# 2017 ANNUAL REPORT FREUDENBERG GROUP



The Freudenberg Group stands for technology and innovation. Together with customers and research partners, Freudenberg employees develop leading-edge technologies, products, solutions and services. The innovative strength of Freudenberg has many facets. Having pioneered innovation throughout its history – from chrome tanning and the development of the Simmerring to sophisticated and high-tech medical devices – the company is an innovation

champion. For Freudenberg, striving together for solutions that support global sustainability is both motivation as well as the concept for success. It enables the Group to provide its customers with solutions and answers to tomorrow's questions, today. The company slogan "Innovating Together" embodies the Group's identity. This Annual Report brings you many examples of what makes Freudenberg so unique and different.

## **HIGHLIGHTS**

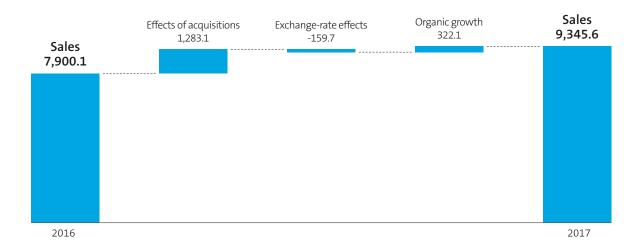
[€ million]	2013	2014	2015	2016	2017
Sales					
Germany	1,059	1,087	1,116	1,269	1,557
EU (excluding Germany)	1,553	1,657	1,700	2,094	2,434
Other European countries	327	334	308	314	441
North America	1,267	1,383	1,668	2,093	2,502
South/Central America	306	296	274	281	326
Asia	1,002	1,089	1,204	1,700	1,907
Africa/Australia	132	136	141	149	179
Total sales	5,646	5,982	6,411	7,900	9,346
Consolidated profit	399	478	521	1,087	700
Cash flow from operating activities	516	618	763	945	929
Cash flow from investing activities	-520	-339	-429	-1,510	-612
Balance sheet total	5,873	6,667	7,238	10,224	10,194
Equity	2,775	3,211	3,700	4,603	4,835
Equity ratio	47 %	48 %	51 %	45 %	47 %
Workforce (as at Dec. 31)	33,245	34,030	34,007	46,266	47,653
Workforce (annual average)	33,293	34,094	34,312	40,951	47,657

### SALES DEVELOPMENT

The first-time full-year consolidation of the companies acquired in 2016 had a major impact on the increase in sales. With sales at €9,345.6 million, the increase compared with the previous year was €1,445.5 million or 18.3 percent, representing a new record. Adjusted for the effects

of acquisitions and disinvestments, especially the full acquisition of the Vibracoustic Group, in the amount of €1,283.1 million, and taking into consideration exchange rate effects of €-159.7 million, sales rose by about 4 percent or €322.1 million compared with the previous year.

#### [€ million]



## **2017 FREUDENBERG ANNUAL REPORT**

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#### **COMPANY BOARDS**

#### SUPERVISORY BOARD



From left: Pott, Schildhauer, Towfigh, Kuhlich, Freudenberg, Wentzler, Kammüller, Kairisto, Purvis, Kurz, Thielen, Freudenberg-Beetz, Schücking

#### Martin Wentzler, Großhesselohe

Chairman of the Supervisory Board of Freudenberg SE Attorney

#### Professor Dr. Dieter Kurz, Lindau

Deputy Chairman of the Supervisory Board of Freudenberg SE Chairman of the Shareholder Council of the Carl Zeiss Foundation

#### Martin Freudenberg, Heidelberg

Managing Director of Jumag Dampferzeuger GmbH

## **Dr. Maria Freudenberg-Beetz, Weinheim** Biologist

## **Essimari Kairisto, Korschenbroich** MA Business Management

Dr. Mathias Kammüller, Ditzingen

Managing Director of TRUMPF GmbH + Co. KG

#### Maeva Kuhlich, Chichilianne, France

Manufacturing Integrator at Becton Dickinson France S.A.S.

#### Dr. Richard Pott, Leverkusen

Chairman of the Supervisory Board of Covestro AG

#### David M. Purvis, Kansas City, Missouri, USA

Former Executive Vice President and CTO at Solectron Corp.

#### Walter Schildhauer, Stuttgart

Managing Partner of speedwave GmbH

#### Dr. Christoph Schücking, Frankfurt am Main

Attorney and Notary Public

#### Mathias Thielen, Zürich, Switzerland

Managing Director of Credit Suisse AG

#### Professor Dr. Emanuel V. Towfigh, Bonn

Chair in Public Law, Empirical Legal Research and Law & Economics at EBS University Law School

as at December 31, 2017

#### **BOARD OF MANAGEMENT**



From left: Krieger, Sohi and Krauch

**Dr. Mohsen Sohi, Frankfurt am Main** Chief Executive Officer

**Dr. Tilman Krauch, Heidelberg** Member of the Board, CTO

**Dr. Ralf Krieger, St. Leon-Rot** Member of the Board, CFO

## **EXECUTIVE COUNCIL**

Members	Business Groups			
Claus Möhlenkamp (CEO)	Freudenberg Sealing Technologies			
Frank Müller (CEO)	Vibracoustic			
Bruce R. Olson (CEO)	Freudenberg Performance Materials			
Dr. Klaus Peter Meier (CEO)	Freudenberg Home and Cleaning Solutions			
Hanno D. Wentzler (CEO)	Freudenberg Chemical Specialities			
and the Board of Management				
Membership of the above-mentioned 5 CEOs in the Executive Council takes stronger account of the perspectives of the Business Groups with regard to overarching issues.				

## MANAGEMENT OF THE BUSINESS GROUPS

Management	Business Groups
Claus Möhlenkamp (CEO and Member of the Executive Council), Dr. Theodore Duclos (CTO), Ludger Neuwinger-Heimes (CFO), Dieter Schäfer (COO)	Freudenberg Sealing Technologies
Richard Schmidt (CEO), Craig Barnhart (CFO)	Freudenberg Oil & Gas Technologies
Dr. Andreas Raps (CEO), Michael Stomberg (COO), Dr. Sebastian Weiss (CFO)	EagleBurgmann
Dr. Max Gisbert Kley (CEO), Michael A. Hawkins (CFO)	Freudenberg Medical
Frank Müller (CEO and Member of the Executive Council), Dr. Jörg Böcking (CTO), Volker Christ (CFO)	Vibracoustic
Bruce R. Olson (CEO and Member of the Executive Council), Dr. Frank Heislitz (CTO), Richard Shaw (COO), Dr. René Wollert (CFO)	Freudenberg Performance Materials
Dr. Andreas Kreuter (CEO), Thomas Herr (CFO), Dr. Jörg Sievert (COO)	Freudenberg Filtration Technologies
Satoshi Kawamura (CEO), Yasuhiro Esaki (COO), Yukiyasu Izuta (CFO), Atsushi Shimoda (CTO)	Japan Vilene Company
Dr. Klaus Peter Meier (CEO and Member of the Executive Council), Dr. Arman Barimani (CTO), Karin Overbeck (CMO), Frank Reuther (CFO)	Freudenberg Home and Cleaning Solutions
Hanno D. Wentzler (CEO and Member of the Executive Council), Dr. Jörg Matthias Großmann (CFO)	Freudenberg Chemical Specialities
Horst Reichardt (CEO), Wolfgang Schneider (CFO)	Freudenberg IT

#### REPORT OF THE SUPERVISORY BOARD



Martin Wentzler (Chairman)

In 2017, the Board of Management and the Supervisory Board held regular and detailed discussions on the Group's progress and major individual business transactions based on verbal and written reports. The Board of Management and the Supervisory Board worked together to set business policy and updated it where necessary in joint deliberations. The Supervisory Board also advised the Board of Management in managing the company, while supervising and monitoring the conduct of business. The basis for the 2018 to 2020 Strategic Period was also discussed. The Chairman of the Supervisory Board held regular discussions with the members of the Board of Management on current business developments. Regular exchanges between the Chairman of the Supervisory Board, the Chairman of the Audit Committee and the Board of Management Member responsible for Finance were also held.

The Supervisory Board held 5 meetings in the year under review. These meetings included detailed market analyses, while also addressing sales and earnings developments, the financial situation and the Group's risk management. The agenda also included strategy issues, the portfolio structure, special projects and future-related topics.

One item of importance for the Supervisory Board was the establishment of the Innovation and Technology Committee, which met 3 times in the reporting year. The Supervisory Board participated in an intensive discussion concerning the impact of technological megatrends such as new mobility on the portfolio structure. The Supervisory Board also discussed the impact of the growing number of natural disasters on the Group, and approved an extension of the e² initiative to 2021.

The Supervisory Board advised on several acquisitions and their integration in the Freudenberg Group, including the acquisition of the seal manufacturer Metflex Holding Company Ltd, Blackburn, United Kingdom, the purchase of Colarôme Inc., Saint Hubert, Canada, a natural food ingredient specialist, and the acquisition of the Playtex Gloves business in the U.S. The Supervisory Board was also involved in the ongoing integration of Japan Vilene Company Ltd., Tokyo, Japan, and Gimi S.p.A., Monselice, Italy, acquired in 2016.

The Audit Committee met 4 times in the year under review. In Q1 2017, it advised closely on the annual financial statements and the consolidated financial statements as at December 31, 2016, and on the reports from the auditors about these financial statements. The second meeting focused on the auditor's report on recommendations for the internal control system. The report was discussed extensively with auditor representatives. Further Audit Committee issues in 2017 included the Group's risk management, the work of the Ethics Office, information security, the applicable principles of the German Corporate Governance Code, the implementation of the General Data Protection Regulation, changes in accounting standards, and a preview of the 2017 annual financial statements. Furthermore, the Audit Committee was regularly consulted on the ongoing Corporate Audit reports and reported back to each plenary meeting of the Supervisory Board on the issues addressed by the Audit Committee and the outcomes of its consultations.

The Personnel Committee met 4 times during the year under review and discussed executive development, the talent management process, succession planning in the key bodies of the Freudenberg Group, and remuneration systems.

The annual financial statements, the consolidated financial statements compiled pursuant to IFRS, the consolidated management report and the dependent company report of Freudenberg SE for 2017 were audited by Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft, Mannheim, Germany, and were approved without reservation. The members of the Supervisory Board were provided with the documentation for the annual financial statements and the audit reports in due time. The Supervisory Board approved the consolidated financial statements and the consolidated management report, and the annual financial statements of Freudenberg SE, and following examination, concurred with the auditor's findings. The annual financial statements of Freudenberg SE as at December 31, 2017 are therefore adopted.

The report on relations with affiliated companies (dependent company report) in accordance with Section 312 of the German Stock Corporation Act (AktG) submitted by the Board of Management of Freudenberg SE was audited by the auditors, who issued the following opinion:

"We render this report in accordance with the provisions of Section 313 AktG and conclude that the report of the Board of Management of Freudenberg SE, Weinheim, Germany, on relations with affiliated companies for the financial year from January 1 to December 31, 2017 attached as Appendix 1 complies with the provisions of Section 312 AktG. The Board of Management provided us with all the explanations and supporting documents requested. The dependent company report complies with the principles of a true and fair view. In accordance with Section 312 (3), 3rd sentence AktG, the concluding statement of the dependent company report has therefore been included in the management report (Section 289, German Commercial Code (HGB)).

Based on the results of our audit, the dependent company report does not give rise to any reserve-tions. We have therefore issued the following audit opinion:

Based on our audit and assessment, which were carried out in accordance with professional standards, we confirm that

- the factual statements made in the report are correct
- 2. the payments made by the company regarding legal transactions detailed in the report were not unreasonably high,
- 3. there are no circumstances in favor of a significantly different assessment than that made by the Board of Management regarding the measures listed in the report."

The Supervisory Board examined and approved the report on relations with affiliated companies (dependent company report) and took note of the auditor's report. The examination of the dependent company report by the Supervisory Board did not result in any objections to the concluding statement by the Board of Management in the dependent company report.

On June 24, 2017, Prof. Dr. Dieter Kurz, Dr. Richard Pott, and David Purvis were elected members of the Supervisory Board of Freudenberg SE for a term of 4 years.

The Supervisory Board thanks all employees, Business Group managing bodies and the Board of Management. Their great personal commitment made an important contribution to the Group's success in a demanding year.

Weinheim, March 23, 2018 For the Supervisory Board

Montin brentyles.

Martin Wentzler Chairman

#### **BOARD OF MANAGEMENT FOREWORD**

2017 was a successful year for the Freudenberg Group, both operationally and strategically. Adjusted for extraordinary effects from changes to the status of companies consolidated at equity in 2016, growth was seen in both sales and consolidated profit. Our strategic projects continued on schedule. All our Business Areas contributed to our successful year. Each helped us become more innovative and efficient.

We strive to be one of the most innovative broadly diversified and globally active technology companies. In 2017, we made great strides towards achieving this goal. The hard work and dedication of our almost 48,000 employees around the world were vital to our success.



Dr. Mohsen Sohi (CEO)

The figures published in this Annual Report were compiled solely under International Financial Reporting Standards (IFRS) reporting rules, whereby joint ventures were consolidated using the equity method. After taking full ownership of Vibracoustic GmbH in 2016 and increased shareholdings in VistaMed Ltd, Carrickon-Shannon, Ireland, in early 2017, there was no significant difference between the pro-rata and equity consolidation of joint ventures. This Annual Report thus does not include any figures consolidated pro-rata in deviation from previous years. There are no longer any differences between internal and external reports.

**Sales** totaled 9,345.6 million euros (previous year: 7,900.1 million euros) and were 18.3 percent above the previous year. The increase in sales is attributable to the first full consolidation of the companies acquired in 2016, and the market success of our innovative products.

Profit before income taxes was 883.1 million euros (previous year: 1,265.1 million euros). Consolidated profit was 700.1 million euros (previous year: 1,086.9 million euros). The difference in profit was attributable to an extraordinary effect resulting from the cessation of at-equity consolidation of the Vibracoustic Group and Japan Vilene Company in 2016. Adjusted for these effects, consolidated profits amounted to 503.4 million euros in the previous year. The sustained profitability stems from measures to improve both productivity and efficiency.

**Free cash flow** was 316.9 million euros (previous year: negative 565.3 million euros). The shift was primarily the result of reduced acquisition activity. The previous year figures included payments for the acquisition of the Vibracoustic Group and Japan Vilene Company.

The **equity ratio** of 47.4 percent (previous year: 45.0 percent) means Freudenberg has maintained a healthy equity base. Liquid funds at year-end totaled 998.8 million euros (previous year: 960.7 million euros).

The rating agency Moody's Deutschland GmbH, Frankfurt am Main, Germany rated Freudenberg SE, Weinheim, Germany "A3" as in the previous year, with a stable outlook. The Group thus maintained a so-called single-A rating.

2017 was the last year of the **2015 to 2017 Strategic Period**. We completed important projects vital to the Group's long-term success. In summary, we have become more efficient and innovative. This is the product of efforts to reduce our administrative costs while increasing research and development spending.

Since 2017, Freudenberg has also been using the equity method internally for joint ventures.

9,345.6

700.1

47,653

Sales € million

Consolidated profit € million

Freudenberg employees

Key strategic elements include our very long-term view of our portfolio and our search for areas of future growth. In 2016, our 30 young leaders examined a series of potential scenarios for the world in 2050 and identified business opportunities for Freudenberg. The project findings are now being used in our strategic plan, our research projects and our acquisition pipeline.

**Innovation** is vital to our corporate success. To expand our innovative strength, we have continued to advance Freudenberg's material, process and systems expertise with technology platforms. We are focusing on overarching technologies relevant to multiple Business Groups. 2 new platforms were implemented in 2017: "Digitalization" and "Hygiene". We now have 9 platforms to generate synergies and share knowledge among our Business Groups.

We invested more in innovation than ever before: 427.8 million euros (previous year: 335.1 million euros). We have steadily increased our investments in research and development over the past few years, further increasing Freudenberg's innovation strength. Freudenberg measures the research and development effectiveness by looking at the new product (those less than 4 years old) share relative to total sales. The share increased to 33 percent (previous year: 28.7 percent).

Operational Excellence at Freudenberg is the commitment to continuous improvement. In the reporting year, we worked hard to make our products, services and processes more efficient, better and safer. This is in keeping with Freudenberg's claim to be a technology group and is the basis for the company's market and technological leadership. The Lean and Six Sigma

methods are used to further optimize production processes. Our administrative departments have also become more efficient. Standardizing finance and accounting processes and generating economies of scale in purchasing helped lower administration costs. Lower administration costs allow us to invest more in innovation.

The Group's strategy envisions the selectively targeted strengthening of our portfolio through **acquisitions** in all the Business Groups. Our aim is to create a balanced portfolio of cyclical and anti-cyclical businesses with equal sales contributions from the Americas, Europe and Asia. We continued with successful bolt-on acquisitions as well as looking for opportunities to expand into complementary, new business fields. Examples of acquisitions were:

In January 2017, the Freudenberg Medical Business Group acquired further shares of VistaMed Ltd., Carrick-on-Shannon, Ireland. VistaMed produces high quality special catheters along with extruded tubes for the medical device industry, and the company has been working with Freudenberg since 2010 as a joint venture.

In July 2017 Freudenberg acquired Metflex Holding Company Ltd, Blackburn, United Kingdom. The company is a leading developer and manufacturer of membrane and customized sealing solutions for a wide variety of industrial applications.

In October 2017, Freudenberg bought natural ingredient specialist Colarôme Inc. of Saint Hubert, Quebec, Canada. The company holds patents for technologies used to produce a unique palette of natural colors.

Also in October 2017, Freudenberg bought the Playtex household glove business from Edgewell Personal Care Brands, LLC, St. Louis, Missouri, USA. Playtex is the leading US manufacturer of household gloves and has been active in the market for over 65 years under the Living and Handsayer brands.

In addition to the acquisitions, we also invested heavily in machines, equipment and facilities. At Freudenberg Performance Materials' US site in Macon, Georgia, a new production line with state-of-the-art technology for high quality fiberglass reinforced spunbonded nonwovens for use in the construction industry came on line. Freudenberg Chemical Specialities also inaugurated the expanded global research and development center at Chem-Trend in Howell, Michigan, USA. Japan Vilene Company opened a new production site in Aguascalientes, Mexico and a new medical equipment factory in Moryama City, Shiga Province, Japan. Vista-Med completed the expansion of its main production facility in Carrick-on-Shannon. In Weinheim, Germany the new training center opened for business near the end of the year under review.

In the pursuit of excellence, Freudenberg further expanded its **talent management**. The goal is to foster diversity and inclusion in the company, and attract and retain the best talent. We further strengthened our executive development efforts. The new "Operations Leadership Program" complements the "Strategic Leadership and Business Leadership Program", which has been an important part of our talent management since 2014. An employee survey in the reporting year provided further confirmation that we are on the right path. Employees had an above-average identification with our company relative to similar industries.

Success for Freudenberg means both financial success while also fulfilling our **responsibility for society**. These goals have been inseparably linked throughout Freudenberg's history. "Responsibility for society" at Freudenberg includes the 5 areas of Sustainability, HSE,

Corporate Citizenship, Compliance and Human Rights & Labor. All these topics are firmly anchored in Freudenberg's Values and Principles.

Freudenberg signed the **UN Global Compact** in 2014 as we feel the importance of communicating our actions to our customers, our neighbors, potential employees and institutions. We remain fully committed to implementing and advancing the 10 principles of the UN Global Compact.

Freudenberg used a project in 2016 to develop a Groupwide sustainability strategy. In the reporting year, the implementation of this strategy was transferred to the various Business Groups. Sustainability is now a systematic component of our strategic planning process. Sustainability has 2 dimensions in the company. The first dimension involves organizing processes and utilizing equipment to reduce and conserve resources (footprint). The second dimension is the numerous Freudenberg products and solutions that allow customers' production facilities to be more efficient and sustainable or make their products more resource efficient (handprint). The 6 core themes of materials, waste, energy, emissions, water and health are the most important factors in the Group's sustainability strategy. These 6 themes were then used to derive 3 Group-wide TOP themes: material efficiency, energy efficiency and emissions. Key Performance Indicators were defined for these 3 TOP themes.

Health, Safety and Environmental Protection (HSE) are vital to Freudenberg. Employee occupational safety is given top priority. In 2017, all company levels focused on occupational safety. We were thus able to reverse the negative trends of 2016 and nearly return once more to Freudenberg's high standards. The LDIFR (Lost Day Incident Frequency Rate measuring incidents generating one day of absence per million working hours) was 1.4 in the reporting year (previous year: 1.8). In 2018, we will redouble our occupational safety initiative as our employees' safety is vital to both me and my fellow Board Members.

Freudenberg's commitment to **Corporate Citizenship** extends beyond the value chain. Freudenberg started the international e² (education and environment) initiative in 2015 to strengthen this citizenship. The goal is to provide people with access to education and work and encourage environmental protection. In the reporting year, e² was extended for another year and the budget was increased by 2 million euros. The Freudenberg Group is currently providing a total of 14 million euros over a period of 7 years (until 2021). By the end of the year, approximately 60 projects received support.

Freudenberg also reorganized its aid initiative for refugees in 2017. By late 2016, the company was supporting more than 70 different initiatives in Germany and crisis regions. The next step is to create long-term opportunities for refugees, with traineeships being made available to them in the reporting year.

