RECORDED IN THE INCOME STATEMENT

in K€	2017	2016
Intangible assets	4,736	2,092
Property, plant and equipment	952	762
Tax credits	500	—
Receivables (including allowances for doubtful accounts)	337	– 248
Inventories	333	– 337
Personnel and other provisions	8	787
Tax loss carry forwards	– 1,300	– 1,881
Pensions	– 781	– 313
Derivatives	– 109	93
Tax-privileged reserves of a Swedish subsidiary	—	47
Other	29	– 75
Total deferred taxes (income)	**4,705**	927

As at December 31, 2017, the total deferred tax assets include income taxes recorded directly in equity in the amount of K€ 11,784 (December 31, 2016: K€ 12,475). The total deferred tax liabilities include no income taxes recorded directly in equity. The amount recorded directly in equity in 2017 only related to actuarial gains/losses (2016: actuarial gains/losses and derivatives/hedging).

For tax losses totaling K€ 2,213 (thereof K€ 372 deductible until 2018, K€ 205 deductible until 2019, K€ 133 deductible until 2020, K€ 1,055 deductible until 2021 and K€ 220 deductible until 2022), no deferred tax assets have been recorded as these losses will presumably not be offset against taxable gains until the expiration.

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.

25. Pensions and similar obligations

Defined benefit pension plans

COMPOSITION OF THE NET LIABILITY RECORDED IN THE BALANCE SHEET

in K€	2017	2016
Present value of funded defined benefit obligation	101,010	99,782
Present value of unfunded defined benefit obligation	10,526	10,231
Total present value of defined benefit obligation	111,536	110,013
Fair value of plan assets	– 61,502	– 58,825
Net defined benefit liability	**50,034**	51,188

Dec. 31

REGIONAL SPLIT OF THE NET LIABILITY RECORDED IN THE BALANCE SHEET

in K€	2017	2016
Germany	36,302	36,813
Europe (excluding Germany)	9,263	8,893
Rest of world	4,469	5,482
Net defined benefit liability	**50,034**	51,188

Dec. 31

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 re-appointed 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. These benefit obligations are detailed in the compensation report (an element of MD&A).

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 Semi 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 Semi Korea, Ltd. is partially funded. There are no legally binding minimum funding requirements in France or the Republic of Korea. A Dutch pension plan was realigned in fiscal 2016 and was thus no longer considered a defined benefit plan as of December 31, 2016. The adjustment impacts were shown as plan curtailments/settlements in the prior year.

COMPOSITION OF THE NET PENSION EXPENSES

in K€	2017	2016
Current service cost	3,654	3,433
Net interest expense	936	953
Income from plan curtailments/settlements	—	– 267
Net pension expenses	**4,590**	4,119

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

DEVELOPMENT OF THE DEFINED BENEFIT OBLIGATION

in K€	2017	2016
Present value of defined benefit obligation as at January 1	110,013	102,507
Current service cost	3,654	3,433
Interest cost on the defined benefit obligation	2,099	2,352
Actuarial gains/losses from changes in demographic assumptions	– 341	676
Actuarial gains/losses from changes in financial assumptions	638	6,027
Actuarial experience gains/losses	115	– 371
Benefits paid	– 3,510	– 3,506
Curtailments/settlements	—	– 1,434
Currency changes	– 1,132	329
Present value of defined benefit obligation as at December 31	**111,536**	110,013
Thereof attributable to:		
Active employees	61,022	64,887
Deferred employees	9,677	4,192
Pensioners	40,837	40,934

DEVELOPMENT OF PLAN ASSETS

in K€	2017	2016
Fair value of plan assets as at January 1	58,825	59,010
Interest income	1,163	1,399
Experience gains/losses	656	– 645
Company contributions	5,137	3,531
Benefit payments	– 3,510	– 3,506
Curtailments/settlements	—	– 1,167
Currency changes	– 769	203
Fair value of plan assets as at December 31	**61,502**	58,825

ACTUARIAL ASSUMPTIONS

in %	2017	2016
Germany		
Discount rate	1.75	1.75
Wage and salary trend	3.00	3.00
Pension trend	2.00	2.00
United States		
Discount rate	3.80	4.40
Wage and salary trend	2.00	2.00
France, Republic of Korea		
Discount rate (weighted average)	1.99	1.83
Wage and salary trend (weighted average)	3.39	3.35

Dec. 31

COMPOSITION OF PLAN ASSETS

	2017		2016	
	in K€	in %	in K€	in %
Equity securities	20,289	33.0	13,816	23.5
Debt securities	36,002	58.5	40,078	68.1
Cash and cash equivalents	2,367	3.9	3,714	6.3
Other	2,844	4.6	1,217	2.1
Total	**61,502**	**100.0**	58,825	100.0

Dec. 31

With the exemption of plan assets in the category “Other” totaling K€ 1,745 (December 31, 2016: K€ 621), all plan assets are traded on an active market.

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

Accounting for 87 % 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 2017

	Change in actuarial assumption	Impact on defined benefit obligation	
		in K€	in %
Present value of defined benefit obligation as at December 31, 2017		111,536	
Discount rate	1.0 %-point increase	– 14,472	– 13.0
	1.0 %-point decrease	18,392	16.5
Pension trend	0.25 %-point increase	2,592	2.3
	0.25 %-point decrease	– 2,476	– 2.2
Wage and salary trend	0.5 %-point increase	1,844	1.7
	0.5 %-point decrease	– 1,746	– 1.6
Life expectancy	increase by 1 year	4,252	3.8
	decrease by 1 year	– 4,265	– 3.8

Dec. 31

SENSITIVITY ANALYSIS 2016

	Change in actuarial assumption	Impact on defined benefit obligation	
		in K€	in %
Present value of defined benefit obligation as at December 31, 2016		110,013	
Discount rate	1.0 %-point increase	– 14,638	– 13.3
	1.0 %-point decrease	18,685	17.0
Pension trend	0.25 %-point increase	2,609	2.4
	0.25 %-point decrease	– 2,492	– 2.3
Wage and salary trend	0.5 %-point increase	2,096	1.9
	0.5 %-point decrease	– 1,983	– 1.8
Life expectancy	increase by 1 year	4,215	3.8
	decrease by 1 year	– 4,227	– 3.8

Dec. 31

EXPECTED MATURITY OF UNDISCOUNTED PENSION PAYMENTS

in K€	2017	2016
Less than 1 year	3,494	3,800
Between 1 and 2 years	3,652	4,014
Between 2 and 3 years	3,940	4,021
Between 3 and 4 years	3,976	4,497
Between 4 and 5 years	4,515	4,644
More than 5 until 10 years	26,273	28,718

Dec. 31

The weighted average duration of the defined benefit obligation at December 31, 2017 amounted to 16.1 years (December 31, 2016: 16.1 years). The expected contributions for defined benefit plans in 2018 will be approximately € 3.5 million.

Defined contribution plans

Employees of the Company 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€ 11,805 in 2017 (2016: K€ 10,375).

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. Other payables

Other payables (K€ 22,333 as at December 31, 2017, and K€ 20,530 as at December 31, 2016) 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.

28. Provisions

COMPOSITION OF PROVISIONS

in K€	2017	2016
Personnel provisions	19,896	13,775
Warranty provisions	15,769	13,062
Other provisions	4,229	2,930
Total	**39,894**	29,767

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.

DEVELOPMENT OF PROVISIONS

in K €	Personnel	Warranty	Other	Total
Balance as at January 1, 2017	13,775	13,062	2,930	29,767
Currency changes	– 424	– 169	– 110	– 703
Additions	16,844	11,835	3,742	32,421
Utilization	– 11,494	– 8,974	– 2,779	– 23,247
Releases	– 568	—	—	– 568
Additions from acquisitions	1,763	15	446	2,224
Balance as at December 31, 2017	**19,896**	**15,769**	**4,229**	**39,894**

29. Short-term financial liabilities

As of December 31, 2017, short-term financial liabilities include bank liabilities in the amount of € 0.1 million maturing within one year (December 31, 2016: € 0.2 million).

30. Commitments and other financial obligations

The Company 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.

CONTRACTUAL OBLIGATIONS AS AT DECEMBER 31, 2017

		Payments Due by Period			
in K €	Total	< 1 Year	1 – 3 Years	3 – 5 Years	> 5 Years
Operating leases	11,624	3,742	4,736	2,072	1,074
Purchase obligations	23,430	19,556	3,874	—	—
Repair and maintenance	2,665	2,410	188	57	10
Total	**37,719**	25,708	8,798	2,129	1,084

CONTRACTUAL OBLIGATIONS AS AT DECEMBER 31, 2016

		Payments Due by Period			
in K €	Total	< 1 Year	1 – 3 Years	3 – 5 Years	> 5 Years
Operating leases	8,914	3,512	2,989	2,369	44
Purchase obligations	15,033	11,984	3,049	—	—
Repair and maintenance	2,289	1,993	239	47	10
Total	**26,236**	17,489	6,277	2,416	54

Purchase obligations include long-term arrangements for future supplies of materials. Rental expenses amounted to € 5.0 million (2016: € 4.2 million) and mainly related to the local sales companies' rented premises.

31. Segment reporting

The Company'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 are independent legal entities with their own management, which distribute products and provide services. 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 Company identifies its primary operating segments by legal entity. Due to the similarity of their economic characteristics, including nature of products sold, type of customers, methods of product distribution, and economic environment, the Company basically aggregates its European and Asian subsidiaries into one reporting segment, "Europe (excluding Germany and France)" and "Asia (excluding Republic of Korea)". In contrast, the companies in France and the Republic of Korea were presented separately each as an individual segment. This was caused by the different functions of the French entities, including research and development as well as production, and the production function of the Korean entities, respectively. Unchanged compared to previous year, all information is based upon the geographic location of the Group Company in question.

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.

SEGMENT REPORTING AS AT DECEMBER 31, 2017

in K€	Germany	France	Europe (excl. G and F)	USA	Republic of Korea	Asia (excl. Korea)	Other / Consolidation	**Group**
Net sales	253,149	209,902	99,696	145,415	103,838	74,758	– 299,796	586,962
Third party	134,767	45,546	95,092	142,145	101,253	68,159	—	586,962
Intercompany	118,382	164,356	4,604	3,270	2,585	6,599	– 299,796	—
Operating profit	34,594	13,871	6,908	– 722	13,097	3,651	– 13	71,386
Financial results	—	—	—	—	—	—	– 346	-346
Earnings before taxes	34,594	13,871	6,908	– 722	13,097	3,651	– 359	71,040
Segment assets	147,573	113,641	46,580	135,647	60,196	49,724	—	553,361
Thereof: Assets according to IFRS 8.33 (b)[1]	57,948	58,171	6,494	68,620	17,542	13,276	—	222,051
Segment liabilities	118,644	70,167	8,241	13,262	14,201	7,909	—	232,424
Capital expenditures:								
Property, plant and equipment[2]	5,039	8,245	1,792	7,236	1,771	1,967	—	26,050
Intangible assets	950	631	—	17	19	11	—	1,628
Depreciation[2]	– 5,144	– 5,078	– 666	– 994	– 1,262	– 959	—	– 14,103
Amortization	– 766	– 3,316	– 5	– 2,622	– 5	– 7	—	– 6,721

[1] Non-current assets other than financial instruments, deferred tax assets and prepaid pension cost
[2] Including investment properties