We can look back with pride at the progress we made over the past year. We have become more efficient, expanded our excellence and leveraged further Group potential.

#### **Outlook:**

The 2018-2020 Strategic Period will be key to the Freudenberg Group's future. Markets are changing ever faster; geopolitical uncertainty is growing and technological change is accelerating.

The automotive industry is facing a fundamental change driven by electromobility and self-driving vehicles. As a partner to our customers, we are well equipped for this change and are working hard on leading-edge innovations for all drive types including electric motors, hybrids, fuel cells and internal combustion engines.

Digitalization is charging ahead. We are closely examining the trend and what it means for our Group. At the DIALOG 2018 senior management conference, we will discuss various initiatives and derive measures to be implemented in the coming years.

For 2018, we forecast overall growth of 1.0 to 3.0 percent for the markets relevant to Freudenberg. Growth will depend heavily on economic and technological factors along with developments in current geopolitical flashpoints. We expect above-average growth in North America, China and India. We anticipate South America will continue its slow recovery. Europe should have stable growth.

In summary, we face many, complex market and technological challenges. They will bring risks and opportunities. We will remain agile and flexible, and adapt quickly to the changes in the marketplace.

#### Thanks:

Our employees' dedication and commitment will make our company even more successful in 2018. We rely on their entrepreneurial spirit, on our diversity, and our teamwork in the spirit of "Innovating Together". We thank everyone for their contributions.

We also want to thank our customers and business partners for their trust and excellent collaboration. Their success is our success.

Weinheim, March 23, 2018 For the Board of Management

Dr. Mohsen Sohi

CEO

## **LEADING TECHNOLOGY GROUP**

## As a leading technology group, excellence at Freudenberg means setting standards in technology, innovation and quality.

Freudenberg is a global technology company that strengthens customers and society through forward-looking innovations. Freudenberg employees collaborate with partners, customers and the world of science to develop leading-edge technologies, solutions and services.

Freudenberg employees are experts in their fields and use their expertise to develop excellent solutions for 30 market segments and thousands of applications – including seals, vibration technology components, nonwoven materials, filters, specialty chemicals, medical technology products, IT services and state-of-theart cleaning products.

Innovation is a constant throughout the company's history, which is filled with forward-looking inventions, such as chrome tanning, Simmering radial-shaft seals and sophisticated, high-tech medical products. Freudenberg Group products and services help customers prosper—often invisible but always indispensable and true to its market positioning, "Freudenberg is a values-based technology company that best serves its customers and society."

The collaborative search for environmental and societal sustainability solutions is both the reason for and foundation of the company's success. "Innovating Together" is put into practice at all the company's Business Groups and regional sites around the world.



# RESPONSIBILITY FOR SOCIETY (UN GLOBAL COMPACT PROGRESS REPORT)

As a family-owned, values-based technology group, success for Freudenberg is financial success as well as fulfilling the company's responsibility for society. The 2 goals have been inextricably linked since the company's founding.

- Freudenberg values and principles
- Areas relevant to "Responsibility"
- Processes and initiatives along the value chain (based on the UN Global Compact)
- Initiatives that extend beyond the value chain





At Freudenberg, "Responsibility for Society" covers 5 areas: Sustainability, Health, Safety and Environmental Protection (HSE), Corporate Citizenship, Compliance and Human Rights & Labor. All 5 areas are firmly anchored in Freudenberg's values and principles and closely linked to one another.

Values have always been important at Freudenberg when dealing with customers, business partners, neighbors and the environment. Freudenberg employees pledge to uphold an internal Code of Conduct, take part in Freudenberg's "We all take care" initiative to improve environmental protection, health and occupational safety and have developed innovative sustainable solutions to improve quality of life around the globe.

In 2014, the company signed the UN Global Compact because it felt the need to communicate its actions to customers, neighbors, potential employees and institutions. The principles behind the Global Compact are inscribed in the Freudenberg Group's Guiding Principles with different wording. The principles focus on 4 areas; human rights, labor standards, environmental protection and anti-corruption.

The following describes how Freudenberg put these principles into practice in the past year.

#### "We all take care" Group-wide initiative

Since launching in 2002, the internal "We all take care" initiative has encouraged employees around the world to make their work and workplace safer, healthier and more environmentally friendly; to get involved in social projects and help improve safety at the company.

We all take care!

The initiative stands for putting corporate values into practice—across country borders, hierarchies and Business Groups. Each employee is encouraged to bring forth ideas and suggestions. The Group-wide intranet, the Freudenberg Portal, provides employees with access to the details about successful projects, to speed up the improvement process. As part of the Corporate Health, Safety, Security, Environment meeting, upper management was integrated in the process and the heads from each of the Business Groups helped move things forward. Currently, more than 3,000 projects have been submitted.

Every year Freudenberg honors employees who have successfully taken part in the project with the "We all take care" award. First place in the year under review went to the "Near Miss Reporting App" from Freudenberg Sealing Technologies in North Shields, UK. Second place was shared by Freudenberg Performance Materials in Brazil and Argentina, with their "Emergency Stop Electronic Test" and EagleBurgmann in Johannesburg, South Africa with the "Vibratory Polishing of Service Mechanical Seals" project.



In the successful "We all take care" project in North Shields, UK, Freudenberg created a reporting system for near-miss accidents with an app.

A total of 12 projects from the Freudenberg world made it into the final round. Submissions were made for 179 projects.



"We all take care" makes people happy: Optimism among participants at the award ceremony in April 2017 in Weinheim, Germany.

#### Important figures about Responsibility for Society

This page includes a selection of important figures describing how the company takes Responsibility for Society. A detailed explanation of the figures can be found in the chapter describing the 5 areas of responsibility.

47,653
Freudenberg employees

88.9

(in tons/million euro sales)

CO, emissions

**179** 

"We all take care" projects

0.24

(in kWh/euro sales)

**Energy efficiency** 

1.4

LDIFR (Lost Day Incident Frequency Rate):

All workplace accidents with at least one day of work lost per one million hours worked

26.4

(million euros)

Investments in environmental protection and occupational safety



## **SUSTAINABILITY**

Freudenberg has always cared about sustainable products and processes. In 2016, Freudenberg developed a Group-wide sustainability strategy. The strategy was presented as a framework to all the Business Groups in the year under review. Sustainability was also made a systematic component of the strategic process.

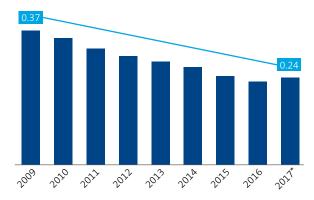
Sustainability is a part of Freudenberg's "Responsibility for Society" and has 2 dimensions. One dimension is process and equipment designs that conserve resources (Footprint). The second dimension is the numerous Freudenberg products and solutions that make customer's production more efficient and sustainable or allow products to be manufactured with greater resource efficiency (Handprint).

Freudenberg helps improve sustainability around the world by minimizing the company's footprint and maximizing its handprint. The Group has defined 6 core sustainability areas: materials, waste, energy, emissions, water and health.

The 6 core themes were used to derive the 3 Group-wide TOP themes of material efficiency, energy efficiency and emissions. Key Performance Indicators were defined to create greater transparency by measuring CO<sub>2</sub> emissions and making them comparable across the Group.

Freudenberg has been analyzing and measuring energy consumption across the Group since 2009. Energy efficiency has improved thanks to various measures and the introduction of an energy management system. The energy consumption per euro of sales has been reduced by over a third in just 8 years: from 0.37 to 0.24 kilowatt hours. Freudenberg remains committed to further improving energy efficiency.

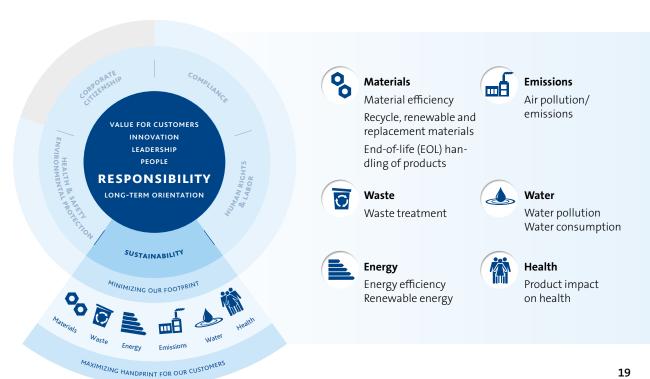
**ENERGY EFFICIENCY AT FREUDENBERG** (kilowatt hours per euro of sales)



\* Japan Vilene Company has been included in the energy consolidation since 2017.

Since 2017, **CO**<sub>2</sub> **emissions** across the Group have been tracked in accordance with the Greenhouse Gas Protocol. Freudenberg reports emissions in accordance with Scopes 1 and 2 after adjusting for direct and indirect energy consumption. Site-based calculations indicate a value of 88.9 tons of CO, per million euros in sales. Starting in 2018, a Group-wide Waste KPI will be compiled for the first time.

In the year under review, the strategic Sustainability Framework was linked directly to Business Group activities. Specific sustainability approaches and measures were identified to be carried out in each of the Business Groups and thus generate direct added value. Implementation is based on individual schedules and framework conditions within the Business Groups.



## A SELECTION OF SUCCESSFUL SUSTAINABILITY PROJECTS

The Freudenberg Group's constant quest for greater sustainability drives innovation. At the same time, innovation results in more sustainable processes and products. Innovation and sustainability are closely linked and work together. Innovations make an important contribution to sustainability and have a positive impact on the company's footprint and handprint.

Selected **footprint examples** are listed on this twopage spread and **handprint examples** can be found on the following 2 pages.

#### **Footprint**

The search for sustainable production processes is an important part of Freudenberg's DNA and is firmly anchored in the values-based technology group. Topics such as energy and material efficiency, the sustainable use of resources and the reduction of waste are important in minimizing the company's footprint. Continuous improvements in these areas help Freudenberg take responsibility for society.



#### Materials

Material efficiency Recycled, renewable and replacement materials End-of-Life (EOL) handling of products



#### **Emissions**

Air pollution/ emissions



#### Waste

Waste treatment



#### Water

Water pollution Water consumption



#### Energy

Energy efficiency Renewable Energy



#### Health

Impact of products on health

#### **WASTE**



## Innovative manufacturing processes minimize production waste

Vibracoustic is committed both locally and globally to sustainability. Innovative production processes make it possible for the company to continuously improve material efficiency and minimize or avoid production waste. The introduction of cold-channel injection molding in the global production network has already lowered rubber waste enormously. Vibracoustic is now gradually implementing valve gate technology, which will virtually eliminate sprue waste from the manufacture of rubber parts.



Thanks to innovative manufacturing processes, Vibracoustic is continuously improving material efficiency or avoiding production scrap.

#### **FMISSIONS AND MATERIALS**





#### The lubricant of the future

Klüber Lubrication successfully developed homogenous lubricants with functional water components: Hydro Lubricants. Water has clear functional benefits. It is available around the world, non-toxic and non-flammable. The solution also has a handprint aspect. But water had limitations as a lubricant. Now, water can be used as a functional component opening completely new applications. Companies from numerous industries can now enjoy various sustainability and performance benefits.



Water as a functional component of lubricants has clear advantages. It is neither toxic nor flammable.

#### MATERIALS AND WASTE





#### New products from used PET bottles

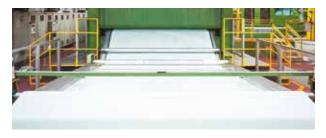
Freudenberg Performance Materials recycles 2.5 billion bottles at their production facilities every year. The recycled polyester is then used in nonwoven materials for roof seals as well as acoustic and thermal insulation. The materials are produced with 100% recycled PET and have the same quality as products made from new materials. Labels and caps are also recycled and find a new life as modifiers in bitumen. Recycling saves natural resources and energy.

#### WATER



#### **Recycling hot water**

The Freudenberg Home and Cleaning Solutions factory in Monselice, Italy has a block heating plant, where hot water is used to heat the production hall in winter. Hot air from the ventilation system is not merely discharged into the environment but is used to dry wet components and to heat paint-drying furnaces. The approach is both environmentally friendly and helps cut costs.



Recycled polyester is used to manufacture nonwovens used in roof seals as well as acoustic and thermal insulation.



The production at the Freudenberg site in Monselice, Italy is an example of sustainable production.

#### **WASTE**



#### Reducing production waste

At many Freudenberg sites, employees have launched initiatives to improve their ecological balance sheet, including the recycling of waste. One example is the Zero Landfill project. The goal is to recycle and reduce waste. The site in Colmar, France, was able to reduce production waste by 20 percent year on year.

#### **FNFRGY AND FMISSIONS**





#### **Reducing energy consumption**

Freudenberg puts sustainability into practice every day. The nonwoven production site in Parets del Vallés, Spain, managed to reduce energy consumption by almost 20 percent within a few years. The energy reductions involved countless small changes and just a few major ones. Some steps included insulating the pipes, heating the production hall with an energy-efficient infrared system and replacing outdated steam-generation machinery.



The sustainable use of resources and the reduction of waste play an important role at the nonwoven site in Colmar.



Energy and material efficiency is very important at all Freudenberg sites.

#### OTHER EXAMPLES OF SUCCESS-**FUL SUSTAINABILITY PROJECTS**

Selected **handprint examples** are listed on this twopage spread, you can find selected examples on the previous 2 pages.

#### **EMISSIONS AND HEALTH**





#### Water-based mold-separating agent

Chem-Trend offers water-based, non-flammable process aids, which have few or no volatile organic compounds. Freudenberg products help meet ever tougher environmental protection and occupational safety standards, which make factories safer and less polluting, as customers are no longer forced to use corrosive agents. Cleaning the molds is also more cost efficient.



Products from Freudenberg company Chem-Trend help meet ever stricter environmental and occupational safety requirements.

#### Handprint

Responsibility for society means that Freudenberg also helps customers become more sustainable. For example, innovative products and services can help make customers more efficient. Expanding Freudenberg's handprint also has a positive impact on customers' quality of life while making an improved contribution to sustainability in various areas outside of Freudenberg.



#### Materials

Material efficiency Recycled, renewable and replacement materials End-of-life (EOL) handling of products



#### **Emissions**

Air pollution/ emissions



#### Waste

Waste treatment



#### Water

Water pollution Water consumption



#### Energy

Energy efficiency Renewable energy



#### Health

Product impact on health

#### **ENERGY, MATERIALS AND WASTE**







#### Reduce material usage with special lubricants

Specialty lubricants from Klüber Lubrication for high-stress roller bearings and slide bearings in the wind-power industry help reduce wind-turbine downtimes and significantly increase productivity. Klüber products also minimize bearing wear to increase their operational life. Operator repair and replacement costs and the costs for the disposal of spent lubricant are lowered, reducing material usage and waste.



 $A\,Kl\"{u}ber\,Lubrication\,R\&D\,employee\,at\,work\,in\,the\,lubrication\,specialist's\,label{eq:lubrication}$ 

#### **ENERGY AND EMISSIONS**





#### Seals for greater safety in oil exploration

EagleBurgmann — a joint venture of Freudenberg and Japan's EKK Group — supplies mechanical seals and supply systems for pumps and compressors to state-of-the-art oil platforms off the coast of Norway. Eagle-Burgmann and Freudenberg Oil & Gas Technologies have decades of experience in the oil industry and thus valuable technological expertise. Freudenberg products provide customers with greater process reliability, availability and site efficiency.



After production, the metal housing in the mechanical seals are tested using 3D monitoring.

#### **EMISSIONS**



#### Reduced friction for lower CO,

Levitas seals from Freudenberg Sealing Technologies can be installed in all types of automatic transmissions. The special design of the seals reduces friction so much that merely replacing conventional seals in an automatic transmission can lower  $\mathrm{CO}_2$  emissions in a vehicle by 0.8 grams per kilometer. If one million new vehicles were equipped with Levitas seals, the cumulative emissions would be reduced by 192,000 tons over the life of a vehicle.



When developing new seals, Freudenberg Sealing Technologies experts from various areas work together.

#### WATER



#### Drinking water from waste water

Viledon Water Solutions use Aquabio technology from Freudenberg Filtration Technologies to treat waste water from the food processing and beverage industries. The membranes reliably filter out dirt particles and bacteria. Reverse osmosis and supplemental disinfection help transform up to 70 percent of the waste water into drinking water. The filters sink energy consumption and operating costs for the customer, while reducing CO<sub>2</sub> emissions.

#### **HEALTH**



#### For the good of the patient

Coated balloon catheters from Freudenberg Medical deliver medication precisely where the body needs it. The unique configuration and innovative coating process create a longer-lasting and improved effect — with just one of third of the required medication, helping reduce side effects in patients, protect the environment by reducing toxic waste and saving the healthcare system money.



Turning waste water into clean drinking water – Freudenberg solutions make it efficient and reliable.



An innovative material coating process for balloon catheters at Freudenberg Medical helps deliver life-saving medication to customers.



## OCCUPATIONAL HEALTH AND SAFETY AND ENVIRONMENTAL PROTECTION

Freudenberg's Health, Safety and Environment (HSE) Guideline contains the HSE principles and defines the stipulations laid down in the Freudenberg Group's values and principles governing HSE. The primary goals are the prevention of all accidents, preventive health protection, and the reduction of the negative impact of Freudenberg's business activities on the environment.

Freudenberg is committed to employees' wellbeing and their personal development. Internal regulations stipulate that occupational safety and health are supported and practiced at all levels within Freudenberg. Health protection, occupational safety and process safety are all part of the daily routine at Freudenberg.

The approach has allowed the Freudenberg Group to reduce accident numbers to a low level relative to industry benchmarks. Existing measures are strengthened and enhanced with new targeted approaches for continuous improvement. Success in occupational safety serves as a benchmark for other areas, particularly environmental protection and health protection where Freudenberg hopes to see the same advances. This is how preventive health management projects are increasingly pursued in the company.

An HSE Week is held once a year and all sites within the Freudenberg Group are called on to implement HSE campaigns. In the reporting year, employees received occupational safety training courses and lessons on workplace ergonomics and continuous participation was thus encouraged.

Internal and external audits as well as HSE assessments at all Freudenberg Group sites are used to assess measures to improve environmental protection, occupational health and safety or fire protection. One goal is improving operational procedures to prevent harm to individuals and thus work outages and potential supply disruptions. The audit findings are systematically evaluated and the remediation measures are then implemented across all Business Groups.

#### Management systems

The implementation of management systems for occupational health and safety (OHSAS 18001) and environmental protection (ISO 14001 or EMAS) continued in 2017.

Numerous sites launched DIN EN ISO 50001-compliant management systems to reduce energy consumption and limit the company's environmental impact. Freudenberg Sealing Technologies, Freudenberg Performance Materials and Freudenberg Home and Cleaning Solutions have introduced the management systems at their German production sites. All relevant European sites carried out energy audits in compliance with DIN EN 16247-1 to identify potential savings.

#### Investments

The share of direct investments in environmental protection, occupational health and safety as part of overall investment in tangible assets, intangible assets and investment properties was **5.3** percent (previous year: 5.1 percent).

#### **Environmental protection**

Freudenberg believes environmental protection is an important responsibility and makes sure the company's activity is as environmentally friendly as possible.

The goal is to continuously reduce the negative impact along the entire value chain, by using resources more efficiently, reducing emissions, saving energy, water and other materials while improving transport processes. Freudenberg also includes ecological factors when redesigning and modernizing buildings.



The Freudenberg site Görwihl-Oberwihl needed a third less energy after the extensive modernization work over the past 3 years.

Freudenberg uses many raw materials and processes in production. The materials and processes vary in their impact on occupational safety and the environment. Freudenberg has many ways to limit these risks. The goal is to continuously reduce the physical hazards on site and their impact on the environment.

Freudenberg actively searches for alternatives to hazardous materials or those with a pending REACh (European Regulation on Registration, Evaluation and Restriction of Chemicals) classification prior to the passage of any regulations. Assessments are carried out to prevent any negative impact on production from restrictions placed on a material. Many products are developed in phased processes to make sure a new product's environmental impact is less than its predecessor.

12 environmental incidents (previous year: 10 incidents) occurred in 2017. Small fires occurred at the Freudenberg Home and Cleaning Solutions site in Augsburg, Germany, at Freudenberg NOK Sealing Technologies in Cleveland, Ohio, US, at Vibracoustic in Guarulhos, Brazil and at Freudenberg Sealing Technologies in Schwalmstadt, Germany. A Freudenberg Filtration Technologies site in Potvorice, Slovakia was hit by lightning and suffered a small fire in a substation, causing a five-hour blackout. In November, fire broke out at Freudenberg Performance Materials in Durham, North Carolina, US.

#### Resource consumption

In 2017, Freudenberg used **2.3** million megawatt hours of energy (previous year: 1.8 million megawatt hours). Energy consumption came from primarily from the following sources:

- Third-party energy supplies (power, steam and district heat generated outside Freudenberg; 1.51 million megawatt hours)
- Gas (0.71million megawatt hours)
- Fuel oil (0.03 million megawatt hours)

The **2.3** million megawatt hours generated costs totaling **154** million euros. Energy costs took up **1.6** percent of overall revenue (previous year: 1.7 percent).