SEGMENT REPORTING AS AT DECEMBER 31, 2016

in K€	Germany	France	Europe (excl. G and F)	USA	Republic of Korea	Asia (excl. Korea)	Other / Consolidation	Group
Net sales	221,010	173,297	92,939	109,367	69,595	62,199	– 254,163	474,244
Third party	109,284	41,757	89,437	108,941	66,526	58,299	—	474,244
Intercompany	111,726	131,540	3,502	426	3,069	3,900	– 254,163	—
Operating profit	42,420	9,338	6,478	5,382	3,673	710	– 25	67,976
Financial results	—	—	—	—	—	—	– 361	– 361
Earnings before taxes	42,420	9,338	6,478	5,382	3,673	710	– 386	67,615
Segment assets	142,597	127,303	38,155	54,014	54,533	42,720	—	459,322
Thereof: Assets according to IFRS 8.33 (b)[1]	53,640	57,704	5,468	10,469	17,074	13,257	—	157,612
Segment liabilities	53,781	58,068	7,048	7,899	11,775	5,177	—	143,748
Capital expenditures:								
Property, plant and equipment[2]	6,646	5,312	1,788	231	575	1,571	—	16,123
Intangible assets	1,290	569	—	23	1	12	—	1,895
Depreciation[2]	– 4,590	– 5,366	– 543	– 368	– 1,298	– 991	—	– 13,156
Amortization	– 824	– 4,257	– 174	– 568	– 926	– 516	—	– 7,265

[1] Non-current assets other than financial instruments, deferred tax assets and prepaid pension cost
[2] Including investment properties

Aside from directly allocatable assets, the "Other" segment contains all assets that cannot be allocated on a reasonable basis (e.g. securities). Sales with one major customer (> 10 % of total sales) amounted to € 74.6 million in 2017 and were recorded in the Republic of Korea, USA and Asia (excl. Korea) segment. In 2016, these sales were less than 10 % of total sales.

SALES BY PRODUCT

in K€	**2017**	2016
Turbopumps	173,419	144,518
Instruments and Components	160,621	105,520
Backing Pumps	132,767	114,989
Service	107,800	99,698
Systems	12,355	9,519
Group	**586,962**	**474,244**

32. 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 at December 31, 2017, as in the year before, there were no more interest-sensitive financial assets. As a result of cash and cash equivalents as at December 31, 2017, an increase (decrease) in interest rate by 50 basis points would increase (decrease) earnings by K€ 487 (December 31, 2016: increase/decrease by K€ 550). As a result of financial liabilities shown as at December 31, 2017, an increase (decrease) in interest rate by 50 basis points would decrease (increase) earnings by K€ 302. With regard to financial liabilities there were no sensitivities to be disclosed for 2016, as there were no underlying amounts.

Credit risks

Due to the Company'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.

Liquidity risks

Due to the above-average level of cash and cash equivalents, no liquidity risks can be identified.

Foreign exchange rate risks

Approximately 56 % (2016: 53 %) of the Company's net sales are denominated in currencies other than the euro, primarily in U.S. dollars. The Company 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.

The derivatives that qualify for cash flow hedges under IAS 39 are recognized either as assets or liabilities at their fair values. Changes in the values of these cash flow hedges are recorded in equity under other equity components, net of applicable taxes. These amounts are subsequently reclassified as earnings (foreign exchange gains/losses) in the same period as the underlying transactions affect operating income. For the fiscal years ended December 31, 2017, and 2016, there were no amounts that were recognized in earnings due to hedge ineffectiveness. For the same periods, no gains or losses had to be reclassified to earnings from other equity components as a result of the discontinuance of cash flow hedges. If derivatives are kept, these derivatives are marked to market at period end using quoted forward rates. As at December 31, 2017, there were no contracts to be classified as cash flow hedges. Thus no amounts were recorded in equity for the period ended December 31, 2017. The negative fair values of the cash flow hedges recorded under other accounts payable for the period ended December 31, 2016, totaled K€ 588. Because the changes in fair value for cash flow hedges are recorded directly in equity, other equity components decreased by K€ 412, net of taxes of K€ 176, as at December 31, 2016. The derivatives classified as fair value hedges totaled K€ -6 as at December 31, 2017, were recorded through the income statement, and shown under other accounts payable (December 31, 2016: K€ 372). The Company does not engage in speculative hedging for investment purposes. As at December 31, 2017, and at December 31, 2016, no contracts held by the Company had a maturity date greater than one year.

As at December 31, 2017, the Company has entered into foreign currency forward contracts (South Korean Won) totaling € 1.6 million (December 31, 2016, U.S. dollar and South Korean Won: € 35.2 million). Pfeiffer Vacuum performs ongoing credit evaluations of the parties to these contracts and enters into contracts only with well-established financial institutions. Currency risks as defined by IFRS 7 arise as a result of financial instruments being denominated in a currency that is not the functional currency and being of a monetary nature; differences resulting from the translation of financial statements into the Group's presentation currency are not taken into consideration. Relevant risk variables are generally all non-functional currencies in which Pfeiffer Vacuum has entered into financial instruments. The vast majority of non-derivative monetary financial instruments within the Pfeiffer Vacuum Group are directly denominated in functional currency. In variance thereto, exchange rate risks arise from the securities available-for-sale, from a portion of trade accounts receivable, and from derivative financial instruments. If derivative financial instruments classify as cash flow hedges, changes in the exchange rate do not impact the income statement but are recorded directly in equity. Exchange rate-based changes in securities available-for-sale are also recorded directly in equity.

Had the euro, as at December 31, 2017, depreciated 10 %, net income would have been higher by K€ 2,473. A 10 % appreciation in the euro as at that balance sheet date would have decreased net income by K€ 1,992. Had the euro, as at December 31, 2016, depreciated 10 %, net income would have been higher by K€ 2,442 and total equity higher by K€ 645. A 10% appreciation in the euro as at December 31, 2016, would have decreased net income by K€ 2,143 and total equity decreased by K€ 863. In all cases, net income and equity were affected mostly by the sensitivity of the U.S. dollar which is predominantly material for the Consolidated Financial Statements.

Composition of financial instruments

The following tables show the composition of financial instruments by balance sheet line item and valuation category and fair value as well as net results by valuation category.