#### **Contaminated sites**

The provisions for contaminated sites fell by 9.8 percent relative to the previous year.

The reasons for the decline include the successful completion of soil remediation at the Weinheim Industrial Park as part of usage changes. Modernization planning was completed for the wastewater treatment plant and the former Freudenberg Sealing Technology facilities in Pinerolo, Italy is in the pre-planning phase. The old Klüber Lubrication site in São Paulo, Brazil is also in the discovery phase. In these cases, the company is coordinating further action with the local authorities.

New provisions for remediation measures were not needed, and existing provisions have been reduced.

#### Preventive health care

In 2017, the Group expanded preventive health care management and implemented the health principles using various programs and initiatives. The individual Business Groups compiled key health indicators - such as the number of workdays lost to illness - to see where improvement potential could be found and put measures in place. The transparency led to a series of improvement projects, such as the initiative at Freudenberg Home and Cleaning Solutions in Salo, Finland. A holistic occupational health management system is now in place. Some of the system's measures include courses on nutrition, movement and physical fitness, improvements to ergonomics and the introduction of exercise breaks. A real impact can be felt in the drop in the number of working days lost, while health and wellbeing have become firmly anchored at the company.



Stretching several times a day helps prevent muscle and skeletal disorders for Freudenberg employees in Salo, Finland.

In May 2017, the Freudenberg Health Studio opened in the Weinheim Industrial Park. Working with operator TSG Weinheim and the health insurer, BKK Freudenberg, employees can use exercise equipment and take courses at discounted prices. The studio helps make exercise convenient and easy to include in employee routines.

#### **Occupational safety**

Freudenberg's internal reporting started using the LDIFR (Lost Day Incident Frequency Rate) benchmark based on the pro-rata consolidation of joint ventures in 2015. The figure is a non-financial key performance indicator at the Freudenberg Group. All workplace accidents with at least one day's absence are measured per 1 million work hours.

The total number of incidents resulting in more than one day's absence from work in the reporting year was **140** (previous year: 143). The Group had **6** serious accidents (previous year: 10) in 2017, **one of which was fatal**. At Freudenberg Filtration Technologies in Changchun, China, an employee was injured during the commissioning of a machine and died from his injuries on the way to the hospital.

Occupational safety focuses on measures to raise employee safety awareness. The numerous projects, which were part of the "We all take care" initiative, provide some examples of safety awareness projects. At Freudenberg Sealing Technologies in North Shields, United Kingdom, an app was created to report nearmiss accidents. Tablet computers are placed at Near Miss Stations throughout the site and employees can use them to report near-miss accidents or dangerous situations. At EagleBurgmann in Johannesburg, South Africa, a new cleaning process for mechanical seals was introduced to cut costs while reducing health risks and environmental pollution. Logistics at Freudenberg Filtration Technologies in Weinheim is taking steps to protect pedestrians from collisions with forklifts. A collision warning system is triggered when forklifts and pedestrians come within 10 meters of each other.



At Freudenberg, health and safety protections are encouraged and practiced at all levels.



## **CORPORATE CITIZENSHIP**

Corporate Citizenship has always been integral to Freudenberg and practiced both inside and outside the company. Freudenberg strives to be a good corporate citizen and good neighbor in all the countries, states and communities the company calls home. Corporate Citizenship at Freudenberg goes beyond the value chain — as seen in the hundreds of projects near the company's sites.

Freudenberg created the e² (education and environment) initiative in 2015 to strengthen the company's Corporate Citizenship. e² helps people access education and work and encourages environmental protection. The initiative supports projects that meet a list of criteria. Freudenberg is currently donating a total of 14 million euros to e² over a period of 7 years.

A broad range of aid projects were financed in the reporting year. Projects included small campaigns and educational programs in communities near Freudenberg's sites. One is in Tyler, Texas, US, where the Promise Academy Classroom helps bring equal education for all. In Jacareí, Brazil, the Guri na Roça charity helps young people find employment. A project in Valence, France, helps reduce biodegradable waste at 10 schools.



Socially disadvantaged children in Brazil also benefit from Freudenberg's e<sup>2</sup> program.

Freudenberg's refugee aid initiative is another example of the company getting involved where it is needed. The Freudenberg Group donated 2.6 million euros as part of a company-wide initiative to help integrate refugees. By late 2016, the company had helped over 70 different initiatives in Germany and crisis-plagued regions that support children and young people, and teach language skills.

The next step is to focus on long-term prospects for refugees by offering traineeships. Over the next 3 years, 12 to 15 refugees can start a dual traineeship. They are financed with donations, meaning refugee traineeships can run parallel to normal ones. Weinheim has the infrastructure for a successful training program and will kick things off. In September 2017, 5 refugees started their technical traineeships. In the coming years, new traineeships will be created at all the larger Freudenberg sites in Germany. Weinheim's experience will be used to steadily expand the trainee program.



Freudenberg's goal is open long-term prospects for refugees by providing thorough professional training.

In 2017, numerous employees from companies, sites and Group companies volunteered in small initiatives and complex projects. The initiatives are all tailored to local needs, with Freudenberg employees helping locally.

Freudenberg North America organized a 4th Service Day, where employees from more than 60 sites in Canada, the US and Mexico volunteered at schools, communes and farms.

Here are some examples of the local projects' long-term focus: Since 2009, Freudenberg has maintained a non-profit training center in Nagapattinam, Tamil Nadu, India, south of Chennai, where youths can qualify as electricians, welders, fitters, plumbers, engine mechanics and machine technicians in dual training programs. The Nagapattinam region is poor, mainly with farmers and fisherman, and suffered immensely from the 2004 Tsunami.

In May 2008, an earthquake devastated the village of Haijin in Szechuan Province, China. Freudenberg helped rebuild the elementary school, which reopened in 2009. The building has enough space to teach 300 students. Every year, Freudenberg employees visit the elementary school and organize various activities like the summer school project, provide tutoring and organize a Christmas party.



Allowing children in the rural area to obtain an education and supporting disadvantaged children are the primary goals of the Love Beyond Donation campaign at the Ke-De-Bao elementary school in Haijin, China.

The TANNER youth exchange program started in 1999 to help young people around the world expand their horizons and learn life lessons. Over the years, more than 1,100 youths have traveled the world as part of the TANNER program. The young people, their parents and hosts all feel part of the global Freudenberg community.

The TANNER youth exchange program allows young people to look beyond their own nose and learn life lessons.

In 2017, about 120 participants from 40 non-profit initiatives and charitable associations in the Rhine-Neckar region came to the sixth annual networking meeting at the Freudenberg Group in Weinheim, Germany, to develop ideas for new projects and discuss ideas for volunteering.



Freudenberg Group created the Netzwerktreffen to give the many volunteers in the Rhine-Neckar region an opportunity to share their experiences.

Freudenberg uses the meeting to help local volunteer organizations network. The Group also supports social projects at the headquarters in Weinheim as part of the "Wir tun was" initiative.

The Freudenberg Group is also an enactus partner: approximately 20 senior managers from Germany, the US and China are on the organization's board. Many enactus students write doctorates or complete internships. Freudenberg is also an enactus sponsor.



Freudenberg is a partner to the enactus student organization.

Since 1984, the Freudenberg Foundation has been helping bring about real long-term change by promoting inclusion, education and democracy. As a non-profit company, the Foundation is a partner in Freudenberg & Co. KG. Most of the projects focus on children and young people and their social, lingual, educational and vocational integration.







### **COMPLIANCE**

As early as 1887, founder Carl Johann Freudenberg drafted his first business principles to help his sons take over the business. The document is the basis for Freudenberg's 10 Business Principles for partners and employees. One principle stipulates success must come from performance. Freudenberg shall not be involved in illegal or unethical business practices.

#### **Business Principles and Guiding Principles**

Freudenberg's Business Principles were then used to create Guiding Principles, which apply to all interactions with employees, business partners, stakeholders and third parties.



Freudenberg is a family-owned, values-based technology group and holds personal conduct to high standards.

The Guiding Principles clearly state that Freudenberg is a family-owned, globally-oriented technology group that places high standards on personal conduct and where fairness and integrity are vital in dealings with business partners and the public at large. All new employees are instructed in the Business Principles and Guiding Principles, which are published on the Freudenberg home page (see also Human Rights & Labor Chapter). The principles are part of a deep-seated corporate culture. They create a framework for a trusting and optimistic workplace, supporting teamwork, innovation and customer orientation, and with them the company's long-term success.



The Business Principles and Guiding Principles for the Group are presented to all new employees.

#### **Compliance structure**

The Business Groups at Freudenberg have general autonomy when making business decisions. The Business Groups are generally responsible for compliance with laws and regulations.

At the holding level, and thus the duty of the Freudenberg Compliance Management Council, the focus is on the most important compliance issues relevant to the Group and those with international implications and which may especially pose a threat to Freudenberg's reputation.

#### **Code of Conduct**

The Code of Conduct is derived from the Business Principles and Guiding Principles, with a close focus on Responsibility. The Code of Conduct is the same everywhere around the world and is designed to ensure that respect for the law and proper conduct remain a connerstone of how Freudenberg conducts business.



Freudenberg provides employees with regular compliance training, both in personal discussions and with computer learning.

The Code of Conduct is available to all employees in 26 languages around the world, both as a printed brochure or in digital form. The Code is communicated and explained to all employees. The Business Groups have a wide-range of media available for communication, including presentation templates, FAQs and e-learning tools. The consistent and continuous communication clearly indicates the Code of Conduct is binding even for new employees (e.g. as an annex to their employment agreement) and the need for compliance with the Code.

The Freudenberg Management Council took further steps to make sure the Code of Conduct remains a cornerstone of the company's corporate culture and expands assistance and support on offer to employees and their supervisors. Such steps include regular discussions with HR staff, active cooperation with the Ethics Offices and their members as well as reg-

ular training and educational programs covering core compliance subjects such as competition and anti-trust law and fighting corruption in the regions.

The company held several presentations on fighting corruption in 2017 and provided employees with personal training courses, which used case studies and other examples. The e-learning sessions are available on several individual subjects within the Learning Management System and provide Business Groups with a tool for raising employee awareness in a specific job and area of responsibility.

The e-learning tool is standardized around the world and is ideal for raising employee awareness of Freudenberg's Code of Conduct. The LMS also has participation monitoring and performance evaluation and invites employees to provide feedback.

#### **Ethics Offices**

The Ethics Offices are an important part of Freudenberg's Compliance Management System. The offices are a contact for any employees who – for whatever reason – feel they cannot turn to their superiors, HR team or their union representatives. The opportunity to confidentially and proactively report compliance violations or impending violations in a confidential environment helps create a culture of trust and protects Freudenberg's internal values and principles.

The first global Ethics Office meeting was held this year. Representatives from the Corporate Ethics Office and the Regional Ethics Offices discussed how they deal with various ethics violations, specifically in different cultures. An information campaign was launched for all regions, to make a detailed presentation of the Ethics Offices, in addition to the campaign for the Code of Conduct.

#### Risk management and Corporate Audit

Anti-corruption measures and evaluation of their effectiveness also remained a component of risk management and the work of the Corporate Audit team. The goal of the department is to uncover corrupt deals, evaluate the effectiveness of counter measures and improve as needed.

Internal audits examine compliance with the standards. Employees receive anti-corruption training in classroom sessions and e-learning programs. The Compliance Council, Corporate Audit and the Ethics Office work together to assess any incidents that may arise.



Participants in the first global Ethics Office Meeting



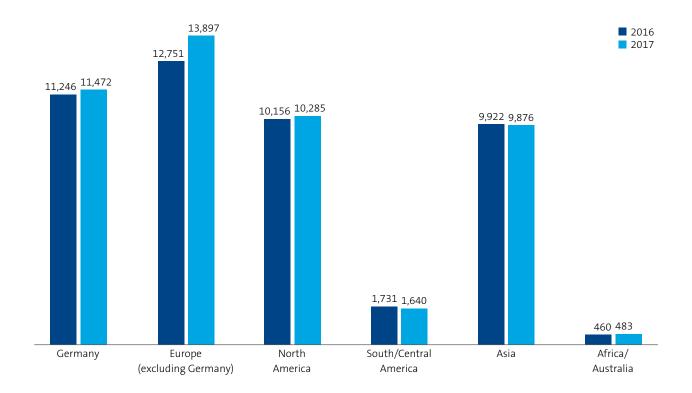
# HUMAN RIGHTS & LABOR

Diverse teams drive innovation at Freudenberg. The best solutions and innovations come when employees contribute their different experience, knowledge and skills to a collaboration. The employees provide new ideas, generate imaginative solutions and create innovative products. Freudenberg's roughly 48,000 employees all act and think like entrepreneurs, this basic attitude unifies employees in some 60 countries.

#### **Employees**

As of December 31, 2017, Freudenberg had 47,653 employees (previous year: 46,266 employees).

FREUDENBERG GROUP WORKFORCE BY REGION At-Equity



#### **Vocational training at Freudenberg**

In 2017, 127 young people (previous year: 112) started vocational training at Freudenberg companies in Germany.

In total, 490 persons were in traineeships at Freudenberg as of December 31, 2017. The programs ranged from 2-year commercial or technical training programs to degree courses at the Baden Wuertemberg Cooperative State University (DHBW). Neighboring companies send their young employees to Freudenberg for vocational training, highlighting the renown enjoyed by the Freudenberg program.

The new vocational training center in Weinheim was completed in the reporting year and offers innovative and modern learning concepts in a light-filled, two-story building. The program includes the Learning Factory 4.0, where trainees learn about company processes through production workflows, helping them gain a quicker grasp of interactions and better control the processes using high-tech machines.

#### **Corporate Principles**

The Freudenberg Group Guiding Principles are Value for Customers, Leadership, Responsibility, Innovation, People and Long-Term Orientation. The principles form the basis and benchmark for everything the Group does. Audits are regularly conducted to monitor implementation of these standards in the workplace.

Nearly 70 percent of employees participated in the Group-wide Guiding Principles & Engagement survey. The Employee Engagement and Performance Enablement indicators exceeded external benchmarks. Managers communicated the outcome to their individual teams in all organizational units. Joint measures were developed and specific changes initiated to bring about continuous improvement.

Emphasis should be placed on the Guiding Principles of People and Responsibility as they express the Freudenberg Group's interpretation of Human Rights & Labor.

The Leadership Principles are part of the Group's Business Principles (see also page 32, Compliance).

#### **Guiding Principle People**

As a family company, we are devoted to our employees' well-being and personal development. We reject all forms of discrimination and harassment and show understanding and respect in our dealings with each other. We promote a multi-cultural environment where employees work together in worldwide teams to enrich our culture and capability. We believe in the value of enduring relationships with customers, suppliers and industrial partners.

#### **Guiding Principle Responsibility**

Our company and its family shareholders together are committed to protecting the environment and being responsible corporate citizens in all countries and communities in which we do business. We take all possible care to ensure the safety of the workplace and of our products. As a family company, we strive for the highest standards of personal behavior. Fairness and integrity guide our conduct amongst ourselves, towards our business partners and the general public.

#### **Leadership Principles**

The Freudenberg Group upholds a social commitment to all its employees in Germany as well as in other countries. In this regard, it is impossible to define a uniform standard. The way this commitment is applied depends rather on the laws, practices, needs and opportunities in each respective country. Discrimination and exploitation of vulnerable people is explicitly prohibited anywhere in the Group.

The business policy of the Group requires compliance with standards of conduct, with which both shareholders and employees can identify:



 $Diverse\ teams\ drive\ innovation. They\ think\ in\ new\ ways,\ generate\ imaginative\ solutions\ and\ create\ innovative\ products.$ 

We also need to survive in fierce competition. Our success must be based on performance. We do not have any dealings with businesses in which illegal or unethical means are employed.

We will not manufacture products that have the purpose of harming people (for example, weapons).

Acting responsibly towards the environment and the safety of our employees are important corporate objectives and should not be limited to bare compliance with the relevant laws.

Compliance with applicable laws and regulations, as well as with the applicable Business and Guiding Principles of the Freudenberg Group and the observance of noncontradictory, supplementary inhouse (e.g. codes of conduct, employee handbooks) and external local practices (together "Corporate Principles") is an indispensable condition for good cooperation between all employees of the Group and forms the binding basis for relationships with

third parties, in particular with suppliers, customers and authorities. They thus form the basis for the economic success of the Group. The Business Principles are mandatory for all employees and must be actively exemplified and implemented at all levels, starting from the Board Members of Freudenberg SE, the executive officers of the respective Business Groups and all other superiors.

Infringements are not acceptable and may result in disciplinary action from Board level down through the management of the Business Groups to the respective superiors. This is especially true in cases of active and passive corruption, breaches of antitrust rules, violation of relevant legal environmental and technical safety and labor law rules (for example, breach of the principle of equality) and violations of the privacy rights of the employees (for example, personal degradation or sexual harassment).

#### **Attractive Employer**

#### Strengthening the employer brand

Freudenberg launched a new global brand in 2015 – promising forward-looking solutions for customers and society at large. Parallel to these efforts, an employer positioning was worked out and established. The employer promise was expanded in 2017. The goal is to make Freudenberg even more attractive, consistent, differentiated and credible as an employer.

Employees from all the Business Groups and regions were involved in developing the brand. Experts interviewed management and workshops were held. The findings from the Guiding Principles survey were also integrated in the process.

#### Sample Awards

In 2017, the Freudenberg Group once again received various human resources accolades. Some examples:

In the **Women's Career Index**, Freudenberg Home & Cleaning Solutions came in second in the Newcomer of the Year category in 2017 and was ranked fifth overall. The index evaluates modern working conditions and how much a workplace offers women an ideal environment for career advancement.

Freudenberg Household Products in Rochdale, United Kingdom, won both the **Gold Investors in People Award** and the **Health and Wellbeing Award**. The certification measures leadership effectiveness within a company and personnel development opportunities. Companies receiving the award have proven with their personnel work that they believe employees make all the difference.

Freudenberg Company Chem-Trend of Michigan, US, was named one of the Top Employers in the region for the sixth time in a row. The company came in ninth in the Detroit Free Press ranking of medium sized companies.

In 2017, the Freudenberg Group in Germany also received the **Fair Company Seal of Approval**, and has done so since 2009. Fair Company is a voluntary pact where companies agree to certain rules guaranteeing fair working conditions at the career start.

#### **Attractiveness**

Freudenberg offers numerous benefits to retain employees and remain an attractive employer. Work is constantly ongoing to expand these benefits and communicate them to employees.

The benefits on offer vary from region to region and site to site but generally exceed minimum legal standards in the various countries. As part of the Talent Management program (see Talent Management) Freudenberg supports numerous continuing education and training programs at all hierarchical levels (see employee development, page 41). Freudenberg also sees maintaining a good work-life balance as important in helping to ensure employee health and well-being. The Group provides best possible medical support as part of an occupational health management program and sponsors numerous sport and fitness programs.

#### **Talent Management**

The competition for top talent is one of the biggest challenges companies face. Talent Management at Freudenberg has been further expanded to meet the company's own standards of excellence.

The fifth Global Talent Management Conference was held in the reporting year. The Business Groups discussed their talented employees with the Board of Management and HR officers during the four-day event. Talent management uses a standardized process launched in 2013, which is evaluated annually for continuous improvement.

In the reporting year, the Freudenberg Group continued with work to create an international, uniform IT system for human resources, to make global staffing procedures more efficient. The personnel management system was expanded to include data sets



The best solutions are created when employees can bring their varied experience, knowledge and skills into a collaboration.

covering 15,000 employees to provide evaluations of performance and potential while also supporting the goal-setting process.

#### Diversity

Diversity is anchored in the Group's values and principles and is also clearly positioned in the brand. Freudenberg is certain that teams of people with different ages, with a balance of genders and varied cultural backgrounds are more successful. The best solutions and innovations come when employees contribute their knowledge and skills to a collaboration. Such teams have new ideas, generate imaginative solutions and create innovative products, At Freudenberg, special attention is given to a balanced gender ratio.

#### **Employee development**

Leadership development was also expanded in 2017. The Leadership Framework from 2015 served as a template for evaluating all existing programs and adapting them or creating new ones as needed.

Group-wide development programs were offered to all levels for the first time in 2017 and more than 150 participants took part around the world. The Business Groups also offered independent programs.

The Operations Leadership Program was also added – a development program focused on qualifying leadership candidates, who oversee production sites.

The continued roll out of the Learning Management System in 2017 helped the Freudenberg Academy take the form of a virtual network of continuing education activities in the Business Groups. The Freudenberg Learning & Development Community collaborates closely on matters of interest throughout the Group and either agrees on and/or develops standard courses accessible to all Business Groups.

#### **UN-Global-Compact-Index**

The UN Global Compact (UNGC) is the world's largest and most important initiative for responsible corporate leadership. Since signing in 2014, Freudenberg has voluntarily agreed to make sure its business is values-based and sustainable.

The following Global Compact Index provides an overview of the 10 principles in the Global Compact and illustrates the pages of the Annual Report where readers can find information about the progress the company has made in implementing these principles.