COMPOSITION OF FINANCIAL INSTRUMENTS AS AT DECEMBER 31, 2017

			Amounts Recognized According to IAS 39			
in K€	Category According to IAS 39	Net Book Value	Amortized Cost	Fair Value Recognized in Equity	Fair Value Through Profit and Loss	Fair Value
Assets						
Cash and cash equivalents	LaR	97,402	97,402	—	—	97,402
Trade accounts receivable	LaR	80,061	80,061	—	—	80,061
Other financial assets	LaR	3,840	3,840	—	—	3,840
Derivative financial instruments (hedges)	n/a	—	—	—	—	—
Liabilities						
Trade accounts payable	FLAC	40,814	40,814	—	—	40,814
Financial liabilities	FLAC	60,329	60,329	—	—	60,329
Derivative financial instruments (incl. hedges)	n/a	—	—	—	—	—
Derivative financial instruments (excl. hedges)	n/a	6	—	—	6	6
Totals by valuation categories:						
Loans and Receivables (LaR)		181,303	181,303	—	—	181,303
Held-to-Maturity Investments (HtM)		—	—	—	—	—
Financial Assets Available for Sale (AfS)		—	—	—	—	—
Financial Assets Held for Trading (FAHfT)		—	—	—	—	—
Financial Liabilities Measured at Amortized Cost (FLAC)		101,143	101,143	—	—	101,143
Financial Liabilities Held for Trading (FLHfT)		—	—	—	—	—

COMPOSITION OF FINANCIAL INSTRUMENTS AS AT DECEMBER 31, 2016

			Amounts Recognized According to IAS 39			
in K€	Category According to IAS 39	Net Book Value	Amortized Cost	Fair Value Recognized in Equity	Fair Value Through Profit and Loss	Fair Value
Assets						
Cash and cash equivalents	LaR	110,032	110,032	—	—	110,032
Trade accounts receivable	LaR	69,352	69,352	—	—	69,352
Other financial assets	LaR	4,508	4,508	—	—	4,508
Derivative financial instruments (hedges)	n/a	—	—	—	—	—
Liabilities						
Trade accounts payable	FLAC	30,896	30,896	—	—	30,896
Financial liabilities	FLAC	224	224	—	—	224
Derivative financial instruments (incl. hedges)	n/a	588	—	588	—	588
Derivative financial instruments (excl. hedges)	n/a	372	—	—	372	372
Totals by valuation categories:						
Loans and Receivables (LaR)		183,892	183,892	—	—	183,892
Held-to-Maturity Investments (HtM)		—	—	—	—	—
Financial Assets Available for Sale (AfS)		—	—	—	—	—
Financial Assets Held for Trading (FAHfT)		—	—	—	—	—
Financial Liabilities Measured at Amortized Cost (FLAC)		31,120	31,120	—	—	31,120
Financial Liabilities Held for Trading (FLHfT)		—	—	—	—	—

NET RESULTS BY VALUATION CATEGORY

		From Subsequent Valuation				Net Results	
in K€	From Interest/ Dividends	At Fair Value	Currency Translation	Impairment/ Reversal of Impairment	From Derecognition	**2017**	2016
Loans and Receivables (LaR)	347	—	– 2,967	– 700	313	– 3,007	542
Held-to-Maturity-Investments (HtM)	—	—	—	—	—	—	—
Financial Assets Available-for-Sale (AfS)	—	—	—	—	—	—	—
Financial Assets Held for Trading (FAHfT)	—	—	—	—	—	—	—
Financial Liabilities Measured at Amortized Cost (FLAC)	– 684	—	—	—	—	– 684	– 644
Financial Liabilities Held for Trading (FLHfT)	—	—	—	—	—	—	—

Determination of fair values of financial instruments

Determination of the fair value of derivative financial instruments (K€ – 6 as at December 31, 2017; K€ – 960 as at December 31, 2016) 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.

Determination of fair value of financial liabilities with variable interest rates is based on the assumption that agreed interest rates equal the rates customary in the market. Accordingly, the net book values correspond to their fair values.

Due to the underlying short terms fair values of trade accounts receivable and payable, other accounts receivable and payable and cash and cash equivalents equal their respective net book values.

Maturity of financial instruments

The following table shows the maturity of finance liabilities according to expiry date classes based on the maturity as of the balance sheet date. This analysis only relates to financial instruments and finance lease liabilities and includes undiscounted cash-flows. Reconciliation to the amounts in the balance sheet is thus basically not possible.

MATURITIES AS OF DEC. 31, 2017

in K€	up to 1 year	1 year up to 5 years	> 5 years	**Total**
Financial liabilities	5	60,000	—	60,005
Finance lease liabilities	76	281	—	357
Trade accounts payable	40,814	—	—	40,814

MATURITIES AS OF DEC. 31, 2016

in K€	up to 1 year	1 year up to 5 years	> 5 years	**Total**
Financial liabilities	224	—	—	224
Finance lease liabilities	—	—	—	—
Trade accounts payable	30,896	—	—	30,896

33. Management of financial risks

With an equity ratio of 58.0 % as at December 31, 2017, even after the partly externally funded acquisitions, Pfeiffer Vacuum still has an equity base that is high. Additionally, cash and cash equivalents totaled € 97.4 million as at December 31, 2017. Despite the financial liabilities taken out totaling € 60.2 million as of December 31, 2017 (December 31, 2016: –) the Group shows no indebtedness on a net basis. Again, the required liquidity range to successfully develop Pfeiffer Vacuum does exist.

Liquid assets are invested on a short-term conservative basis. Due to its high equity ratio and its good liquidity, Pfeiffer Vacuum will not depend upon interest-bearing liabilities to fund its capital expenditures for replacement and expansion or the dividend payment. Moreover, there are sufficient liquidity reserves to respond to changes in the economic situation.

34. Earnings per share

COMPUTATION OF EARNINGS PER SHARE

in K €	2017	2016
Net income (in K €)	53,848	47,032
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)	5.46	4.77

There were no transactions with ordinary shares or ordinary shares issued during the period between the balance sheet date of December 31, 2017, and the preparation of the Consolidated Financial Statements.

Additional Notes and Supplemental Information

35. Related party disclosures

Related party transactions predominantly consist of all transactions with those companies included in the Consolidated Financial Statements. The amounts of these transactions are detailed in the segment reporting in Note 31, 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. Pfeiffer Vacuum does not have holdings in any jointly controlled entities. Furthermore, no control exists with respect to special purpose entities.

Please refer to Notes 39 and 40 regarding the compensation paid to the members of the Management and Supervisory Board, 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 Company.

In 2017, the reimbursements from Pfeiffer Vacuum Trust e. V. amounted to € 2.4 million (2016: € 2.8 million). Contributions to Pfeiffer Vacuum Trust e. V. totaled € 3.0 million in 2017 and 2016.

The law firm of Menold Bezler Partnerschaft, Stuttgart, was contracted on the basis of usual and customary terms and conditions, to perform consulting projects. The expenses recorded in this context totaled € 0.1 million as at December 31, 2017 (2016: € 0.3 million). The Chairman of the Supervisory Board Dr. Michael Oltmanns, who resigned on October 25, 2017, is a partner in that firm.

As of December 31, 2017, Dr. Karl Busch, Ms. Ayhan Busch, Ms. Ayla Busch, Mr. Sami Busch, and Mr. Kaya Busch, all Germany, together had 38.96 % of the voting rights of the Company according to their own statements (December 31, 2016: 27.19 %). The shares are indirectly held through Pangea GmbH, Maulburg, Germany, and further independent legal entities belonging to the family-run Busch group. Based on unchanged arm's length conditions, goods in an aggregated purchasing value of a very low single digit million Euro amount were received from an operating company of the Busch group in the fiscal years 2017 and 2016.

Members of the Management and Supervisory Boards held an aggregate total of 3,846,765 shares of the Company as at December 31, 2017 (2016: 5,177). The change resulted from the shareholdings of Busch group which are also attributable to the new Chairwoman of the Supervisory Board Ayla Busch.

36. Events after the balance sheet date

The Management Board and Supervisory Boards of Pfeiffer Vacuum have decided on a new strategy supporting three year investment plan, providing for significantly increased annual investments, with a total volume of € 150 million.

Since the beginning of the 2018 fiscal year, there have not been any significant changes in the industry environment.

37. Personnel expenses

PERSONNEL EXPENSES

in K€	2017	2016
Wages and salaries	– 157,709	– 127,725
Social security, pension and other benefit cost	– 33,261	– 29,893
Thereof for pensions	– 16,395	– 14,494
Total	**– 190,970**	– 157,618

38. Number of employees

The number of employees was as follows as at December 31, 2017, and 2016:

NUMBER OF EMPLOYEES

	2017	2016
Annual average		
Male	2,330	1,981
Female	479	404
Total	**2,809**	**2,385**
Balance sheet date		
Male	2,440	2,016
Female	505	399
Total	**2,945**	**2,415**

The number of employees includes apprentices (December 31, 2017: 113, previous year: 86).

39. Management Board

Since November 27, 2017, the Management Board has consisted of Dr. Eric Taberlet (Chief Executive Officer), Diploma in Engineering, Nathalie Benedikt (Chief Financial Officer), Diploma in Business Administration, Dr. Ulrich von Hülsen, Diploma in Physics, and Dr. Matthias Wiemer, Diploma in Engineering.

On that date, the Supervisory Board appointed Dr. Taberlet as Chairman of the Management Board. On the same date, Nathalie Benedikt was appointed as the Chief Financial Officer. Parallel to the appointment of Dr. Taberlet and Mrs. Benedikt, the former Chairman of the Management Board, Mr. Manfred Bender, was dismissed for good cause.

Already effective August 1, 2017, the Supervisory Board has appointed Dr. Ulrich von Hülsen as an additional member of the Management Board.

Total short-term benefits recorded in the income statement for the aforesaid members of the Management Board for fiscal 2017 were € 1.4 million; thereof € 0.5 million short-term variable benefits (2016: € 1.7 million, and € 1.0 million, respectively). Short-term variable benefits recorded in the income statement in 2016 were paid out in 2017. Total pensions expenses in 2017 were again € 0.5 million. Pursuant to § 289a, Sub-Para. 2, Sentence 2, German Commercial Code ("HGB") or § 315a, Sub-Para. 2, Sentence 2, German Commercial Code ("HGB"), the compensation paid to the members of the Management Board is detailed in the compensation report (an element of MD & A). Additionally, the distribution of responsibilities within the Management Board is shown in MD&A. Benefits to former members of the Management Board (pensions) again amounted to € 0.4 million.

40. 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 Shareholders Meeting and two members elected by the Company's employees.

Upon resignation of former Supervisory Board members Dr. Michael Oltmanns and Dr. Wolfgang Lust on October 25, 2017, a judicial appointment of two Supervisory Board members was to take place upon request of major shareholder Pangea GmbH, Maulburg, effective October 26, 2017 until the next Annual General Meeting. The court, however, only granted the request to the extent that Ayla Busch, who also sought the position of Supervisory Board Chair, was appointed as a member of the Supervisory Board. The constituent meeting of the Supervisory Board thus took place with five Board members on October 26, 2017 and Ayla Busch was voted Chairwoman of the Supervisory Board. The vacant Board position is to be newly filled not later than at the Annual General Meeting in May 2018.

During the course of 2017, the Supervisory Board comprised the following persons:

- Ayla Busch (Chairwoman), since October 26, 2017
  Co-CEO Busch SE, Maulburg

- Dr. Michael Oltmanns (Chairman), until October 25, 2017
  Attorney at Law and Tax Advisor

- Götz Timmerbeil (Vice Chairman),
  Certified Public Accountant and Tax Advisor

- Filippo Th. Beck,
  Attorney at Swiss Law,

- Helmut Bernhardt (Employee Representative),
  Development Engineer

- Manfred Gath (Employee Representative),
  Chairman of the Employee Council

- Dr. Wolfgang Lust, until October 25, 2017
  Entrepreneur

The court appointment of Ms. Ayla Busch expires at the end of the next Annual General Meeting in May 2018.