UNGC-PRINCIPLE	Content	Reference
Human rights		29, 33*, 38–39, 41
Principle 1	Protection and compliance with international human rights	29, 33*, 38–39, 41
Principle 2	No violations of human rights	29, 33*, 38–39, 41

Labor standards		25–27, 29, 33*, 34, 38, 41
Principle 3	Guarantee of right to form collective and bargain collectively	33*
Principle 4	Prohibition of all forms of forced labor	33*
Principle 5	Elimination of child labor	33*
Principle 6	End of discrimination	33*, 38, 41

Environmental Protection		12, 19–23, 25–26, 29, 33*
Principle 7	Environmental protection through care principles	19–23, 25–26, 29, 33*
Principle 8	Support for environmental awareness	19–23, 25, 29, 33*
Principle 9	Development of environmentally friendly technology	12, 19–23, 26

Fighting corruption		33*–35
Principle 10	Anti-corruption measures	33*-35

 $<sup>{}^*\!</sup>Freudenberg's Code of Conduct contains standards, which cover the corresponding principles.$ 

## **COMBINED MANAGEMENT REPORT**

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### COMBINED MANAGEMENT REPORT

#### **FUNDAMENTAL INFORMATION**

#### **BUSINESS MODEL**

#### Organizational structure

The Freudenberg Group (Freudenberg) is a global technology group that strengthens its customers and society long-term through forward-looking innovations.

At year-end 2017, the number of companies in Freudenberg totaled 489 located in 58 countries. 452 of these companies were included in the consolidation. 428 companies, including 167 production and 163 sales companies, were fully consolidated. The remaining companies were holding or management companies.

Together with partners, customers and the world of science, the 11 Business Groups develop leading-edge products, excellent solutions and services for more than 30 market segments and for thousands of applications: seals, vibration control components, nonwovens, filters, specialty chemicals, medical products, IT services and the most modern cleaning products.

BUSINESS OPERATIONS PAREN	NT COMPANY FREUDENBERG SE		
Seals and Vibration Control Technology Business Area	Specialties and Others Business Area		
Business Groups	Business Groups	Business Group	Business Groups
Freudenberg Sealing Technologies	Freudenberg Performance Materials	Freudenberg Home and Cleaning Solutions	Freudenberg Chemical Specialities
Freudenberg Oil & Gas Technologies	Freudenberg Filtration Technologies		Freudenberg IT
EagleBurgmann	Japan Vilene Company		Divisions
Freudenberg Medical			Freudenberg Business Service
Treductively Medical			Freudenberg Service

Please refer to the chapter entitled "Review of Operations by Business Area" for further details and information on locations of Freudenberg companies.

Freudenberg builds on lasting and reliable relationships with customers and partners. The partnership with NOK Corporation, Tokyo, Japan, for example, already spans more than 50 years. Numerous activities in the Americas, Asia (China and India) and in Europe have been jointly established during the decades-long partnership.

Freudenberg and NOK Corporation jointly hold shares in several companies. Particularly worthy of mention are Freudenberg-NOK General Partnership, Plymouth, USA, which is fully consolidated in the consolidated financial statements, as well as NOK-Freudenberg Asia Holding Co. Pte. Ltd., Singapore, which is disclosed atequity as a 50:50 joint venture in the consolidated financial statements.

Further details can be found under "Investments in joint ventures" and "Investments in associated companies" in the Notes to the Consolidated Financial Statements.

Across the globe, Freudenberg's products and services make a valuable contribution to the success of its customers — rarely visible, but always indispensable in the spirit of the new positioning which states that "Freudenberg is a values-based technology group that best serves its customers and society".

Freudenberg offers its customers in the passenger car and commercial vehicle industry, mechanical and plant engineering, textile and apparel, construction, mining and heavy industry, energy, chemical, and the oil and gas sectors excellent innovative technological products and services. In the year under review the customer

base also included companies in the medical technology, civil aviation, and rail vehicles sectors.

Innovation strength, strong customer orientation and close collaboration as well as diversity and team spirit are the cornerstones of the Group. Commitment to excellence, reliability and pro-active, responsible action have belonged to the company's core values ever since it was founded in 1849.

Freudenberg sees itself as an enterprise of entrepreneurs. Operational business is in the hands of independent companies whose management conducts business under their own responsibility. These individual companies in turn belong to Business Groups.

Freudenberg has 2 parent companies: Freudenberg & Co. Kommanditgesellschaft (Freudenberg & Co. KG), Weinheim, Germany, is the strategic parent company, Freudenberg SE, Weinheim, Germany, is the parent company with responsibility for managing business operations. The corporate bodies of Freudenberg & Co. KG are the Management Board, the Board of Partners and the General Meeting. The corporate bodies of Freudenberg SE are the Board of Management, the Supervisory Board and the Shareholder's Meeting. The Management Board of Freudenberg & Co. KG and the Board of Management of Freudenberg SE have the same members. This also applies to the Board of Partners of Freudenberg & Co. KG and the Supervisory Board of Freudenberg SE.

Freudenberg is a family company and is currently owned by some 320 heirs to the founding father Carl Johann Freudenberg.

#### Organizational changes

Acquisitions and disinvestments and discontinued operations

In January 2017, the Freudenberg Medical Business Group acquired further shares of VistaMed Ltd., Carrick-on-Shannon, Ireland. In accordance with the contractual arrangements Freudenberg took control of the company effective January 1, 2017 and it has been fully consolidated since then. VistaMed produces high-quality special catheters along with extruded tubes for the medical device industry, and the company has been working with Freudenberg as a joint venture since 2010.

The Freudenberg Sealing Technologies Business Group acquired Metflex Holding Company Ltd, Blackburn, United Kingdom, in July 2017. The company is a leading developer and manufacturer of membrane and customized sealing solutions for a wide variety of industrial applications.

In October 2017, Capol GmbH, Elmshorn, Germany, a company belonging to Freudenberg's Chemical Specialities Business Group, acquired Colarôme Inc., Saint Hubert, Canada, a natural ingredient specialist. The company holds patents for technologies used to produce a unique palette of natural pigments for food applications.

In the USA, Freudenberg Household Products LP, Aurora, USA, acquired the Playtex household glove business from Edgewell Personal Care Brands, LLC, St. Louis,

Missouri, USA, in October 2017. Playtex is the leading US manufacturer of household gloves and has been active in the market for over 65 years under the Living and Handsayer brands.

#### **Business processes**

During the year under review, Freudenberg continued with its intensive efforts to make products, services and processes more efficient, better and safer. Operational Excellence activities related to both administration and production.

The Group also dealt in detail with digitalization, for example implementing a technology platform on the topic. These technology platforms advance Freudenberg's material, process and systems expertise throughout the Group. Furthermore, there were numerous initiatives at Business Group level. Freudenberg Chemical Specialities, for example, launched a strategic project to evaluate the opportunities and possible efficiency gains of digitalization, both internally and for customers. EagleBurgmann initiated various projects in design, engineering, production, sales and administration for targeted digitalization-driven improvements in processes and increased organizational efficiency.

Moreover, all Business Groups continued to work on responding to customer needs even more effectively and on optimizing business processes. Further details and information can be found in the chapter entitled "Review of Operations by Business Area".

#### RESEARCH AND DEVELOPMENT

The company slogan "Innovating Together" reflects the great importance of innovation for Freudenberg. The ongoing joint work on the sustainable advancement of the product portfolio is a cornerstone of the Group's success and also captured in the values and principles as well as the brand positioning with the benefit statement "Freudenberg is a values-based technology group that best serves its customers and society".

In 2017, Freudenberg conducted research and development activities in the amount of €427.8 million (previous year: €335.1 million). This represents 4.6 percent of sales (previous year: 4.2 percent). Research and development activities include research and development expenses disclosed in the consolidated statement of profit or loss as well as capitalized development expenditure for the current financial year less amortization.

The Business Groups account for the largest share of funds for R&D activities. They cooperate closely with their customers on technology and product developments in their market segments. As a leading technology group and innovative partner, the Group's self-image is founded on meeting the most demanding requirements in terms of product, process and service quality.

The objective of all innovation activities is to constantly expand and renew the product portfolio. Freudenberg measures the effectiveness of R&D activities as the share of new products (products less than 4 years old) in total sales. This share is 33.0 percent (previous year: 28.7 percent)<sup>1</sup>.

#### Strategic realignment of innovation management

Freudenberg addressed the optimization of Groupwide innovation management in the year under review. The project objective was to strengthen technological innovation processes within Freudenberg. Among other things, the role of the responsible Corporate Function was redefined. Renamed Freudenberg Technology Innovation, the Corporate Function is tasked with the development of future technologies and driving forward the innovation power of the whole Group.

Freudenberg Technology Innovation is also tasked with continuously advancing development and innovation activities in the world regions. For example, talks commenced in respect of collaboration with 2 major US institutes working on the development of new energy storage technologies and research into microencapsulation technologies.

#### Innovations as a key to long-term corporate success

The research, development and innovation portfolio has also been developed further with the strategic realignment of innovation activities. There is now an even stronger focus on long-term issues which are processed with greater financial and manpower resources. The identification and prioritization of innovation topics across the Business Groups takes various forms:

- Future project: a global project team came together in 2016 to look ahead to the world in 2050. Assuming a world significantly less dependent on fossil fuels, 6 growth fields were initially defined. The long-term follow-on project launched in 2017 began by analyzing future business opportunities in these growth fields. The findings of this project have a bearing on strategic planning, research projects and Freudenberg's acquisitions pipeline.
- Technology platforms: In 2017, 2 further platforms —
   Digitalization and Hygiene were added to the exist ing 7 platforms of Nonwovens, Sealing Technology,

<sup>&</sup>lt;sup>1</sup> A correction was made to the value for the previous year stated in the 2016 Annual Report.

Molding, Friction, Wear & Lubrication, Surface Technologies, Polymers, Mixing & Reacting. The objective of bundling resources and know-how in forward-looking cross-sectional technologies is to develop concrete competences in the relevant fields.

On the one hand, long-term topics will be intensively pursued in the form of strategic programs. On the other, individual technological issues arising from the technology platforms or the strategic programs will be supported by short-term technology exploration and incubation (TEI) projects. 7 strategic programs and 13 TEI projects are currently being processed.

#### Sustainable innovations improve living conditions

Developing sustainable solutions is one ambition of the Freudenberg Group. The company's portfolio includes many groundbreaking solutions that contribute to improved living conditions; these include numerous strategic projects in the fields of environmental protection, healthcare and energy.

The lightweight-design diaphragm accumulator from Freudenberg Sealing Technologies produced using a new electromagnetic pulsation method enables increases in cycle times and the shortening of hoist times in many sectors of industry. The diaphragm accumulator won the 2017 Innovation Award of the German state of Rhineland-Palatinate.

Freudenberg Oil & Gas Technologies launched an innovative seal for blowout preventers in the period under review. Blowout preventers are valves fitted on the well head which prevent the uncontrolled flow of gases and liquids during drilling. The special seal meets the most demanding requirements and can withstand extreme pressures and temperatures thanks to the high-performance rubber mixtures.

**EagleBurgmann** developed an innovative gas seal based on a metal bellows seal for the International Thermonuclear Experimental Reactor (ITER) in the year under review. The reactor tests the regimes necessary for fusion-based electricity generation in future. The reactor fuel, or plasma, is pumped into a vacuum chamber, treated and returned. The new product is to be used to seal the radioactive area of the vacuum pumps at a temperature of up to 250 °C.

The "Composer" Deflectable Catheter Handle Platform developed by **Freudenberg Medical** offers modularized "plug and play" versatility. The basic idea is to standardize the catheter handle and modularize device delivery applications, which among other things significantly reduces lead times. The surgeon has maximum control over the catheter response during a procedure thanks to the in-line functions in the handle.

An overrunning damper isolator pulley from **Vibracoustic** enables vehicle manufacturers to reduce belt tension in the belt drive in both classic internal combustion engines and electric drives. This lowers consumption and emissions by up to 1 percent.

A further example of the Group's innovation power is the gas diffusion layers used in fuel cells: innovative carbon fiber nonwovens from **Freudenberg Performance Materials** support the reaction of the hydrogen fuel with oxygen, thereby helping one of the most promising future technologies get off the ground.

Freudenberg Filtration Technologies micronAir blue offers drivers the best possible protection inside vehicles. The biocide- and nano-silver-free premium filter offers reliable and long-term protection from fine dust, allergens and microorganisms as well as pollutant gases and odors. The product won the first FILTREX Innovation Award in the year under review. As a filter specialist, the company determines the ideal filter combination for selecting the optimal filter system depending on process and environmental conditions using an innovative instrument called e.FFECT (electronic Freudenberg Filter Efficiency Calculation Tool).

Freudenberg Home and Cleaning Solutions expanded its laundry care range in 2017; among the new products was the "Infinity Dryer", an extendable table clothes dryer with a maximum drying space of 2.60 meters. This enables end users to dry very large items. The new VR 302 vacuum cleaning robot with its innovative cleaning system and even better vacuum power is an innovative addition to the range of electric cleaning equipment that has been marketed under the vileda brand for a number of years, underscoring the growing strategic importance of the e-cleaning range.

In the chemical sector, too, demand for energy efficiency, biodegradability and reduced emissions calls for new raw material solutions and functions. Both Chem-Trend and Klüber Lubrication (both companies belong to the Freudenberg Chemical Specialities Business Group) focused increasingly on water as a key raw material for use in lubricants and release agents, thereby pursuing a highly-innovative approach.

#### **Awards**

Each year, Freudenberg honors the work of young scientists by presenting prizes in natural sciences. The 2017 Karl Freudenberg Prize went to Dr. Tim Bleith for his research into the substitution of precious metals through the environmentally-friendly use of iron. The prize is an expression of the company's appreciation of joint efforts in continuous improvement in the service of society. The 2017 Carl Freudenberg Prize went to 3 scientists: Dr. Michael Schönleber researched into which components lead to improved battery performance and a longer service life. Dr. Simon Klingler developed a method for continuous validation in the context of product generation development. And Dr. Benjamin Häfner's work makes the production processes for important components more efficient. All 3 awardees work and research at the Karlsruhe Institute of Technology. The prize is awarded every 2 years for the best scientific and technical work and is one element of the company's social engagement in the region.



Freudenberg's portfolio includes many groundbreaking solutions that contribute to improved living conditions, for example in the fields of environmental protection, healthcare and energy.

#### REPORT ON ECONOMIC CONDITIONS

# MACROECONOMIC ENVIRONMENT

Global economic growth picked up speed at a noticeable level in 2017. Many market players abandoned their spending and investment restraint, thus generating growth momentum. As a result, almost all leading economies reported stronger growth in gross domestic product than for the previous year.

There was noticeable growth in the eurozone. As capacity utilization improved and interest rates remained low, companies stepped up their investment activities. Unemployment continued to fall, in some cases rising to the full employment level.

The upturn in the USA gained further ground, with rising consumption, exports and investments. Federal Reserve continued to gradually raise interest rates.

Elsewhere, momentum ebbed: in the United Kingdom, the decision to exit the European Union saw the pound sterling take a big tumble and triggered palpable uncertainty among private investors. The Mexican economy increasingly felt the effects of the drawn-out renegotiations on NAFTA. In India, the currency reform and the introduction of a nationwide value-added tax curbed what was otherwise very strong momentum.

EUROPE		
Region	GDP growth 2016	GDP growth 2017
Eurozone	1.8 %	2.5 %
Germany	1.9 %	2.2 %
France	1.1 %	1.9 %
Italy	0.9 %	1.5 %
Spain	3.3 %	3.1 %
Portugal	1.5 %	2.7 %
Ireland	5.1 %	4.9 %
Greece	0.0 %	1.2 %
United Kingdom	1.8 %	1.8 %

Sources: Consensus, European Commission, International Monetary Fund 2017 GDP growth as at February 2018

WORLD REGIONS			
Region	GDP growth 2016	GDP growth 2017	
USA	1.5 %	2.3 %	
Mexico	2.9 %	2.1 %	
Brazil	-3.6 %	1.0 %	
Argentina	-2.2 %	2.8 %	
Japan	1.0 %	1.8 %	
Russia	-0.2 %	1.5 %	
China	6.7 %	6.9 %	
Taiwan	1.5 %	2.8 %	
India	7.1 %	6.6 %	

Sources: Consensus, national statistical offices 2017 GDP growth as at February 2018

#### **Sector-specific environment**

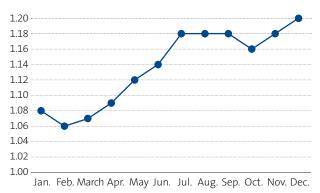
Developments in the Group's key sales markets in 2017 were positive on the back of the good economic situation.

The global automotive industry produced approximately 95 million light vehicles in total, 2 percent more than the previous year. Some 28 million of these vehicles were built in China, where production also grew 2 percent during the course of the year. The second most important region in terms of production volumes was the 28 EU Member States (EU28), where 19 million light vehicles were built, an increase of 2 percent, followed by the USA with 11 million units, representing a decline of 8 percent – although at a very high level. Growth momentum was strongest in Mexico, where production rose by 14 percent to 4 million light vehicles, and Brazil, where production swelled by 26 percent to almost 3 million vehicles following a very lackluster year in 2016. The automotive industry dealt intensively with the strategic consequences of drivetrain electrification. Despite state subsidies, the share of all-electric and hybrid vehicles in global production remained very modest at approximately 4 percent. (Source: IHS Markit)

The international **mechanical engineering** sector benefited from the clearance of the backlog in investment projects, which had prevailed for several years in many regions. In 2017, production grew 11 percent in China, almost 8 percent in the United Kingdom after 2 years of sharp decline, 6 percent in both the USA and Japan, and 5 percent in EU28. (Source: national statistical offices). Significant price pressure in the **textile and apparel industry** again led to noticeable regional shifts in production. Production by world market leader China in 2017 only grew a further 5 percent, with China continuing to lose market share, above all to other Asian countries such as Vietnam, Bangladesh, Cambodia and Myanmar. (Source: national statistical offices)

The global **construction industry** benefited from the ongoing good economic situation, which had a positive impact in both the housing sector and business property development. There was a marked increase in construction activity in most regions, and there were even

EURO EXCHANGE RATE DEVELOPMENT IN 2017 US dollar per euro



Source: Deutsche Bank (January to July 2017) / European Central Bank (August to December 2017); Monthly rates

some signs of overheating in China. Annual average growth was approximately 11 percent in China, 4 percent in the USA and Japan, and 3 percent in Germany. (Source: national statistical offices)

The consolidation phase continued unabated in the **medical** technology sector, where there was a noticeable slowdown in 2017, with growth in the European Union only running at just under 3 percent. There was even a downturn in the USA, where production fell by almost 6 percent. (Source: national statistical offices)

**Private consumption** benefited from the positive economic developments and the associated low level of unemployment, with no worrying price trends.

The **oil price** was quite volatile during the first half of 2017, with the trend on the slightly negative side. However, the oil price picked up significantly from mid-June. The annual average price per barrel for WTI (West Texas Intermediate) was US\$50.86, higher than the prior-year average. (Source: New York Mercantile Exchange [NY-MEX]) The value of the **euro** versus the dollar (as the most relevant foreign currency for the Group) continued to rise until September 2017 and subsequently dipped slightly. The annual average exchange rate was US\$1.14 per euro. That represents a rise of 3 percent compared with the previous year. (source: from January to July 2017: Deutsche Bank/ from August to December: European Central Bank)

#### **BUSINESS DEVELOPMENT AND POSITION**

2017 was a successful financial year for Freudenberg. A factor with considerable impact on the increase in sales was the first-time full-year consolidation of the companies acquired in 2016. The development in the result reflects the one-off effect of the change in status of affiliates previously consolidated at equity in 2016.

#### Forecast/actual comparison

The forecasts made at the beginning of the year with respect to the key financial and non-financial performance indicators were regularly reviewed and updated in the course of the year.

Our performance indicators developed as follows:

FORECAST/ACTUAL COMPARISON, FREUDENBERG				
	ACTUAL 2016	Forecast for 2017	Change	Actual 2017
Sales [€ million]	7,900.1	between 1 and 3 percent	+18.3 %	9,345.6
Profit from operations [€ million]	771.4	slight increase	+17.3 %	905.0
Return on sales [percent]	9.8	stable development	-0.1 % points	9.7
LDIFR	1.8	significant reduction	-22.2 %	1.4

Adjusted for the effects of acquisitions, especially of the Vibracoustic Group, and disinvestments (totaling about €1,283 million) and taking into consideration exchange rate effects (about €-160 million), organic growth in sales was about 4 percent. The forecast of 1 to 3 percent was therefore slightly exceeded.

Following adjustment for acquisitions, disinvestment and exchange rate effects, the forecast for profit from operations was reached.

The financial and non-financial key performance indicators presented are made available to the Board of Management on a monthly basis. This allows trends and changes to be identified in good time so that measures can be taken to counteract any detrimental developments.

The key financial performance indicators are used for assessing the position and development of the Group with respect to earnings and focus on sustainable growth and a continuous increase in enterprise value as indicators for steering future success.

#### Sales

Freudenberg again reported increased sales in 2017. All Business Areas contributed to this increase. Key success factors included the innovative product range, customer-oriented, flexible problem solutions for the various sectors of industry, and structured expansion into attractive markets and strategic business areas. The integration of the major acquisitions made in 2016 also had a positive effect on sales in the 2017 financial year. In 2017 itself, no major acquisitions were made.

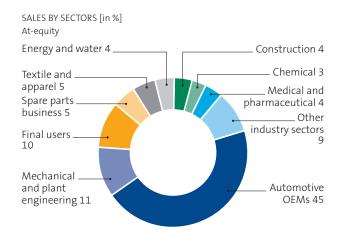
In the financial year under review, Freudenberg reported sales of €9,345.6 million (previous year: €7,900.1 million). On this basis, sales were €1,445.5 million or 18.3 percent higher than the figure for the previous year, representing a new record. Adjusted for the effects of acquisitions and disinvestments, especially of the Vibracoustic Group, in the amount of €1,283.1 million, and taking into consideration exchange rate effects, sales rose by about 4 percent or €322.1 million compared with the previous year.

Freudenberg started the 2018 financial year with orders in hand slightly above the prior-year figure. The main reason was the generally positive market development in 2017 in most Business Groups.

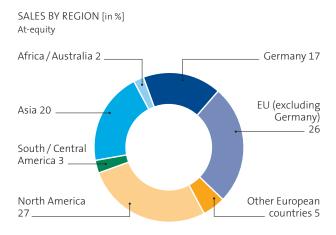
#### Sectors and regions

Freudenberg continued to operate in a challenging market environment in the 2017 financial year.

The share of automotive OEM business accounted for the strongest rise in total sales in the year under review, increasing to 45 percent (previous year: 38 percent). This is mainly attributable to the first full-year consolidation of the Vibracoustic Group acquired in 2016. The share of the mechanical and plant engineering sector, the second most important customer grouping, was largely in line with the prior year level, accounting for a total share of 11 percent (previous year: 12 percent). Business with final users accounted for some 10 percent of total sales (previous year: 11 percent).



The regional distribution of sales was almost constant. Freudenberg generated 26 percent (previous year: 26 percent) of total sales in the European Union excluding Germany. Germany accounted for 17 percent (previous year: 16 percent), on a par with the previous year. North America accounted for 27 percent of total sales (previous year: 26 percent). At 20 percent (previous year: 22 percent), Asia was unable to continue the strong growth of the previous year.



#### **Earnings position**

The Freudenberg technology group continued its good business development in 2017. Adjusted for the factors mentioned under business development and position, sales and consolidated profit again grew. The development in profit reflects one-off effects from the change in status of affiliates previously consolidated at equity in 2016.

[€ million ]	2016	2017
Sales	7,900.1	9,345.6
Cost of sales	-5,085.2	-6,171.1
Gross profit	2,814.9	3,174.5
Selling expenses	-1,298.1	-1,365.8
Administrative expenses	-600.3	-622.6
Research and development expenses	-330.1	-414.2
Other income	742.7	103.3
Other expenses	-137.9	-99.1
Profit before income taxes	1,265.1	883.1
Consolidated profit	1,086.9	700.1

Gross profit rose to €3,174.5 million (previous year: €2,814.9 million). However, the ratio of gross profit to sales fell by 1.6 percentage points to 34.0 percent as a result of the different sales structure of the Vibracoustic Group acquired in 2016.

In the financial year under review, the **selling and administrative expenses ratios** fell as a result of the lower cost structure of the Vibracoustic Group, consolidated for the full year for the first time, as a result of efficiency improvements such as process and system optimizations.

Research and development expenses increased from €330.1 million in 2016 by 25.5 percent to €414.2 million in 2017. The corporate acquisitions, especially of the Vibracoustic Group, had a considerable impact on this figure.

The fall in **other income** to €103.3 million (previous year: €742.7 million) is chiefly due to one-off effects from the previous year. Firstly, income from the change in status of investments previously consolidated at equity occurred in 2016 (Vibracoustic Group in the amount of €567.9 million and Japan Vilene Group in the amount of €15.6 million). Secondly, other income from the previous year included income from the disposal of financial assets as a result of the sale of the Freudenberg Schwab Vibration Control Group.

In the financial year under review, **other expenses** amounted to €99.1 million (previous year: €137.9 million). In the previous year, this item included the impairment of the goodwill of the cash-generating unit Freudenberg Oil & Gas Technologies in the amount of €50.9 million. In the period under review, the main offsetting factor was currency losses, at €7.8 million.

#### **Financial position**

Financing management

Freudenberg SE and the central financing company Externa Handels- und Beteiligungsgesellschaft mit beschränkter Haftung, Weinheim, Germany, are responsible for all the financing activities of Freudenberg, thus ensuring that Freudenberg has sufficient liquid funds at all times. As a general principle, companies obtain the financing they require via cash pool agreements or internal loans — for legal, fiscal and other reasons financing in some countries also takes the form of bank loans guaranteed by Freudenberg SE.

Freudenberg does not expose itself to financial risks through speculation with derivative financial instruments but uses such instruments only for hedging, and therefore reducing, risks in connection with underlying transactions and items. Future transactions are only hedged if there is a high probability of occurrence. In order to ensure the identification and management of all financing risks, the Freudenberg Group pursues a holistic approach to financial risk management. The existing financial risks are identified and limited in an institutionalized control loop.

Although financing conditions have loosened compared with previous years, currency risks on currency markets remain high. In addition, there is volatility on the credit and capital markets. This also impacts the financing conditions for industrial companies. Freudenberg is in a good position to tackle these challenges thanks to its conservative finance policy.

Liquidity measures include high reserves of liquid funds and committed credit lines with core banks.

A key element of external borrowing is a long-term shareholder loan where the interest payable is oriented to a forward interest rate swap plus a premium.

As at December 31, 2017, Freudenberg had undrawn committed credit lines amounting to some €840 million. The interest payable on the certificates of indebt-

edness ("Schuldscheindarlehen") included in the liabilities to banks is based on variable and fixed components. Further details on interest rate structure can be found in the section on interest rate risks in the Notes to the Consolidated Financial Statements.

Off-balance sheet contingent liabilities and other financial obligations of Freudenberg mainly relate to guarantees.

As in the previous year, the rating agency Moody's Deutschland GmbH, Frankfurt am Main, Germany, rated Freudenberg SE, Weinheim, at "A3", with a stable outlook. The Group therefore continues to hold a single-A rating.

This gives Freudenberg very good creditworthiness at investment grade level.

STATEMENT OF FINANCIAL POSITION STRUCTURE				
	Dec. 31, 2016	Dec. 31, 2017	Cha	nge
	[€ million]	[€ million]	[percent]	[€ million]
Asset structure				
Non-current assets	6,470.8	6,399.4	-1.1	-71.4
Current assets	3,752.7	3,794.5	1.1	41.8
Assets	10,223.5	10,193.9	-0.3	-29.6
Capital structure				
Equity	4,603.3	4,835.0	5.0	231.7
Non-current liabilities	2,827.6	2,448.6	-13.4	-379.0
Current liabilities	2,792.6	2,910.3	4.2	117.7
Equity and liabilities	10.223,5	10.193,9	-0,3	-29,6

#### **Capital structure**

The **equity ratio** increased from 45.0 to 47.4 percent. In absolute terms, equity rose by €231.7 million; this was chiefly attributable to the positive result. Negative exchange rate developments and dividends paid to the parent company Freudenberg & Co. KG as well as to non-controlling interests had an offsetting effect. Noncontrolling interests also fell by about €41.4 million. The high share of non-controlling interests in profit was offset by the acquisition of the remaining shares in Integral Accumulator GmbH & Co. KG in Weinheim, Germany, negative exchange rate developments and especially dividends paid.

Non-current liabilities amounted to €2,448.6 million (previous year: €2,827.6 million). The change was mainly due to long-term financial debt. The reduction in liabilities to banks was mainly the result of the certificates of indebtedness of the Vibracoustic Group,

which were reclassified from non-current to current liabilities. The same applies to a certificate of indebtedness of the Freudenberg SE, which must now be disclosed under short-term financial debt.

The €117.7 million rise in **current liabilities** to €2,910.3 million is attributable in particular to the reclassification of long-term financial debt to short-term financial debt. Other contributory factors included the development of other current liabilities, which was offset by the reduction in trade payables. After eliminating exchange rate effects and the effects of acquisitions, noncurrent liabilities fell by 12.0 percent, while current liabilities rose by 4.0 percent.

As regards the currency structure, reference is made to the currency risks section of the Notes to the Consolidated Financial Statements.

#### Investments

Adjusted for acquisitions, investments in intangible assets, tangible assets and investment properties rose during the year under review to a total of €501.5 million (previous year: €407.1 million).

Freudenberg invested worldwide. For example the EagleBurgmann Business Group acquired the plant in Mumbai, India, which had previously been leased. Japan Vilene Company constructed a new production plant for automobile headliners in Mexico. Freudenberg Performance Materials commissioned its new spunlaid plant in the USA. In Slovakia, work started on the construction of a new industrial filter production plant for Freudenberg Filtration Technologies. At Vibracoustic, work started on the extension of production at the Sroda Slaska plant in Poland and investment in a third plant in China, at Chongqing, was approved. In Germany, €175.6 million (previous year: €147.8 million) were invested. In Weinheim, a new training center and the construction of the large office building were completed. In Maisach, work continued on the expansion of the logistics and production facilities of Freudenberg Chemical Specialities. Investments planned for 2018 are likely to be financed from cash flow from operating activities and to have no major effect on net assets.

#### Liquidity

Cash flow from operating activities in the 2017 financial year amounted to €929.0 million, corresponding to a year-on-year decrease of €16.1 million. This fall despite the increase in the profit from operations is largely attributable to the negative development in working capital adjusted for exchange rate effects of acquisitions as a result of the rise in receivables and inventories. Amounts used from provisions also contributed to the outflow of liquid funds.

As a result of the considerably lower acquisitions compared with the previous year, negative **cash flow from investing activities** was significantly reduced, at €-612.1 million. Net additions to the statement of financial position amounted to €469.5 million, above the figure for 2016. As in the previous year, the main additions were made in Germany, the USA and China.

Cash flow from financing activities in the 2016 financial year was €-245.0 million (previous year: €471.3 million). The main factors in this fall were payments to the shareholder and non-controlling interests as well as the repayment of financial debts taken up in the previous year in connection with the acquisitions made.

The Group can meet all of its payment obligations at any time.

#### Assets, equity and liabilities

The total assets of Freudenberg fell by €29.6 million to €10,193.9 million (previous year: €10,223.5 million).

The fall was chiefly attributable to exchange rate changes, which had a significant effect of €-442.1 million on the statement of financial position total. Noncurrent assets fell to €6,399.4 million (previous year: €6,470.8 million). The main factor in this development was the reduction in intangible assets. This includes amortization of intangible assets in the amount of €115.6 million identified in connection with purchase price allocations. In this context, especially systematic amortization of the intangible assets of the Vibracoustic Group and Japan Vilene Company, acquired in 2016, should be mentioned. Adjusted for exchange rate effects and acquisition-related effects, there was a 1.6 percent increase in non-current assets.

The increase of €41.8 million in **current assets** to €3,794.5 million was chiefly attributable to the rise in inventories, securities and cash at bank and in hand, which amounted to €38.1 million and had been relatively low in the previous year as a result of the acquisitions. Other current assets had an offsetting effect of €34.1 million. In this context, especially the reduction of €37.4 million in loans to third parties should be mentioned. Adjusted for acquisition effects and exchange rate effects, there was a rise of €225.5 million.

#### Key performance indicators and overall assessment

**Key financial performance indicators** 

For Freudenberg, sales, profit from operations and return on sales are the key financial performance indicators.

In 2017, Freudenberg grew **sales** by 18.3 percent. Freudenberg aims for profitable growth both from its own resources (organic) and from acquisitions (external). In the year under review, the increase in sales is attributable to the first-time full consolidation for the entire year of the companies acquired in 2016, the market success of our innovative products and the high degree of customer orientation and flexibility. Further explanations are given under "Sales".

The key performance indicator **profit from operations** describes profit before income tax without special effects (for example, significant restructuring expenses), the profit or loss on disposals of assets, impairment of goodwill, results of associated companies, or changes as a result of amendments to International Financial Reporting Standards. In the financial year under review, profit from operations was above the figure for the previous year, at €133.6 million.

**Return on sales**, amounting to 9.7 percent, is calculated from the 2 performance indicators of sales and profit from operations.

#### Non-financial key performance indicator

For its internal reporting, Freudenberg uses the **LDIFR** (**Lost Day Incident Frequency Rate**) as a non-financial key performance indicator. It measures all accidents at work involving at least one day's absence per million working hours. Starting with the 2015 financial year, the indicator also includes data for temporary employees and agency staff. On this basis, the LDIFR for 2017 was 1.4 (previous year: 1.8).

In 2017, there was a special focus on occupational safety at all levels of the company. As a result, the negative trend reported for 2016 was reversed and the significant reduction which had been forecast was achieved.

#### Overall assessment

Despite the persistently challenging macroeconomic environment, Freudenberg continued on its path of profitable growth. Although exchange rate effects were still negative, the Group was able to outperform its targets for 2017 in terms of the financial performance indicators without taking into consideration the one-off effects in the previous year, achieving a record profit from operations.

In view of its solid net assets and financial position and its high-earnings business, Freudenberg's assessment of the overall financial position of the Group is very positive. It is not necessary to change this assessment as a result of the events presented under "Major Events After the Date of the Statement of Financial Position".

# REVIEW OF OPERATIONS BY BUSINESS AREA

The Group's 4 Business Areas – Seals and Vibration Control Technology, Nonwovens and Filtration, Household Products, and Specialties and Others – focus on long-term, sustainable and profitable growth.

Together with its partners, customers and the world of science, Freudenberg develops cutting-edge products, excellent solutions and services for more than 30 market segments and for thousands of applications in the spirit of the positioning "Freudenberg is a values-based technology group that best serves its customers and society".

#### SEALS AND VIBRATION CONTROL TECHNOLOGY BUSINESS AREA

In the 2017 financial year, the Seals and Vibration Control Technology Business Area comprised the following Business Groups:

- Freudenberg Sealing Technologies
- Freudenberg Oil & Gas Technologies
- EagleBurgmann
- Freudenberg Medical
- Vibracoustic

Sales in this Business Area rose to €5,412.5 million (previous year: €4,175.8 million). The headcount at the close of the financial year rose to 31,686 (previous year: 30,418).

FREUDENBERG SEALING TECHNOLOGIES			
	2016	2017	
Sales [€ million]	2,143.5	2,224.7	
Workforce	13,648	14,164	

The figures for the previous year have been adjusted in light of the change in internal reporting structures whereby joint ventures are consolidated using the equity method.

#### FREUDENBERG SEALING TECHNOLOGIES



#### **Business development**

The 2017 financial year was a very successful one for Freudenberg Sealing Technologies.

Developments in automotive business in particular were encouraging. Automotive business at Freudenberg Sealing Technologies grew 3 percent in the period under review despite the noticeable slowdown in momentum already evident in this sector, above all in the USA.

The situation for general industry business improved considerably in the 2017 financial year, but nevertheless remained challenging. Freudenberg Sealing Technologies nonetheless held up well and grew business activities in the general industry sector 13 percent year-on-year. Individual segments, such as agriculture or construction machinery, reported even higher growth.

#### **Key events**

Freudenberg Sealing Technologies acquired Metflex Holding Company Ltd based in Blackburn, United Kingdom, in the year under review. The Business Group is thus continuing to develop its market-leading position in membranes. Among other products, Metflex manufactures diaphragms for gasometry and gas control. Metflex has developed a special technical process, known as "Dispersed Fibre Technology" which is used to manufacture new, innovative diaphragm seals. Another key technology is the production of very thin rubber-coated fabric. Gas meters operate at very low pressure. The thinner the diaphragms are, for example, the more sensitive and precise the gas measurement's operation.

Schneegans Freudenberg GmbH & Co. KG, Emmerich am Rhein, Germany, realigned its Integrated Precision Solutions (IPS) operations at the Emmerich location in

response to profound changes in market conditions, particularly with regard to simple rubber parts and compounding. Production and cost structures in these 2 segments are being adjusted to the changed market conditions. Production of simple rubber parts and the mixing plant are to be closed down by the end of 2018. Some 40 jobs are affected. The company has a head-count of roughly 140 at the site. Freudenberg is investing approximately €3 million in realignment measures such as technologically demanding and high-quality products for electric vehicles or for sensor systems.

The Business Group invested €2.5 million in a new production line for diaphragm accumulators at the facility in Bamberg, South Carolina, USA. Diaphragm accumulators are used in numerous applications such as pumps, actuators, hydro-accumulators, valves and regulators. In addition, €4 million are being invested at the facility in Öhringen, Baden-Württemberg, Germany, to complete a major order for radar sensors for the automotive business.

Freudenberg Sealing Technologies won the Innovation Award of the German state Rhineland-Palatinate for an electromagnetic pulsation method for the production of diaphragm accumulators. This new approach has fewer process steps, needs fewer components and has shorter installation times. Joining the 2 halves of the aluminum housing – through the use of electromagnetic pulse technology (EMPT) – and filling the gas side with nitrogen are handled in a single step. Electromagnetic pulse forming uses powerful magnetic fields to reform electrically conductive materials without contact. This opens up new application options for diaphragm accumulators such as hydro-pneumatic suspension applications in the automotive industry or in industrial hydraulic systems.

Further innovations also achieved market success in the year under review. Particularly worthy of note is the pressure compensation element DIAvent. It combines 2 functions that 2 separate components have mostly handled until now. The core of the solution is a combination of nonwovens and an umbrella valve with reversible switching. DIAvent permits engineers to make electrical vehicles more reliable and economical. Traction batteries for electric vehicles, which run on voltages of several hundred volts, must be well protected. Electrical components are packed into a thin-walled yet stable metal housing so that splashing water and fallen rocks cannot damage them. But the housing cannot be fully hermetically sealed because it would deform, for example, due to fluctuations in the external air pressure or the temperature. That is why housings of this kind are equipped with at least one pressure compensation valve. A second valve is a safety measure: it only opens if damage to battery cells results from a malfunction and it is imperative to drain off all the gas emitted by a damaged cell in just a few seconds. DIAvent is a smart pressure compensation element which combines both functions into a single component.

Another example is a novel seal for traction-battery housings that contributes to the more economical production of electric vehicles, ever for smaller production runs. The Profiles-to-Gasket concept was specially developed for production runs of up to 5,000 batteries per year. Seals designed with the Profiles-to-Gasket approach supplement those that have so far mainly been designed for high-volume production. The traction battery is the core of an electric vehicle. Its high-voltage components must be protected from moisture and dirt in long-term operation. At the same time, it must be possible to open battery housings for maintenance. That is why automakers are turning to housings with a large cover that allows good access to all components. Freudenberg Sealing Technologies already offers profiled flat gaskets to guarantee complete impermeability when the cover is closed. But the cross-section and dimensions of such seals must be adapted exactly to a specific battery. Changes are impossible without fabricating a new tool. The investment in a tool of this kind mainly repays the expense at higher volumes. As a result, straight sealing profiles come into use for very small production runs, such as the manufacture of prototypes. Their lengths can be cut manually. They are connected to one another using special corner pieces, making it possible to cover any housing geometry.

Seals are increasingly being asked to do more than just seal: in the future, they should be able to forecast when they will break down or perform condition monitoring in real time. Freudenberg Sealing Technologies presented a new generation of smart seals for the food and process industry in the year under review. Seals primarily consist of materials that cannot process signals in their pure form. That is why material developers are investigating materials that seals can employ to become sensors or even actuators, for example, without impairing their original mission. In combination with a suitable design, it is possible for a seal to indicate its level of wear and for the information to be tied to system data. This makes it possible to predict when a particular seal must be replaced. In this way, operating costs can be optimized and maintenance intervals can be scheduled pro-actively. Seals can therefore perform their task more efficiently over their entire operating life.

Freudenberg Sealing Technologies is adding a new line of PTFE (polytetrafluoroethylene) seals to its product portfolio. The new seals round out the selection of aerospace component solutions that have been designed to meet exacting industry requirements and the challenging demands of a wide range of applications. PTFE is widely used when high temperature and media resistance are called for. It is especially useful in aerospace applications where temperature extremes, contact pressures and leakage control are crucial to the safe and efficient operation of an aircraft. These applications include engines and gear boxes, landing gear, wheels, brakes and airframes.

#### **Profile:**

Freudenberg Sealing Technologies is a leading market and technology partner for demanding applications, including sealing technology and electro-mobility. Starting from the invention of the Simmerring, which was developed by Freudenberg in 1932, the Business Group today offers a broad customer-oriented product portfolio—from tailor-made individual solutions to complete sealing packages and components for electric vehicles. Together with its partner NOK Corporation, Tokyo, Japan, Freudenberg Sealing Technologies forms a global network offering products of the same consistently high quality worldwide.

FREUDENBERG OIL & GAS TECHNOLOGIES			
	2016	2017	
Sales [€ million]	88.5	110.2	
Workforce	478	512	

#### FREUDENBERG OIL & GAS TECHNOLOGIES



#### **Business development**

The 2017 financial year proved to be another very challenging year for Freudenberg Oil & Gas Technologies, even though the oil price and activities in the oil and gas industry, particularly in North America, stabilized.

Freudenberg Oil & Gas Technologies therefore focused its efforts throughout the year on further expanding relations with strategic global customers, gaining market share from competitors in key component and product segments, developing new products, and improving profitability.