Götz Timmerbeil exercised the following supervisory board mandates in 2017:

- VfL Handball Gummersbach GmbH, Gummersbach (chairman of the advisory board)
- Arena Gummersbach GmbH & Co. KG, Gummersbach (vice chairman)

Filippo Th. Beck exercised the following supervisory organ mandates in 2017:

- Candoria Group, Baar (Switzerland), member of supervisory organ of Candoria Holding AG, president of the supervisory organ of Progresa Holding AG and of Candoria Luxemburg Holding SA, Luxembourg
- Tenro Group, Bottmingen (Switzerland), member of the supervisory organ in various group companies
- Biamathea AG, Basel (Switzerland), member of supervisory organ
- Polyterra Liegenschaften AG in liquidation, Küsnacht (Switzerland), member of supervisory organ and liquidator
- IKFE Properties I AG, Zürich (Switzerland), president of supervisory organ
- Tainn-Immobilien AG, Bern (Switzerland), member of supervisory organ

Dr. Michael Oltmanns (Supervisory Board Member until October 25, 2017) exercised the following supervisory board mandates in 2017:

- Becker Mining Systems AG, Friedrichsthal (chairman),
- HPC AG, Mannheim (chairman),
- Kathrein SE, Rosenheim (chairman of the supervisory body)

Pursuant to § 289a, Sub-Para. 2, Sentence 2, German Commercial Code ("HGB") or § 315a, Sub-Para. 2, Sentence 2, German Commercial Code ("HGB"), the compensation paid to the members of the Supervisory Board is detailed in the compensation report (an element of MD & A).

41. Exempting provision under § 264 Sub-Para. 3, German Commercial Code ("HGB")

Pfeiffer Vacuum GmbH, Asslar, Germany, is included in the Consolidated Financial Statements of Pfeiffer Vacuum Technology AG. Accordingly, this company has made use of the exempting provision under § 264, Sub-Para. 3, German Commercial Code.

42. 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 2017 and 2016:

AUDIT FEES FOR THE AUDITOR OF THE CONSOLIDATED FINANCIAL STATEMENTS

in K€	**2017**	2016
Fees resulting from:		
Audit services	– 1,121	– 804
Other certification and consulting services	– 27	– 10
Tax advisory services	– 6	– 32
Other services	—	—
Total	**– 1,154**	– 846

The total amount included fees from affiliates of the auditor of the Consolidated Financial Statements of K€ 340 (2016: K€ 378).

43. German Corporate Governance Code/Declaration pursuant to § 161, German Stock Corporation Act ("AktG")

The recommendations and suggestions contained in the Code have been a firm element of our corporate governance for many years. Pursuant to § 161 of the German Stock Corporation Act, the Management and Supervisory Boards issued the statement of compliance for the year 2017 on October 26, 2017, amended January 24, 2018, and made it permanently available for shareholders and interested parties at the Company's homepage (group.pfeiffer-vacuum.com).

With the following two exceptions, this statement reflects compliance with the recommendations of the German Corporate Governance Code Government Commission as amended in February 2017:

- The German Corporate Governance Code recommends a determined limit to the duration of a member's participation in the Supervisory Board (item 5.4.1). The Supervisory Board does not regard the duration of a member's participation as an attribute which specifically qualifies a candidate for any position and therefore disregards this criterion when selecting the most suitable candidate.
- The German Corporate Governance Code recommends that variable remuneration components for members of the Management Board should in principle have a multi-year assessment basis which is essentially future-oriented (Paragraph 4.2.3). However, the regulation on variable remuneration, which is applied for Manfred Bender, Dr. Ulrich von Hülsen und Dr. Matthias Wiemer, does not provide for an "essentially future-oriented" assessment basis. This deviation is based on the fact that the provision of the Code was newly created until February 2017 and the contracts were not able to be amended in the meantime. However, an adjustment by the Supervisory Board will be made in the near future.

The full text of the Code is available at the following Internet address: www.corporate-governance-code.de.

44. Authorization for issuance of Consolidated Financial Statements

Through a resolution by the Management Board on March 16, 2018, the Consolidated Financial Statements were authorized for issuance.

Asslar, March 16, 2018

The Management Board

Dr. Eric Taberlet

Nathalie Benedikt

Dr. Matthias Wiemer

Dr. Ulrich von Hülsen

CERTIFICATION OF LEGAL REPRESENTATIVES

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.

Asslar, March 16, 2018

The Management Board

Dr. Eric Taberlet

Nathalie Benedikt

Dr. Matthias Wiemer

Dr. Ulrich von Hülsen

INDEPENDENT AUDITORS' REPORT

To Pfeiffer Vacuum Technology AG

Report on the audit of the consolidated financial statements and of the group management report

Opinions

We have audited the consolidated financial statements of Pfeiffer Vacuum Technology AG, Asslar, and its subsidiaries (the Group), which comprise the consolidated income statement and consolidated statement of comprehensive income for the fiscal year from 1 January to 31 December 2017, and the consolidated statement of financial position as at 31 December 2017, consolidated statement of changes in equity and consolidated statement of cash flows for the fiscal year from 1 January to 31 December 2017, 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 for the fiscal year from 1 January to 31 December 2017. In accordance with the German legal requirements, we have not audited the content of the consolidated corporate governance statement contained in the group management report or the declaration pursuant to Sec. 161 AktG ["Aktiengesetz": German Stock Corporation Act] contained therein.

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 Sec. 315e (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 2017, and of its financial performance for the fiscal year from 1 January to 31 December 2017, 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 opinion on the group management report does not cover the content of the consolidated corporate governance statement or the declaration pursuant to Sec. 161 AktG contained therein.

Pursuant to Sec. 322 (3) 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 opinions

We conducted our audit of the consolidated financial statements and of the group management report in accordance with Sec. 317 HGB and the EU Audit Regulation (No 537/2014, referred to subsequently as "EU Audit Regulation") and 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 Art. 10 (2) f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Art. 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 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 fiscal year from 1 January to 31 December 2017. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon; we do not provide a separate opinion on these matters.