In the 2017 financial year, drilling activities in the USA primarily concentrated on shale oil production. Major international onshore oil projects in Kazakhstan and Kuwait made a substantial contribution to sales at Freudenberg Oil & Gas Technologies in the year under review.

#### **Key events**

In 2017, Freudenberg Oil & Gas Technologies continued to restructure business, implement efficiency programs and cost-cutting measures, and adjust production capacity. These activities were carried out at all Freudenberg Oil & Gas Technologies locations around the world. The aim is to make business stronger and more profitable so that the Business Group is ready when the oil and gas industry picks up again.

During the year under review, the Business Group invested in health, safety and environmental measures and introduced the GROWTTH lean manufacturing program.

The Business Group continued to focus on exploration and production solutions for the upstream segment. It developed new proprietary and patented products for this segment designed to support the future growth of Freudenberg Oil & Gas Technologies.

Freudenberg Oil & Gas Technologies launched an innovative seal for blowout preventers in the period under review. Blowout preventers are valves fitted on the well head which prevent the uncontrolled flow of gases and liquids during drilling. The special seal meets the most demanding requirements and can withstand extreme pressures and temperatures thanks to the high-performance rubber mixture.

In 2017, appointments were made to specific positions in Engineering and Technical Sales in order to further expand the technical capabilities of the Business Group and adapt to changing market requirements.

#### **Profile:**

Freudenberg Oil & Gas Technologies provides innovative sealing solutions and differentiated sealing products to the global oil and gas industry. The Business Group focuses on solutions for the upstream exploration and production segment. It develops and markets products for drilling / BOP (pressure control), wellhead equipment, fracturing services, offshore oil and gas platforms, and subsea applications. Freudenberg Oil & Gas Technologies serves a wide range of customers including oil and gas producing companies, original equipment manufacturers (OEMs) and engineering and service companies that provide technologies, equipment and services for producing oil and gas from land-based, offshore platforms and subsea throughout the world. Freudenberg Oil & Gas Technologies has its own materials development and product testing lab where new materials and solutions are developed and tested.

EAGLEBURGMANN				
	2016	2017		
Sales [€ million]	778.5	789.4		
Workforce	5,551	5,534		

#### **EAGLEBURGMANN**



#### **Business development**

Developments in the Business Group's markets in 2017 were volatile and challenging. EagleBurgmann was nevertheless able to grow orders and sales as planned.

Conditions in the oil and gas market segments remained extremely challenging despite the slight global upturn in oil prices. EagleBurgmann nonetheless successfully expanded its long-standing cooperation with compressor manufacturer Solar in the USA and concluded a multi-year framework agreement to deliver seal supply systems for gas pipelines.

In China, EagleBurgmann won a major order for initial delivery of some 1,000 mechanical seals and more than 900 seal supply systems for the Hengli project, a major refining complex in the north eastern Liaoning Province.

During the year under review, business opportunities in industries using oil products as feedstock were subdued. The chemical industry was reluctant to make new investments and construct new facilities.

Developments in the service business in all regions were stable. This is in particular attributable to after sales services.

In terms of regional development, EMEA, Asia Pacific, China and America generated above-average sales growth for the Business Group. In some countries, for example Venezuela and Mexico, local economic and political developments had a negative impact on EagleBurgmann sales.

In 2017, EagleBurgmann worked steadily to increase order volumes and profit, and continued its efforts to balance the portfolio. To this end, numerous change measures were initiated and processes were stabi-

lized. The expansion and consolidation of existing markets as well as an intensive focus on the pharmaceutical industry, water procurement and wastewater treatment, energy, petrochemicals, and the food and beverage processing industry played a central role.

#### **Key events**

In order to deliver on "Operational Excellence", Eagle-Burgmann started lean activities in 2017 to become an even more efficient and customer-centric organization. These activities included setting up the "Corporate Lean" function. Numerous lean workshops were organized for the production departments at various locations. Machine downtimes, for example, were reduced by optimizing setup processes.

Digitalization has high priority in all units at EagleBurgmann. The aim is to achieve targeted improvements in processes and increase efficiency in the organization. Various projects were therefore implemented in Design, Engineering, Production, Sales and Administration. One example is the further development of design standards to improve the efficiency of digital parts lists and detail drawings.

2017 saw the start of a corporate culture and personnel development program designed to transform Eagle-Burgmann into a learning organization, thereby strengthening competitiveness. One of the first measures is to develop a more open feedback culture and implement an informal, international communication platform for dialog between management and employees.

EagleBurgmann developed a sophisticated sealing solution for vacuum pumps in the International Thermonuclear Experimental Reactor (ITER). ITER is one of the

largest international research projects. One of the world's largest vacuum chambers with a capacity of some 8,000 cubic meters was built for the reactor. During the fusion process, plasma is drawn through a vacuum chamber, treated and returned; consequently the technical demands on the vacuum pumps in terms of tightness in both pressure directions and extreme temperatures were very demanding. EagleBurgmann solved this task with a newly-developed gas seal based on a metal bellows.

The Business Group's engineering headquarters in Japan and Germany cooperated closely to develop a series of mechanical seals featuring O-rings and a family of metal bellows seals to market maturity. Both types are suitable for applications in oil and gas production and processing, and are fully compliant with API 682 4<sup>th</sup> edition regulations. These seals were developed under the core part strategy to enable standardized, automated design.

#### **Location changes**

In light of the market situation and expected business development for metal expansion joints, EagleBurgmann closed the facility in Lakeside, California, USA, at the end of 2017. Furthermore, production and after sales service for fabric expansion joints relocated from Hebron, Kentucky, USA, to Broken Arrow, Oklahoma, USA.

#### Profile:

EagleBurgmann is one of the leading international manufacturers of industrial sealing technology. The Business Group manufactures and markets a broad range of high-quality products, from technically advanced, customer-specific solutions to large-batch products for pumps, compensators and agitators.

FREUDENBERG MEDICAL				
	2016	2017		
Sales [€ million]	148.7	172.1		
Workforce	1,068	1,488		

The figures for the previous year have been adjusted in light of the change in internal reporting structures whereby joint ventures are consolidated using the equity method.

#### FREUDENBERG MEDICAL



#### **Business development**

The medical device market again posted strong growth in 2017. As in previous years, growth was highest in the Asia region, while Europe and North America reported moderate increases. In this environment, Freudenberg Medical continued on its growth path in the year under review and expanded its global customer base. The Business Group now supplies 24 of the 25 major manufacturers of medical devices and has established itself as a leading quality supplier.

Medical device manufacturers are increasingly looking for suppliers whose innovations accelerate growth in the medical device market. In the year under review, Freudenberg Medical once again offered these companies a broad range of proprietary technologies. The versatile and innovative Composer Deflectable Catheter Handle Platform, the new generation of HemoPax balloon coatings or the FlexSeal Introducer Sheath, a minimally invasive solution that optimizes support access

for large bore catheter procedures, are particularly worthy of note. These technologies enable medical device companies to develop innovative products at competitive costs and accelerate time to market by significantly shortening development cycles.

Freudenberg Medical has a global presence at 11 locations in the USA, Latin America, Europe and Asia, and is therefore able to serve customers worldwide. International customers in particular value this service and initiated projects with Freudenberg Medical during the year under review.

#### **Key events**

Freudenberg Medical acquired an additional 40 percent of VistaMed Ltd., Carrick-on-Shannon, Ireland. The Business Group now owns 90 percent of the company. VistaMed is a leading supplier of catheter solutions and assembly services, complex extrusion and mini-

mally-invasive devices. The company has grown significantly since Freudenberg Medical made its initial investment several years ago and had a headcount of approximately 430 at 2 locations in Ireland in 2017.

VistaMed completed the expansion of its main production facility in Carrick-on-Shannon, Ireland, during the year under review. The new building has ISO Class 7 cleanrooms for contract manufacturing of catheter-based minimally invasive devices and space to expand extrusions and catheter assembly. Investment totaled some €9 million. The expansion is confirmation of strong demand for VistaMed products and services. Only recently – in October 2016 – a €10 million state-of-the-art research development center for innovative catheter technology was built in Carrick-on-Shannon.

Freudenberg Medical established a legal entity in Shenzhen, China, in the year under review in response to rapid growth in business in Asia. Furthermore, the Business Group announced a 1,200 square meter expansion of its manufacturing operation in Shenzhen. The planned state-of-the-art production line will provide better support for local customers and enable co-developments. The Freudenberg facility in Shenzhen currently has 4 ISO Class 8 cleanrooms and is certified to ISO 13485. The investment will bring an additional 600 square meters of cleanroom able to accommodate 10 injection molding machines.

In addition, the Business Group opened a sales office in Singapore to serve the fast-growing customer base in the South East Asia/Pacific region even more efficiently.

Freudenberg Medical concluded the first rollout phase of its global ERP system with implementation at the location in Gloucester, USA; this is in response to the significantly greater requirements with respect to data integrity and analysis. The Business Group now operates a harmonized ERP system at all locations in the USA as well as in China and Costa Rica. Preparations for the rollout at European locations continued to make progress in the year under review. The system includes cutting-edge electronic quality management functions and gives Freudenberg Medical a decisive competitive advantage in the medical device market.

#### **Profile:**

Freudenberg Medical is the global partner for the design, development and manufacture of innovative medical products. The company's portfolio comprises catheter solutions for minimally-invasive procedures and components made from complex medical materials. The company is a leader in the field of high-precision silicone and thermoplastic components and tubing as well as metal hypotubes.

VIBRACOUSTIC		
	2016	2017
Sales [€ million]¹	1,016.6	2,116.1
Workforce	9,673	9,988

<sup>&</sup>lt;sup>1</sup>The figures for the previous year have been adjusted in light of the change in internal reporting structures whereby joint ventures are consolidated using the equity method. Included as a fully-consolidated company effective July 1, 2016.

#### **VIBRACOUSTIC**



#### **Business development**

In 2017, Vibracoustic continued on its sustainable, profitable growth path in a challenging market environment, outpacing the market in terms of growth. Vibracoustic increasingly faced higher material prices and a downturn on the important U.S. market. This contrasted with market growth in Europe and Asia. Vibracoustic recorded its strongest organic growth in South America and India in 2017, followed by China/APAC and North America. There was moderate growth in Europe, Vibracoustic's strongest-selling market. Growth was primarily attributable to the kick-off of new projects.

The trend among automakers to offer larger numbers of fully or partially electric-driven vehicles calls for new approaches and solutions in vibration control, and brings new opportunities. While the internal combustion engine in a hybrid drivetrain still generates noise and vibrations which must be minimized, electric vehicles present entirely different challenges for vibration

control technology. Noise and vibrations generated at higher frequency ranges and by auxiliaries which were previously masked by the internal combustion engine become audible and noticeable. Vibracoustic is collaborating closely with leading OEMs to develop innovative and efficient solutions to these challenges.

The Business Group again won numerous major orders for global vehicle platforms during the period under review. The Chassis Business Unit, for example, won the largest order in Vibracoustic's history for air springs for the new platform of a British automaker. Furthermore, German premium automakers chose Vibracoustic air springs for their first e-SUV, respectively their first all-electric sports car. A customer placed a large-scale order for cab mounts and hydromounts for a heavy-duty pick-up truck that is particularly successful in the USA, while a further German premium automaker ordered both

rear axle mounts and rear differential unit dampers for the all-wheel drive variants of one platform. Numerous major orders were also won in the growth market of Asia, including in particular orders for engine mounts and chassis bushings for the platform of a Korean car manufacturer, and drive components for the platform of a Chinese automaker.

#### **Key events**

The sales and development operations of the Vibracoustic CV Air Springs joint venture in Turkey were integrated in the Vibracoustic organization and the equity investment was increased to 65.1 percent effective April 1, 2017. The objective is to generate further synergies for original spare parts customers in the Commercial Vehicle segment. Vibracoustic CV Air Springs remains an independent joint venture and is part of Vibracoustic's Chassis Division. The new organizational structure will further strengthen existing cooperation and also intensify collaboration in air springs operations. By bringing together the sales units, Vibracoustic can now offer commercial vehicles customers the complete product portfolio for vibration control technology and air springs from a single source. By taking the management lead for air springs development, Vibracoustic can bundle the expertise and know-how of both companies.

Vibracoustic believes in innovations to constantly improve the vibration behavior of all classes of vehicle. One example is the combination of the familiar decoupled pulley and a freewheel function: in vehicles with fuel-saving start-stop systems, the decoupled pulley eliminates the effects of an engine that is constantly starting and stopping. The overrunning damper isolator pulley enables car manufacturers to achieve further fuel savings because the belt tension can be significantly reduced, thus minimizing friction losses. A German premium automaker has been using this new pulley combined with a torsional vibration damper in series production of 3- and 4-cylinder engines since 2017.

To resolve the issue of the conflicting objectives of comfort and driving dynamics, Vibracoustic developed

switchable air springs with a 3-chamber concept. By switching individual chambers on and off by means of intelligent controls, the air springs can be set to 4 different stiffness levels depending on the particular driving situation to achieve specific driving dynamics. An actively switchable version of the 3-chamber air spring system has featured in the new SUV series of one German premium automaker since the end of 2017.

Furthermore, an innovative component and a new production process are used for the 3-chamber air springs. To meet manufacturers' growing efficiency demands and to make the parts as light as possible, metal is often replaced by plastic. However, in the case of the air spring cover, which is bolted to the bodywork, this is not always possible because the cover transfers high forces to the body. This is why Vibracoustic has now developed a hybrid material concept. The metal inserts which are used to transfer forces are surrounded by plastic and then welded to components made entirely from plastic by hot gas welding. In this process, the plastic at the 2 joints is melted. The 2 plastic components are then pressed together, cool and form an optimum bond. Air spring covers produced this way are not only lighter but the joints between the covers and the body are up to 3 times as stiff.

Air springs fulfill the demands of many drivers for improved comfort. However, developers have to meet ever more complex demands on installation space. In cooperation with a licensor, Vibracoustic has developed a method whereby air springs need less installation space but still preserve the same characteristics. An activated carbon block integrated on one of the air chambers increases the amount of air in the spring — without increasing the size. This innovation is already being used in the series production of a model manufactured by a German premium automaker.

#### **Location changes**

Following an intensive review of all options, the management of Vibracoustic concluded that closure of the Breuberg location is unavoidable. 176 production employees are affected. A large share of the 64 jobs in IT,

Material Development and Administration will be preserved and will relocate from Breuberg to Weinheim. Under the closure plans for Breuberg, production volumes are to be relocated to other existing locations in Europe. The measures planned for the various sites are scheduled for completion by the end of 2018.

The reassessment of business in Brazil decided that production at the rented plant in Guarulhos should be gradually transferred to the Group's own facility in Taubaté. Closure of the operations in Guarulhos and relocation to Taubaté will be completed by June 2018.

#### **Profile:**

Vibracoustic is the world's leading supplier of automotive vibration technology. With a global network of development and production locations, the Business Group supplies almost all passenger car and commercial vehicle manufacturers as well as their direct suppliers worldwide with components that significantly increase onboard comfort.

FREUDENBERG PERFORMANCE MATERIALS			
	2016	2017	
Sales [€ million]	950.9	935.3	
Workforce	3,755	3,726	

#### **NONWOVENS AND FILTRATION BUSINESS AREA**

In the year under review, the Nonwovens and Filtration Business Area comprised the following Business Groups:

- Freudenberg Performance Materials
- Freudenberg Filtration Technologies
- Japan Vilene Company

In total, the Business Area generated sales of €1,909.4 million (previous year: €1,812.0 million). At year-end 2017, the headcount was 8,175, compared with 8,334 at the close of the previous year.

#### FREUDENBERG PERFORMANCE MATERIALS



#### **Business development**

Overall, business development for Freudenberg Performance Materials in the year under review was quite positive. However, weaker than expected demand in some industries and regions impacted growth. In conjunction with unfavorable exchange rate effects this led to stagnating sales.

In contrast, there was strong demand in the carpet tiles and filtration business in 2017. The Business Group also generated growth in the promising medical segment and in special applications such as microfilament textiles based on Evolon technology and in battery separators.

Developments in the automotive industry in the various world regions were mixed.

After a strong first 6 months, there was a slight slow-down in the construction industry in Europe which led to lower demand for roofing applications from Freudenberg Performance Materials.

The apparel market grew in China and India, but weakened in Europe and the USA where structural changes persisted and where demand for luxury and formal menswear continued to decline

The persistently difficult economic situation in South America curbed development in the hygiene and shoe components business.

#### **Key events**

Freudenberg Performance Materials further improved its industrial performance in 2017. Ongoing and intensive Operational Excellence activities and bundling technology know-how resulted in further improvements in productivity, efficiency and product quality. Consequently, the Business Group is not only in a position to offer its customers even more efficient products, but also more than offset the impact of rising raw material prices.

In order to remain competitive and profitable over the long term, Freudenberg Performance Materials must be able to respond flexibly to increasingly volatile market conditions. The Business Group therefore continued to restructure its logistics activities at the Weinheim location in 2017. The planned measures were defined following in-depth discussions with employee representatives and are to be implemented in 2018.

In the year under review, Freudenberg Performance Materials optimized European production activities in the Apparel segment in order to meet customers' requirements more swiftly and effectively. The measure led to improved performance and reduced costs. The Business Group defended its leading global position in interlinings business despite declining demand in the interlinings sector.

The Business Group stepped up its innovation activities in the year under review with the aim of developing new and advanced process technologies and fostering growth through special products with attractive market potential. Examples include the following:

In the Building Materials segment, a new line equipped with state-of-the-art process technology for manufacturing high-quality, glass-fiber reinforced spunlaid felts was commissioned at the site in Macon, Georgia, USA. With this investment, the Business Group is strengthening its leading position in the market for polyester nonwovens for roofing applications in North America.

Business development in the production unit for advanced wound care in Weinheim was very satisfactory in 2017. This unit is part of a long-term partnership agreement with an innovative world-leading customer in advanced wound care. With this initiative, together with the further development of the business in polyurethane foam systems for advanced wound care, Freudenberg Performance Materials systematically expanded its portfolio in the most forward-looking market segment in medical technology.

In the Apparel segment, Freudenberg Performance Materials launched the comfortemp fiberball padding thermal insulation – the world's first padding made of

fiberballs. The thermal insulation properties of this padding are more than twice as high as conventional padding and the new material is as light and soft as down. In view of the considerable interest shown by the market when the new padding was launched, comfortemp fiberball padding is expected to have a positive impact on business development in the attractive Performance Textiles segment.

In the year under review, the Business Group continued with work to install a carbonization line in Weinheim. The line supports efforts to expand business in high-

performance gas diffusion layers for fuel cells.

Freudenberg Performance Materials was recognized with several awards in 2017. Among them was the 2017 ISPO Award for the innovative comfortemp fiberball padding thermal insulation. The Business Group also received the Ökotex certificate for its commitment to consumer protection and sustainability.

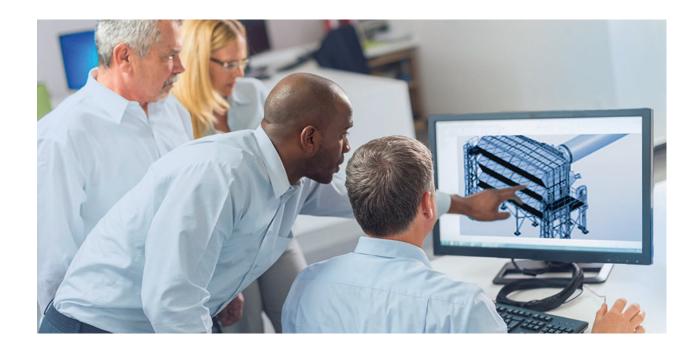
In Asia, Interface Thailand presented Freudenberg Performance Materials with the Supplier Excellence Award 2017 for outstanding quality and service. Interface is a globally leading carpet manufacturer. Furthermore, the Business Group was recognized as the best supplier of bituminous roofing membranes by its Russian customer Technonicol.

#### **Profile:**

Freudenberg Performance Materials is a leading global supplier of innovative technical textiles for a wide range of markets and applications, including automotive, construction, apparel, hygiene, medical, footwear and leather goods, as well as special applications. The Business Group has 25 production locations in 14 countries worldwide.

FREUDENBERG FILTRATION TECHNOLOGIES			
	2016	2017	
Sales [€ million]	423.3	423.1	
Workforce	2,255	2,085	

#### FREUDENBERG FILTRATION TECHNOLOGIES



#### **Business development**

Demand for automotive filters in the OEM and aftermarkets in Europe and North America developed well benefitting in particular from orders for cabin air filter modules for electric vehicles. In China, sales to key accounts declined due to market developments, with adverse effects on business with engine intake air filters in particular.

The Business Group defended its position as the market leader in original equipment and original spare parts in the cabin air filtration segment despite a generally challenging market environment and increased competitive and price pressure. To consolidate this position, Freudenberg Filtration Technologies invested in efficiency-enhancing manufacturing processes and differentiated product innovations and well as the further development of global key account management.

In the Industrial Filtration Division, the systematic focus on selected market segments and the associated more pronounced customer orientation had a positive impact on business. Customer needs were targeted more specifically and addressed significantly more swiftly through the expansion of segment-specific product, system and service offerings; this is confirmed by the noticeable increase in the number of innovations launched in the relevant market segments.

Good sales increases in Industrial Filtration in almost all world regions and segments could not entirely offset the decline in automotive filter sales in China and the effects of transferring the engine intake air filter business in China to the former minority shareholder. The markets in South America and South Africa remained challenging, while sales of air filters for gas turbines in the Middle East and South East Asia increased. Exchange rate effects had a slightly negative impact.

#### **Key events**

With effect from January 1, 2017, Freudenberg Filtration Technologies acquired the business of Alphasorb (Pty) Ltd., Johannesburg, South Africa, a manufacturer of high-quality gas-phase filtration solutions. The acquisition makes the Business Group one of the world's largest producers of alumina pellets which are used as a filtration medium.

The Business Group was recognized with several innovation awards in the year under review. For the first time, Freudenberg Filtration Technologies won the FIL-TREX Innovation Award presented by EDANA, the world's leading association for nonwovens, for the micronAir blue automotive cabin air filter. The industrial water treatment business under the brand name of Aquabio won 2 prestigious awards: the new "Sand-Cycle" technology was honored with the UK Water Industry Award as the "Most Innovative New Technology of the Year"; Water Reuse Europe presented the Business Group with the award for the "Most Innovative Water" Reuse Scheme". The European automotive filtration team won the "f-cell award" sponsored by Baden-Württemberg's Ministry of the Environment, Climate Protection and the Energy Sector for the optimization of the micronAir Type N filter for fuel cells.

Innovations are an indispensable building block for the market success of Freudenberg Filtration Technologies. The Business Group's customer-driven organizational structure therefore focuses increasingly on product, system solution and service innovations and their swift, successful market launches. During the year under review, an innovative modular system was launched to enhance the flexibility of filterCair, the range of services for automotive paint shops, and to respond to changing market needs. The Business Group developed a new generation of air filters for mobile room air cleaners specially designed to meet the demanding requirements for a healthy indoor climate in Chinese homes and offices, particularly with regard to the high levels of fine dust particles. The tried-and-tested pocket filter program was fur-

ther optimized with the introduction of 2 product developments — Viledon Compact T90 and Viledon hydro-Maxx. Outstanding innovations in the Automotive Filters Division were a high-efficiency anti-allergy cabin air filter and multi-stage air quality concepts developed specially for electric vehicles.

Freudenberg Filtration Technologies realigned the automotive filters business in China during the year under review. In the past, cabin air filters were produced at 3 locations, and these operations were combined at 2 plants in Suzhou und Chengdu. As a result of this realignment, the Business Group expects to improve production efficiency and optimize the supply chain in order to serve customers even more effectively. The production and sale of engine intake air filters for the Chinese market was combined at the Changchun location: the shares in Freudenberg & Vilene Filter (Changchun) Co., Ltd. previously held by Freudenberg Filtration Technologies and Japan Vilene Company were transferred to the former minority shareholder Changchun Autofilter Co., Ltd., effective November 1, 2017. Freudenberg Filtration Technologies is thus focusing exclusively on the development and production of automotive cabin air filters in China.

Freudenberg Filtration Technologies expanded manufacturing capacity in both Divisions to enable further growth. Among other things, the Business Group invested in a new filter line for pocket filters and a manufacturing module for cabin air filters in Europe, a production line for air filters in China, and a high-temperature filter line in India.

#### **Profile:**

Freudenberg Filtration Technologies is one of the world's leading specialists in the development and production of air and liquid filtration solutions and their applications. The Business Group's solutions make industrial processes more economical, conserve resources, protect people and the environment and thus contribute to improving the quality of life.

JAPAN VILENE COMPANY 1		
	2016	2017
Sales [€ million]	437.8	551.0
Workforce	2,324	2,364

<sup>&</sup>lt;sup>1</sup> Fully consolidated as of April 1, 2016.

#### JAPAN VILENE COMPANY



#### **Business development**

Global market conditions for Japan Vilene Company in 2017 were mixed. Compared with the previous year, business development improved in Japan and slackened in North America and Asia.

The market environment for the Automotive Materials division was subdued due to lower sales in the small car segment in the USA. There was moderate growth in floor mats business in the USA, but delays in building the new facility in Mexico impacted headliner business. The fiber business was in line with expectations, with moderate growth in China and the rest of Asia.

Conditions for the Industrial Materials division varied, particularly as a result of the difficult situation for Medical Materials business in Japan and Hygiene in Korea. Developments in the Air Filters and Battery Separators segment were generally positive.

#### **Key events**

Japan Vilene Company became one of Freudenberg's Business Groups in April 2016. The shareholders are Freudenberg SE (75 percent) and Toray Industries, Inc., Tokyo, Japan (25 percent).

In 2017, further numerous measures to integrate Japan Vilene Company in the Group were implemented. One important step was involving the Business Group in the strategy process. Furthermore, various HR trainings took place to roll out the Freudenberg employee development process at Japan Vilene Company's locations in Japan and the USA.

In the Automotive Materials division, Japan Vilene Company's floor mat team was recognized with the "Best Performance Award" from Nissan Motor Co., Ltd. for the second year in succession. The criteria for the

award include timely shipment, response time and quality.

In addition, the seventh injection molding line for all-weather floor mats was installed at VIAM Manufacturing, Inc., Manchester, USA. These mats not only protect the vehicle floor from dirt and sand, but also make cleaning easier. They are becoming increasingly popular in the USA. The company plans to commission a further machine in 2018. These new machines will help the Business Group grow sales.

The subsidiary Japan VIAM Co., Ltd., Moriyama, Japan, which manufactures floor mats, celebrated its 10<sup>th</sup> anniversary. The floor mat business, and Japan VIAM Co., Ltd. in particular, play a central role in the growth strategy of the entire Japan Vilene Company.

The new headliner production facility was opened in Aguascalientes, Mexico, in August. It joins the Business Group's existing 4 headliner factories in Japan, USA, Korea and China as the fifth headliner production location.

Furthermore, Japan Vilene Company continued to invest in the Medical Materials business: the inauguration ceremony for a new factory manufacturing angiography sets operated by the subsidiary Pacific Giken Co., Ltd, Yasu, Japan, and located in Moriyama City, Shiga, Japan, was held in October. The new factory will increase production volume and raise productivity. Series production of the sets is scheduled to commence in early 2018. Angiography sets are used in hospitals and contain on average 8 square meters of high-performance nonwoven manufactured by Japan Vilene Company. Vilene Create Co., Ltd., Tokyo, Japan, the sales company in Japan, is responsible for sales and logistics.

In the year under review, Primearth EV Energy, a tier 1 supplier of battery systems for the automotive industry and one of Japan Vilene Company's most important customers, presented the Business Group with its "Final Cost Award 2016" for battery separators for nickelmetal hydride batteries. The customer thus recognized the intensive value engineering activities that help save production costs for the newly-developed product.

In the filter business, Freudenberg & Vilene Filter (Thailand) Co. Ltd., Chonburi, Thailand, a joint venture with Freudenberg Filtration Technologies, won the "Best Delivery Award" presented by Keihin Thermal Technology (Thailand) Co.

Japan Vilene Company's strategy in the Amenity Materials business is to offer face mask products for end consumers based on technologies used in industrial face masks. A new end consumer face mask, the "Fulshut Mask Fuwatto Pleat Type", was launched in September. This is the first pleated mask that considerably reduces exhalation resistance and significantly facilitates breathing.

#### Profile:

Since it was established in 1960, Japan Vilene Company has maintained its position as the leading domestic manufacturer of nonwoven materials under the motto of "Engineering Fabric Innovation", utilizing its long-standing raw material expertise and considerable know-how in the fields of production processes and technologies as well as nonwoven converting, and offering a wide range of products through its Automotive Materials and Industrial Materials divisions.

FREUDENBERG HOME AND CLEANING SOLUTIONS			
	2016	2017	
Sales [€ million]	859.3	938.4	
Workforce	2,962	3,030	

#### **HOUSEHOLD PRODUCTS BUSINESS AREA**

The Household Products Business Area comprises the Freudenberg Home and Cleaning Solutions Business Group whose vileda, O-Cedar, Wettex, Gala, Marigold, SWASH and Framar brands are active in the mechanical cleaning and laundry care segment for final users and professional cleaning companies.

#### FREUDENBERG HOME AND CLEANING SOLUTIONS



#### **Business development**

The consumer climate continued to brighten in 2017, and the market environment was generally friendly.

Against this backdrop, Freudenberg Home and Cleaning Solutions clearly outpaced the market in terms of growth and further extended its position as market leader in the year under review.

Freudenberg Home and Cleaning Solutions' core business grew with attractive products and innovations combined with a noticeably stronger media presence. The Turbo Easy Wring & Clean product innovation was a driving force for the market and consumption in almost all countries with high double-digit growth compared with the previous year.

E-commerce business development was extremely positive, with the growth rate continuing in the high double-digit range of previous years. Freudenberg Home and Cleaning Solutions sees further potential in this business and will actively move forward with the digital transformation.

In the institutional cleaning business, Vileda Professional developed twice as fast as the market. The focus was on hospitals and care facilities as well as the major regional markets of Germany, England, Russia, and North America. As an additional offering, Freudenberg Home and Cleaning Solutions' business partners could also access further solutions and services via digital apps.

#### **Key events**

The integration of the Italian company Gimi S.p.A., Monselice, Italy, a laundry care specialist for laundry driers, ironing boards and household ladders, was one focus of activities in the year under review. Freudenberg Home and Cleaning Solutions acquired Gimi S.p.A. in 2016. Under the motto of "Growing together", Gimi laundry care product sales were integrated in Freudenberg Home and Cleaning Solutions' national companies, a new vileda product line was developed, processes were combined and major investment programs at both factories in Monselice and Mombello, both Italy, were initiated. Gimi S.p.A. was consolidated for the full year for the first time in 2017.

An acquisition in the second half of 2017 further strengthened the Business Group. Freudenberg Household Products LP bought the Playtex glove business from Edgewell Personal Care Brands, LLC, St. Louis, USA. Playtex is the leading US manufacturer of household gloves and has been active in the market for over 65 years under the Living and Handsaver brands.

Further areas of investment included improving productivity throughout the value chain. In production, attention focused on reducing process costs, large-scale expansion of the LEAN programs, and strengthening processes with suppliers. Furthermore, the Business Group invested in IT systems to improve the system-based integration of all management processes.

Freudenberg Home and Cleaning Solutions and its brands were again recognized with numerous product awards in several countries during the year under review. Particularly worthy of note is the prize awarded to the Business Group for a program of measures designed to foster diversity in the company. This program received the FKi (Women's Career Index) prize from the Federal Ministry for Family Affairs, Senior Citizens, Women and Youth in March 2017 in recognition of the company's long-term measures and factual basis for achieving greater objectivity, transparency and continuity for equal opportunities.

#### **Profile:**

Freudenberg Home and Cleaning Solutions is one of the leading international manufacturers of brand cleaning articles and systems and laundry care products. The products are marketed under the brand names of vileda, O-Cedar, Wettex, Gala, Marigold, SWASH and Framar.

FREUDENBERG CHEMICAL SPECIALITIES			
	2016	2017	
Sales [€ million]	1,004.0	1,070.8	
Workforce	3,359	3,502	

#### **SPECIALTIES AND OTHERS BUSINESS AREA**

In the year under review, the Specialties and Others Business Area mainly comprised the following Business Groups:

- Freudenberg Chemical Specialities
- Freudenberg IT

Overall, the companies in this Business Area generated sales totaling €1,342.3 million (previous year: €1,270.6 million) in the year under review. At yearend 2017, the headcount was 4,762 compared with 4,552 at year-end 2016.

#### FREUDENBERG CHEMICAL SPECIALITIES



#### **Business development**

Economic development in the world regions and industries of key significance for Freudenberg Chemical Specialities was generally stable in 2017. The macroeconomic environment, however, remained challenging. Among other things, persistent exchange rate fluctuations and weak demand in some parts of the heavy

industry sector prevented an even stronger rise in the business volume of Freudenberg Chemical Specialities. Sales in the oil and gas industry, on the other hand, developed better than expected. Continued growth in Europe, strong business in North America, and accustomed stable growth in Asia laid the foundation for more than satisfactory business development in the Business Group.

In the year under review, Klüber Lubrication benefited from very good demand in the food market and with automotive suppliers. Further factors with a positive impact were business with distributors as well as strong demand from customers in the oil and gas industry.

With its wide-ranging portfolio, Chem-Trend is increasingly gaining an edge over competitors in terms of customer projects and put in a convincing performance in 2017 in market segments such as tires, rubber, thermoplastic and composites.

SurTec clearly outpaced market growth throughout the year. Growth was stimulated in particular by successfully implemented customer projects with a long-term planning dimension as well as strong demand from customers in the automotive supplier industry.

Capol could not continue its robust growth of the previous year at a comparable level even though the company won several new customers; this was attributable to weak demand in some regional markets and distributor reorganization.

OKS grew in all key business segments throughout the year.

#### **Key events**

Chem-Trend commissioned the expanded R&D center at its global headquarters in Howell, USA. The existing facilities were expanded by some 50 percent and include an applied research laboratory, an analytical laboratory and additional office space. The new center significantly accelerates the development of new, even more efficient and environmentally-compatible release agents.

Capol GmbH acquired Colarôme Inc. in October. The company holds patents for technologies used to produce a unique palette of natural pigments for food applications.

The new European logistics center for Klüber Lubrication, Chem-Trend and OKS in Maisach was handed over to Klüber Lubrication. Operations will commence once the technical infrastructure has been installed and function tested. The center will help to significantly speed up all logistics processes and thus further improve customer service.

Chem-Trend Limited Partnership, Howell, USA, acquired the global business of Huron Technologies Inc., USA, and the Ultra Purge brand of Italian purging compounds producer Moulds Plus International in 2016. The integration of both businesses was successful and has been concluded.

Klüber Lubrication and Chem-Trend further strengthened their market position in Eastern Europe by establishing their own national companies. In Romania, Klüber Lubrication took over the long-standing authorized partner Super Plus, Chem-Trend acquired its Romanian distribution partner Rubio Trading & Consulting. Under the Business Group's shared service concept, both new companies operate from the same location in Sibiu, Romania.

At the beginning of 2017, Freudenberg Chemical Specialities launched a strategic project to evaluate the opportunities and possible efficiency gains of digitalization, both internally and for customers. Following an analysis phase of several months, the implementation phase for selected individual projects at Klüber Lubrication and SurTec began in the 3<sup>rd</sup> quarter.

The Business Group was recognized with several awards in the year under review, including the following: Klüber Lubrication North America in Tyler, Texas, USA, was recognized as one of the "Best companies to work for in Texas", Klüber North America in Londonderry, New Hampshire, USA, won the "Best companies to work for" award presented by "Business New Hampshire Magazine". Chem-Trend in Howell, USA, was recognized for the sixth time in succession as one of the "Top Workplaces" in Michigan, USA, an award presented by "Detroit Free Press".

With innovative "Hydro Lubricants", Klüber Lubrication achieved a breakthrough in the development of even more environmentally-friendly and resource-efficient specialty lubricants. The company's tribology experts developed homogeneous lubricants with water as a functional component. Using water in this way, it is now possible to achieve performance parameters previously unattainable with water, such as excellent cooling capacity or energy savings through significant reductions in friction.

Klüber Lubrication published a comprehensive sustainability report at the beginning of the year, becoming the first company in the Freudenberg Chemical Specialities Business Group to clearly document its strategic targets and measures for improving sustainability in terms of its own ecological footprint and the added value of sustainable solutions for customers.

#### **Profile:**

The Freudenberg Chemical Specialities Business Group comprises the operationally autonomous divisions of Klüber Lubrication, Chem-Trend, SurTec, OKS, and Capol.

Klüber Lubrication is one of the world's leading manufacturers of specialty lubricants.

Chem-Trend is a world market leader for release agents used to manufacture composite, rubber, plastic, metal and polyurethane molded parts.

SurTec is a leading supplier of chemical specialties for surface treatment and electroplating.

OKS specializes in performance lubricants and in repair and maintenance products.

Capol is one of the world's leading manufacturers of coatings for the confectionery industry and supplies glazes, release agents and sealing agents as well as other specialty products.

FREUDENBERG IT		
	2016	2017
Sales [€ million]	165.0	173.0
Workforce	826	886

#### **FREUDENBERG IT**



#### **Business development**

The IT market, a key area of digitalization, maintained its strong momentum throughout 2017. Companies of all sizes and active in all sectors are increasingly focusing on the concrete challenges of digitalization and possible solutions. Freudenberg IT continued to position itself as a "global IT partner at eye level" with the upper midsize market.

The Business Group provides concrete support in the form of ever more diverse cloud services enabling customers to free up resources by making intelligent use of their large data volumes (big data). Offerings in the context of the most important partnerships with SAP and Microsoft were also expanded with regard to the specific requirements of digitalization. Freudenberg IT continued to systematically develop its own portfolio—from the Digital Workplace (Microsoft Office 365)

through to a new SAP-based "Manufacturing as a Service" offering. The focal areas of consulting activities were SAP and the Internet of Things.

In 2017, Freudenberg IT business in the USA yet again confirmed its outstanding position in the Business Group's sales development. Concerted investments were made in new lead generation and customer retention activities with a view to developing the sales pipeline. These activities complement already established and successful sales processes in a long-term perspective.

In Europe, the opening of the location in Košice, Slovakia, in 2016 increasingly paid off in the year under review. In terms of sales, on the other hand, the situation was challenging due to intensive local competition. The Business Group stepped up its efforts and worked on diverse new formats in 2017 to achieve

positive outcomes in this situation, too. The success of this approach was confirmed by the acquisition of new customers with future potential and generally positive developments in the second half of the year, for example in the area of the Internet of Things.

Freudenberg IT business development in China in 2017 was very positive. The Chinese market showed considerable interest in topics such as "Manufacturing as a Service". Freudenberg IT in China continued to receive support from Europe in the form of campaigns because German companies with business activities rank among the Business Group's most important customer groupings. Freudenberg IT also launched initiatives to actively address local target groups in 2017.

#### **Key events**

Numerous communication events were hosted and held in 2017 to further intensify the dialog with customers and interested parties. Freudenberg IT made its own contributions and organized its own stands at leading trade fairs such as CeBIT, Hannover Messe and SAP SAPPHIRE in Orlando, USA, as well as many regional technical conferences. New formats such as the "Virtual Customer Innovation Day" were successfully established. On the marketing side, the focal topic in all regions in 2017 was digital lead generation.

Issues related to the "Internet of Things" proved to be an extremely interesting point of contact with potential new customers — particularly in Europe and China. The same applied to all aspects of modern workplaces, a subject addressed by IT decision makers across all industries. In the USA, the issue of security was harnessed in a similar fashion. Freudenberg IT offers con-

crete expertise and services in this field that can be customized to suit the maturity level and specific requirements of individual customers.

The cloud was another focal issue throughout the year. This issue was actively linked to all of Freudenberg IT's key initiatives with regard to market approach and customer dialog.

Furthermore, 2 new organizational units were set up. The "Planning, Steering and Control" team has been assigned the overarching task of creating optimal processes and structures to realize the future "FIT IT Factory". The "intelligent Security Operations Center" (iSOC) functions as a competence center to ensure IT security. The performance capability of the iSOC has already been demonstrated during the first practical assignments in connection with global cyber-security challenges (viruses).

#### **Location changes**

A new sales office was opened in Exton, Pennsylvania, USA. In addition, the Freudenberg IT team in Durham, North Carolina, USA, relocated to a new building.

A presence in Germany, China, Mexico, Slovakia and the USA continues to ensure proximity to customers and 24/7 availability of both services and contact persons.

#### **Profile:**

Freudenberg IT is a global, full-service IT provider headquartered in Weinheim, Germany. More than 80 percent of the company's sales stem from outside the Group, making it one of the most successful IT spinoffs in Germany. Freudenberg IT is the reliable IT partner for the upper midsize market — worldwide.

## REPORT ON EVENTS AFTER THE DATE OF THE STATEMENT OF FINANCIAL POSITION

Major events after the date of the statement of financial position which are not included either in the statement of profit or loss or the statement of financial position are explained in the Notes to the Consolidated Financial Statements under the section "Major events after the date of the statement of financial position".

#### REPORT ON OPPORTUNITIES AND RISKS

Freudenberg is exposed to numerous opportunities and risks inseparably associated with business activities. Monitoring technological, political and social changes in particular is part of proactive entrepreneurial behavior. This often generates opportunities to be harnessed in order to secure and specifically improve the company's competitiveness. Opportunities are addressed in the context of the annual planning process and pursued and reported throughout the year. Longterm opportunities for profitable growth are primarily identified as part of the strategy process. Freudenberg operates a Group-wide risk management system, in which newly-acquired enterprises are also integrated, to identify risks in a timely fashion and respond to them appropriately.

#### **Opportunities**

#### **Global presence**

Due to its global presence, Freudenberg has for many years been able to offer products and services at uniform worldwide standards. As a result, Freudenberg can keep pace with the international strategies of its customers, for example in production or research and development. Traditionally, Freudenberg has leveraged this expertise for many customers from Europe or North America as they gain a foothold in emerging countries. As the presence in these countries increases, some progress is being made to successfully support the international strategy of some customers from emerging economies entering the market in western Europe. If this trend were to intensify in the future, Freudenberg could achieve additional benefits from its global presence. With the Freudenberg global brand, the Group gives a clear benefit statement, strengthens the image and raises visibility, for example as a solid supplier or an attractive employer.