Below, we describe what we consider to be the key audit matters:

1. Acquisition of Nor-Cal

Reasons why the matter was determined to be a key audit matter

Under an agreement dated 22 June 2017, 100% of the shares in Nor-Cal were acquired for a price of EUR 64.4m. From the acquisition date, Nor-Cal will be included as a subsidiary in the consolidated financial statements for the first time as at 31 December 2017. In connection with the purchase price allocation, goodwill of EUR 20.8m was recognized in the consolidated financial statements. The acquisition is significant for the consolidated financial statements from a quantitative perspective and is subject to a complex accounting framework. In addition, the determination of the fair values of the assets and liabilities and the purchase price allocation involve a number of significant assumptions and judgment by the executive directors, both of which are subject to high estimation uncertainty. Consequently, the accounting for the acquisition is considered a key audit matter. The management board of Pfeiffer Vacuum engaged a valuation expert for the required valuation and purchase price allocation.

Auditor's response

In our audit of the accounting for the acquisition, we assessed the purchase agreement and tested the payment of the purchase price to the seller. We also engaged valuation experts to examine the valuation model used to determine the fair values of the identifiable assets and liabilities assumed with regard to its methodology and arithmetical accuracy. This also includes comparing the budget used with the forecast that was the relevant basis for the decision to make the purchase. A further key area of our audit procedures was an examination of the completeness and valuation of the identified and acquired assets and liabilities assumed. Taking our knowledge of the business of Nor-Cal and the comments and plans of the executive directors into account, we obtained an understanding of the identification of the assets and liabilities assumed based on the report compiled by the valuation expert. We interviewed the executive directors on the significant assumptions used for determining the fair values and examined these by conducting analytical procedures using available industry and market information. Our examination of the assumptions used included in particular the derivation of the cost of capital and underlying discount rate.

In addition, we visited the most significant of the acquired production sites in order to satisfy ourselves of the existence and condition of the acquired non-current assets and inventories.

Our audit procedures did not lead to any reservations relating to the accounting for the acquisition of Nor-Cal.

Reference to related disclosures

For information on the accounting and valuation bases applied for the acquisition of Nor-Cal, see the disclosure in the notes to the consolidated financial statements contained in section "4. Accounting policies." The related information on judgments by the management board and sources of estimation uncertainty is also contained in section "4. Accounting policies" of the notes to the consolidated financial statements. See also the explanations on the basis of consolidation in section "5. Basis of consolidation" and section "6. Changes in the basis of consolidation" in the notes to the consolidated financial statements.

2. Valuation of goodwill

Reasons why the matter was determined to be a key audit matter

In the consolidated financial statements as at 31 December 2017, the Company reports goodwill of EUR 79.3m from acquisitions. Goodwill is tested for impairment as at 31 December each year. The impairment test carried out by the Company is based on assumptions, involves judgment and is subject to estimation uncertainty. Due to the materiality of the goodwill recognized and the complexity of the accounting framework to be applied, the assessment of the adequate valuation of goodwill is considered a key audit matter.

Auditor's response

During our audit, we engaged valuation experts to test the method used to perform the impairment test. We examined the cash flow projections underling the impairment test by assessing the underlying assumptions in terms of the reliability of past forecasts. The assumptions pertaining to future cash flows were also compared with the actual business performance (plausibility test). We also examined whether the forecasts were coherent overall and were correctly derived from the past and the current budget, and whether they are consistent with general industry-specific market expectations.

Since merely marginal changes in the discount rate can have a significant effect on the value of the relevant cash-generating units, we also assessed the parameters used to determine the discount rate and checked both the calculation method and arithmetic. We also performed sensitivity analyses in order to estimate a potential impairment risk associated with a possible change in one of the significant assumptions used in the valuation.

Our procedures did not lead to any reservations relating to the valuation of goodwill.

Reference to related disclosures

For information on the accounting and valuation bases applied for goodwill, see the disclosure in the notes to the consolidated financial statements contained in section "4. Accounting policies." The related information on judgments by the management board and sources of estimation uncertainty is also contained in section "4. Accounting policies" of the notes to the consolidated financial statements. See also the explanations in section "10. Intangible assets" for information on goodwill.

3. Recognition and measurement of actual and deferred taxes

Reasons why the matter was determined to be a key audit matter

The Pfeiffer Vacuum Group is a global group with a number of legally independent subsidiaries that are subject to the tax regulations of different jurisdictions. With regard to the assessment of taxes, the recognition and measurement of actual and deferred taxes are therefore particularly complex, resulting in an elevated risk of misstatement. Due in particular to the judgment required to assess tax matters and risks within the Group and to identify temporary differences as well as assess whether deferred tax assets resulting from temporary differences can be used in the future, the recognition and measurement of actual and deferred taxes is considered a key audit matter.

Auditor's response

We tested the plausibility of the calculation of significant actual tax items and checked both the method and arithmetic. We also evaluated in particular the correspondence with the taxation authorities and the results of the tax audits in order to assess the recognition and measurement of the income tax liabilities stated in the consolidated financial statements. We examined the completeness and accuracy of the identified temporary differences taking the local tax recognition and measurement differences into account and verified the calculation of the deferred tax assets and liabilities derived therefrom. We also examined the tax rates applicable to the various jurisdictions and assessed the plausibility of the deferred tax assets and liabilities based on an analysis of the prior-year figures and group tax rate. To examine the underlying value of deferred tax assets, we critically reviewed the related assumptions by the executive directors on the future taxable result in respect of which unused tax losses or tax credits can be used based on the significant tax forecasts. We assessed the information on actual and deferred taxes in the notes to the consolidated financial statements in accordance with the provisions of IAS 12.

Due to the particular complexity and expertise required, we engaged experts to assess the accurate accounting treatment and measurement of significant tax matters and the relevant disclosures in the notes to the consolidated financial statements for all of the Group's major subsidiaries. The experts involved in the audit through our international network reported to us on the findings from their audit procedures.

Our procedures did not lead to any reservations relating to the recognition and measurement of current and deferred taxes.

Reference to related disclosures

For information on the accounting and valuation bases applied for income taxes, see the disclosure in the notes to the consolidated financial statements contained in section "4. Accounting policies." The related information on judgments by the management board and sources of estimation uncertainty is also contained in section "4. Accounting policies" of the notes to the consolidated financial statements. See also the explanations in section "24. Income taxes" for information on actual and deferred taxes.

Other information

The supervisory board is responsible for the supervisory board's report pursuant to Sec. 171 (2) AktG. In all other respects, the executive directors are responsible for the other information. The other information comprises the consolidated corporate governance statement pursuant to Sec. 315d HGB included as a separate section in the group management report and the declaration pursuant to Sec. 161 AktG contained therein.

The other information also comprises the responsibility statement pursuant to Sec. 297 (2) Sentence 4 HGB included in the annual report, of which we obtained a version prior to issuing this auditor's report.

In addition, the other information comprises the following sections of the annual report that we expect to be provided to us after we have issued our auditor's report:

- Letter from the CEO
- Supervisory board's report pursuant to Sec. 171 (2) AktG
- Other sections of the annual report

Our 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 opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information

- is materially inconsistent with the consolidated financial statements, with the group management report or our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report with regard to the other information already provided to us.

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 Sec. 315e (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 or error.

In preparing the consolidated financial statements, the executive directors are responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, the executive directors are responsible for the preparation of the group management report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, the executive directors are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a group management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the group management report.

The supervisory board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the group management report.

Auditor's responsibilities for the audit of the consolidated financial statements and of the group management report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the group management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with 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 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 Sec. 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 misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this group management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also

- Identify and assess the risks of material misstatement of the consolidated financial statements and of the group management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our 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 control.

- 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 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 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 Sec. 315e (1) HGB.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express 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 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, the related safeguards.

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

Further information pursuant to Art. 10 of the EU Audit Regulation

We were elected as group auditor by the annual general meeting on 23 May 2017. We were engaged by the supervisory board on 21 June 2017. We have been the group auditor of Pfeiffer Vacuum Technology AG without interruption since fiscal year 2004.

We declare that the opinions expressed in this auditor's report are consistent with the additional report to the audit committee pursuant to Art. 11 of the EU Audit Regulation (long-form audit report).

German Public Auditor responsible for the engagement

The German Public Auditor responsible for the engagement is Jörg Bösser.

Eschborn/Frankfurt am Main, March 16, 2018

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft

Bösser	Schier
Wirtschaftsprüfer	Wirtschaftsprüfer
(German Public Auditor)	(German Public Auditor)

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CONSOLIDATED STATEMENTS OF INCOME

6-YEAR-OVERVIEW

in K €	2017	2016	2015	2014	2013	2012
Net sales	**586,962**	474,244	451,521	406,642	408,727	461,327
Cost of sales	– 376,945	– 293,769	– 276,010	– 263,259	–259,345	–294,182
Gross profit	**210,017**	180,475	175,511	143,383	149,382	167,145
Selling and marketing expenses	– 63,313	– 55,330	– 59,850	– 52,789	–51,343	–50,431
General and administrative expenses	– 48,976	– 35,733	– 35,838	– 29,853	–29,407	–30,118
Research and development expenses	– 27,763	– 26,282	– 25,479	– 23,936	–22,900	–22,317
Other operating income	10,345	10,818	13,297	10,176	8,268	10,515
Other operating expenses	– 8,924	– 5,972	– 6,882	– 2,237	–3,477	–6,317
Operating profit	**71,386**	67,976	60,759	44,744	50,523	68,477
Financial expenses	– 693	– 662	– 691	– 978	–1,217	–2,245
Financial income	347	301	383	507	644	822
Earnings before taxes	**71,040**	67,615	60,451	44,273	49,950	67,054
Income taxes	– 17,192	– 20,583	– 18,535	– 11,854	–15,135	–21,230
Net income	**53,848**	47,032	41,916	32,419	34,815	45,824
Earnings per share (in €)	**5.46**	4.77	4.25	3.29	3.53	4.64
Number of shares (weighted average)	9,867,659	9,867,659	9,867,659	9,867,659	9,867,659	9,867,659
Profitability figures						
Gross margin	35.8 %	38.1 %	38.9 %	35.3 %	36.5 %	36.2 %
Operation profit margin	12.2 %	14.3%	13.5 %	11.0 %	12.4 %	14.8 %
After-tax return on sales	9.2 %	9.9%	9.3 %	8.0 %	8.5 %	9.9 %
Sales by region						
Europe	222,547	188,860	187,003	183,181	182,070	190,753
Asia	220,304	174,604	151,511	130,323	143,863	171,483
The Americas	143,808	110,542	112,412	92,636	81,447	98,204
Rest of world	303	238	595	502	1,347	887
Sales by product						
Turbopumps	173,419	144,518	144,777	124,693	125,351	132,992
Instruments and components	160,621	105,520	98,777	96,899	101,151	110,863
Backing pumps	132,767	114,989	102,381	89,419	92,075	121,023
Service	107,800	99,698	96,730	84,967	81,653	78,217
Systems	12,355	9,519	8,856	10,664	8,497	18,232

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FINANCIAL CALENDAR 2018

Thu, May 3
Earnings Call on publication of Q1/2018 report

Wed, May 23
Annual General Meeting

Thu, Aug. 2
Earnings Call on publication of H1/2018 report

Tue, Oct. 16
Capital Market Day

Tue, Nov. 6
Earnings Call on publication of 9M/2018 report

IMPRINT

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This version of the Annual Report is a translation from the German version.
Only the German version is binding.

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FINANCIAL 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.

Corporate governance
The organizational structure and content of the way companies are managed and controlled.

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: Dividend ÷ Trading Price x 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: Shareholders' Equity ÷ Balance Sheet Total x 100

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: Gross Profit ÷ Net Sales x 100

Gross profit
The result of net sales less cost of sales.
Calculation: Net Sales – Cost of Sales

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

Operating profit (EBIT)
Operating profit (earnings) before interest and taxes.
Calculation: Net Income ± Financial Income / Expenses ± Income Taxes ± Gain / Loss from 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

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

Working capital
A liquidity parameter 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.
Absolute calculation:
Current Assets – Short-Term Borrowed Capital;
Relative calculation:
Current Assets ÷ Short-Term Borrowed Capital x 100

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