#### Investments in strategic growth areas and regions

A central element of strategic planning is the continuous evolution of existing business through product and process innovations with a view to achieving profitable, significantly higher than market growth in existing business areas. This is achieved by expanding the portfolio through selective, targeted acquisitions in order to close identified technology gaps and develop access to new markets. The successful "bolt-on acquisition" strategy in the defined growth areas therefore continues. Examples in 2017 include the acquisition of Metflex Holding Company Ltd, Blackburn, United Kingdom. In addition, options to acquire new areas of business that complement Freudenberg's existing organization are also investigated. In the medium term Freudenberg's goal is a strategically balanced portfolio with sales distributed evenly among the regions of the Americas, Europe and Asia.

## Trend- and regulation-oriented product development

Social trends are constantly changing. Changes in consumer behavior and growing expectations of products and services, for example with regard to product sustainability, are key drivers in the search for innovative solutions and new raw materials. New regulations and standards reflect these changing trends. Freudenberg therefore closely aligns the further development of its products to regulatory requirements. Systematically focusing on regulatory changes with reference to trends and the Group's ensuing innovation activities offers significant market potential and opportunities for the future.

#### Pioneer for future technologies

As a global technology group, Freudenberg works constantly on product and process innovations and develops technology-based solutions for the future together with its partners. In spite of all necessary adjustments, the ongoing trend toward digitalization in various forms (Internet of Things, Industry 4.0, ...) as well as the shift toward sustainability and environmental awareness represent an opportunity for profitable growth for Freudenberg.

The strategy-oriented innovation activities therefore focus on the continuous further development of the Group's entire portfolio. This applies above all to the sectors of mobility, digitalization, energy, environment, healthcare, comfort and lightweight construction. Consequently, the key issues during the year under review for the Business Groups active in the automotive industry were e-mobility and reducing emissions. The chemicals business also addressed environmentally-friendly solutions, and highly-innovative approaches were made possible in the medical devices business by bundling know-how. Numerous awards in 2017 confirm the success of this approach.

#### **Future mobility concepts**

As a partner of the automotive industry, the foreseeable changes in drive technology and alternative mobility concepts also impact Freudenberg. The term "new mobility" as used by Freudenberg not only covers e-mobility but also includes developments for a spectrum of drive technologies such as improvements in internal combustion engines, hybrid solutions, pure-electric cars and vehicles powered by fuel cells.

Freudenberg is well prepared for these development thanks to its materials know-how and more than 10 years of experience researching components for high-performance batteries for electric vehicles as well as some 20 years of experience researching the development of fuel cells. Advances and new developments in battery components, engines, charging units, filters, thermal management, vibration control systems or specialty lubricants offset or more than compensate for reductions in demand for seals. Going forward, Freudenberg will remain a competent provider of solutions for high-tech innovations — for all kinds of drivetrains.

#### Harnessing synergies for strategic issues

Throughout the world regions, Freudenberg's know-how and innovative strength is used in more than 30 market segments and for thousands of applications. The company engages in numerous activities specifically targeted at pooling this knowledge because the potential thus generated makes a key contribution to securing the future. Synergies are harnessed to drive key strategic issues such as digitalization, sustainability and materials efficiency across the Business Groups. Joint projects and programs are always implemented under expert guidance and have already produced significant results.

A future project launched in 2016, for example, has a very long-term perspective. Based on scenario technology, employees and external experts are jointly engaged in anticipating possible future developments and drawing up hypothetical consequences and economic forecasts beyond Business Groups borders. The specialist knowledge of the relevant experts is pooled in 9 technology platforms to derive Group-wide innovation activities that make a contribution to securing the future of the Group. These are key cross-sectional technologies of interest to several Business Groups.

#### **Talent management**

A talent management process covering the majority of employees worldwide has been in place at Freudenberg for several years. The process establishes a uniform procedure for talent management throughout the entire Group. It includes harmonized assessment systems and is based on standardized skills profiles and definitions of potential. This enhances the comparability of assessments and facilitates personnel development. The process improves the basis on which Freudenberg can take personnel decisions.

#### Risk management system

The Group's risk management system is a decentralized system oriented to the Group's organizational structure. It covers all fully consolidated Freudenberg companies, and includes all Group measures addressing the main risks. This process in particular ensures the structured identification, assessment, control and monitoring of main risks. The process also includes appropriate risk communication and the continuous improvement of the risk management system.

The primary objective of the risk management system is the prompt identification of risks that might jeopardize the continued existence of the company and the initiation of appropriate countermeasures. The intention is not to avoid all potential risks, but rather to create the leeway for taking a deliberate decision to enter into a risk backed by a comprehensive knowledge of essential information.

The risk management strategy is derived from the general strategy of the Group. The risk management system is developed, refined and audited as required.

Controlling, internal auditing, the compliance organization, the Code of Conduct, the internal control system, various quality assurance systems as well as several Corporate Functions make a significant contribution to the success of the Group's risk management.

#### **Risks**

Risks are defined as all future developments, events or actions that could have a negative impact on the targets and strategies of the Group.

The following deals with risks classified as significant for Freudenberg ranked in descending order by their importance according to the potential level of damage. These risks can have very differing impacts. They may occur individually and independent of one another or simultaneously. In all cases they have the potential to impact directly or indirectly the net assets, financial position or results of operations of the Group. Quantitative data are not disclosed because qualitative factors affecting operating activities such as failure to meet corporate targets or damage to the company's reputation are included in impact classification.

#### Legal risks and compliance

Freudenberg is a globally active manufacturer of functionally relevant technical components and system parts for the automotive industry and many other sectors of industry. Freudenberg develops and produces specialty lubricants, release agents and a broad range of specialty chemicals for very diverse applications. Freudenberg also produces cleaning equipment and filter products for end users and is becoming increasingly active in the manufacture and sale of medical materials and components. A broad range of services in various business segments as well as in the field of IT rounds off the Freudenberg portfolio. Consequently, Freudenberg is exposed to various legal risks, including in particular product liability risks, contractual warranty risks, risks relating to competition and antitrust law, anti-corruption regulations, export controls, tax and excise duty law, intellectual property rights (patents and brand law), asset misappropriation fraud, IT security and data protection, as well as risks in the fields of occupational health and safety and environmental protection. These risks can affect Freudenberg to various degrees and can lead not only to fines or other penalties or compensation, for example, but can also impact the reputation and image of the Group as a whole. In extreme cases, legal risks could have a substantial effect on Freudenberg.

Freudenberg has many measures in place to respond to these legal risks, including comprehensive quality assurance mechanisms tailored to the requirements of the respective business models and value chains, clearly-defined product specifications, instructions, regular training for employees, documentation and preventive contractual solutions containing provisions limiting liability and taking account of the parties' spheres of influence. These measures are flanked by customary insurance cover which is thoroughly analyzed and where necessary adapted to changed conditions on an annual basis.

The Group conducts its global business in many different jurisdictions under different legal and regulatory frameworks that are undergoing change and becoming steadily more complex. The scale and scope of the laws and regulations that must be observed are subject to constant changes that are sometimes difficult to predict, and demand a high level of information processing, interdisciplinary and cross-border communication as well as a swift response and proactive approach.

By tradition, compliance with laws and regulations as well as internal guidelines and Freudenberg's own Guiding Principles and Business Principles has very high priority at Freudenberg. Employees are made aware of, skilled and trained in the relevant legal risks for their respective Business Group and the regions of relevance for Freudenberg on the basis of harmonized internal guidelines; they are expected to observe and comply with these requirements.

Freudenberg uses classic methods (documents in all relevant languages, forms, sample presentations, templates and attendance seminars) to communicate compliance issues through training, seminars, dialog and discussions. Modern communication instruments such as web-based training, e-learning tools, interactive video conferences, etc. are also being increasingly used to complement the classic activities and reach as many employees as possible.

Despite all carefully applied control and prevention mechanisms in our compliance structure and compliance measures, there is a residual risk that is unavoidable given the size and complexity of our global organization. Moreover, the possibility that Freudenberg or Freudenberg employees unconsciously infringe(s) third-party rights cannot be ruled out; this could trigger negative judicial consequences or damage the image or reputation of Freudenberg.

#### Macroeconomic and sectoral risks

Freudenberg delivers solutions to many customer segments and sectors and is active in many regions and countries. The broad diversification of the Group reduces dependence on individual customers, customer groupings, regions and countries. Nevertheless, Freudenberg is dependent on the general economic situation, particularly with regard to general demand for its products and services, and dependent on some major customers. In spite of sustained efforts to diversify further, a slump in demand in a specific region or sector could lead to a substantial decline in sales and earnings for Freudenberg, as for most other companies, and thus pose a not insignificant risk for Freudenberg.

Freudenberg has implemented several measures to limit the negative consequences of demand-side risks. In particular, the company has appropriate capacity flexibility and practices active working capital management. Freudenberg regularly monitors several success indicators and can thus respond promptly to negative developments. In the context of a long-term response to demand-side risks, Freudenberg makes targeted investments in research and development, in individual regions and customer relations as well as selected strategic growth areas.

Freudenberg is closely following the United Kingdom's negotiations with the EU to leave the European Union (Brexit), has analyzed the possible effects on business (including exchange rate fluctuations, customs arrangements, legal framework and specifications, posted workers, data protection, adjustment requirements) and made preparations. The long-term impact depends on the separation agreement, which might possibly fail to materialize. Depending on the terms of the separation agreement, there may be a limited operational and strategic impact on Freudenberg. As long as Brexit does not lead to a global economic downturn, the overall effect on Freudenberg will be manageable.

## Interruption of operations and long-term disruptions

The classic risk of unplanned interruptions of operations has several possible causes. The main ones are interruptions in production, raw material availability, delivery delays, restricted availability of IT infrastructure, damage from natural hazards, or any combination of these causes. The possible consequences are loss of sales revenue and earnings, contract infringements, possible contractual penalties and claims for damages as well as reputational damage.

Freudenberg has taken numerous precautions to maintain and safeguard IT systems (back-up solutions, emergency data centers) as well as to meet contractual delivery obligations (dual/multi-sourcing, lead centers with interchangeable infrastructures, cross-plant tools) and to ensure delivery reliability and contract compliance, and has also taken out insurance cover for insurable individual risks. Despite all the measures that have already been taken or will be taken in the event of an emergency, there is a potential residual risk of a temporary interruption in operations with a possible impact on the sales and earnings of the Group.

#### Information security risk

Modern business processes are based to a significant extent on information recorded, processed, exchanged and stored by electronic means. Potential risks caused by faults in these processes could impact both internal business processes and communication with customers and suppliers and could, for example, lead to the interruption of operations at Freudenberg or at a third party. Demands on the reliability and security of IT systems are intensifying as a result of technological progress and the trend towards greater networking. As a provider of services, Freudenberg offers its customers the usual guarantees regarding availability and performance.

The aim of the guideline on information security issued by the Board of Management is to preserve the confidentiality, availability and integrity of information. Freudenberg deals with the relevant information security risks by operating information security management systems oriented to the ISO/IEC 27001:2013 international standard. The Business Groups, Corporate Functions and Freudenberg Regional Corporate Centers conduct comprehensive risk monitoring and implement the appropriate measures. For example, measures such as geographically separate, redundant data centers are implemented to deal with technical risks. Numerous internal training and communication measures encourage heightened awareness on the part of employees with regard to the correct handling of information and information processing systems. An assessment of the information management security system and its necessary further development is conducted on a regular basis. This is particularly relevant in light of the general trend towards growing cyber risks.

#### **Financial risks**

As an internationally active company with major share-holdings in other countries Freudenberg is exposed to financial risks which under certain circumstances could significantly impact the net assets, financial position or results of operations of the Group. Such risks include financial risks from the Group's intensified M&A activities arising from the potential impairment of goodwill or of unrecognized obligations. Freudenberg employs various measures to manage these risks. The Group has several specialist functions and expert groups specifically tasked with the identification, analysis and control of Freudenberg's financial risk profile. In addition, specific corporate bodies discuss and define existing and future processes concerning the methodology and control of financial risk management.

Various measures to safeguard liquidity are in place which allow Freudenberg to react swiftly to unexpected liquidity-related risks. Such risks are hedged by solid banking and Partners' financing and high liquid reserves. Freudenberg has a comfortable equity ratio, a stable level of Partners' reserves, and comprehensive credit lines.

In addition, Freudenberg is exposed to exchange rate and interest rate risks. Managing these risks is implemented by internal guidelines and processes and monitored by a treasury management system. Because the exchange rate risks of the various companies have a partially offsetting effect, the effective foreign exchange risk is determined for the Group as a whole and controlled by a central unit.

Interest rate risks arise from possible changes in the market rate and can lead to changes in the market value of fixed interest investments. Freudenberg supports subsidiaries in reducing interest rate risks.

Funds for subsidiaries are made available in the form of loans or cash pool agreements. Freudenberg companies channel surplus liquidity to the central finance department.

Binding internal guidelines for Freudenberg companies clearly specify that derivative financial instruments may not be used for speculative purposes, but only for hedging risks in connection with underlying transactions and associated financing operations.

The Group's sound financial profile was one of several factors that led the rating agency Moody's Deutschland GmbH, Frankfurt am Main, Germany, to confirm its Freudenberg SE's A3 rating with a "stable" outlook in July 2017. This gives Freudenberg very good creditworthiness at investment grade level.

## Risks from technological progress and third-party innovations

As a highly diversified technology group, Freudenberg is active in numerous product and market segments, some of which differ considerably. Moreover, Freudenberg conducts its entrepreneurial activities on the basis of different business models. Consequently, Freudenberg operates in a constantly changing environment and is exposed to technological progress and a wide range of innovations. In specific terms, this means that Freudenberg comes up against new products, technologies or organizational structures.

Freudenberg uses various measures, in particular inhouse research and development and innovation, to manage the consequences of these customary risks. The most important pillar and key driver of innovation at Freudenberg is to be found in the Business Groups, whose research and development activities are closely geared to their customers. In addition, the Freudenberg Group acquires external companies or business units to add to the Group's technology and product portfolio and to enhance competitiveness through innovation.

With the Freudenberg Technology Innovation Corporate Function, Freudenberg has created an organizational unit that bundles the Group's technical knowledge — in particular through cross-sectional technologies. At 4.6 percent, Freudenberg invests a substantial share of sales in research and development. This has led to an increase in the share of sales attributable to new products to 33.0 percent.

#### **Contractual risks**

Freudenberg enters into contracts with third parties on a daily basis and makes continuous adjustments to its portfolio through acquisitions and disinvestments of companies and business units. During the course of these activities, obligations are assumed or commitments undertaken that may change as time goes by, must be complied with over a longer period of time, or may prove impossible to meet as a consequence of unforeseen events. These activities could in retrospect prove disadvantageous and above all could negatively impact the earnings situation of the Group to a limited extent. Freudenberg has several measures in place to deal with these significant risks, such as comprehensive upfront analyses and checks with regard to acquisitions supported by external experts and consultants. This is complemented by interdisciplinary and supraregional risk management resources established at both Business Group and holding company level, as well as the continuous improvement and further development of systematic contract management and contract monitoring in line with business demands.

## Occupational health and safety and enviornmental risks

Freudenberg has production sites in some 60 countries, some of which operate under very different conditions. There are operative risks with regard to production processes in particular in terms of workflows, production equipment and the processing of hazardous materials. Freudenberg trains employees to comply with safety

regulations and in the use of protective equipment, and fulfills all relevant safety requirements and guidelines.

Freudenberg locations are continually exposed to natural hazards as a result of the presence in various regions and climate zones. In spite of the usual preventive measures, earthquakes, floods, forest fires, mudslides and heavy snowfall can occasionally negatively impact business operations of the units concerned. Natural hazards are taken into consideration during the acquisition process.

Group-wide standards in the fields of occupational health and safety, the environment, and fire protection define and implement the minimum requirements and guidelines for the Business Groups. Internal and external audit processes monitor the implementation of programs to continuously minimize risks in these fields at the Business Groups. The audit findings are systematically evaluated and measures implemented throughout the Group. Despite all of these preventive measures, significant occupational health and safety and environmental risks cannot be entirely ruled out.

In the case of hazardous substances, for example, efforts are made to identify alternatives or substitute substances before a statutory provision comes into effect with a view to minimizing potential and customary risks arising in connection with such hazardous substances. This forestalls the effects on production of a possible ban on a given substance. In addition, many product developments are subject to a stage gate process which among other things ensures that new products have a better environmental performance than their predecessors.

Since it was launched in 2002, the worldwide "We all take care" initiative motivates Freudenberg employees to make their work and their workplaces safer, healthier and more environmentally friendly as well as taking responsibility for society. The initiative is supported by the Group's top management and senior executives in the Business Groups, and the best projects are honored each year.

## Internal control and risk management system (referred to the Group financial reporting process)

The Group internal control and risk management system for the financial reporting process at Freudenberg is tasked with ensuring the functionality, compliance and effectiveness of financial reporting in the Group. The internal control system includes measures intended to ensure the complete, accurate and timely transmission and presentation of information of relevance for the preparation of the consolidated financial statements and the consolidated management report of the Group.

The consolidated financial statements and the consolidated management report of the Group are prepared centrally. The minimum requirements regarding reporting content submitted by the companies, are defined and controlled centrally, and the time frame and process requirements are monitored. The standards for IFRS reporting as regularly updated form the basis for compiling the IFRS reporting packages of the parent company and of all domestic and foreign subsidiaries included in the consolidation. There are binding instructions for Freudenberg's internal coordination and other preparatory work for the financial statements.

Freudenberg uses a standard software tool for the Group financial reporting process. This tool is used throughout the company worldwide and clearly defines user rights observing the principle of the separation of functions. The system covers both reporting by Freudenberg companies and the data for the consolidated financial statements. Additional controls are implemented in the consolidation process.

The consolidation process is also supported by a soft-ware tool for the automatic reconciliation of balances throughout the Group. The individual companies have a local internal control system which is the responsibility of the respective Business Group and which must comply with uniform minimum requirements applicable throughout the Group.

Corporate Controlling & Accounting organizes seminars for employees involved in this process in the event of important changes in financial reporting procedures and IT applications, thereby guaranteeing a consistently high standard of reporting. Actuarial reports and evaluations are compiled by specialist service providers.

There is a clear demarcation of tasks between Corporate Controlling & Accounting and the companies. The segregation of functions and the dual control principle are systematically applied. It is standard procedure for the Group auditor and the auditors of the consolidated companies to review the functionality and compliance of the Group's reporting processes. Suggestions for improvements are regularly discussed and optimized. In addition, the functionality and compliance of processes of relevance to financial reporting are reviewed regularly under an internal auditing process. The com-

plete package of processes, systems and controls adequately ensures that the Group's reporting process is in accordance with IFRS and other regulations and laws of relevance to financial reporting and is reliable.

## Overall assessment of the opportunities and risks

Freudenberg has an in-depth understanding of the short- and long-term opportunities necessary for the further development of existing business areas and the development of new activities to secure the future of the Group, and actively pursues these opportunities.

In our opinion, based on the probability of occurrence and potential impact of the risks described above, they do not individually or cumulatively present a risk to the continued existence of Freudenberg.

#### REPORT ON EXPECTED DEVELOPMENTS

We expect a generally stable macroeconomic environment in the 2018 financial year.1 While global economic growth in 2018 is likely to be slightly higher than 2017, this is counterbalanced by the persistently challenging geopolitical situation in various regions of eastern Europe, Middle East and South America, slower economic growth in China as well as rising raw material prices and higher exchange rate risks. In addition, new technologies such as electro-mobility and autonomous driving in the automotive sector or cross-sectoral megatrends such as digitalization, connectivity and sustainability call for innovative solutions in a challenging market environment where customer requirements are constantly changing. In light of this, we expect overall growth of 1.0 to 3.0 percent for the markets relevant to the Group.

With regard to individual developments on our regional core markets, we expect the positive growth trend in Germany to continue in 2018 with economic growth of 2.3 percent. This is approximately in line with our growth forecasts for the eurozone, which remains the Group's largest sales region. This development will be supported among other things by the continued expansionary monetary policy of the European Central Bank.

We anticipate economic growth of approximately 2.7 percent in the USA in 2018 on the back of rising consumer spending as well as lower unemployment and rising incomes, and the expected positive effects of the enacted U.S. tax reform. However, there is evidence of a slight decrease in sales of passenger cars and light-duty trucks in the NAFTA region.

In contrast, we anticipate strong differences in growth rates for the emerging economies. China remains one of the most important growth regions for Freudenberg. Here, we expect growth to be approximately on a par with the previous year's level of 6.5 percent, buoyed by numerous state infrastructure programs. However, from a long-term perspective, the high levels of debt

and existing overcapacities could have a negative impact on growth. We forecast economic growth of approximately 7.0 to 8.0 percent for India, where in particular the tax reforms which came into effect mid-2017 reduced existing planning risks.

Brazil is benefitting from the ongoing recovery in raw material prices. Following the recession years of 2015 and 2016, we expect to see growth of 2.6 percent in 2018 on the back of rising exports and falling inflation. This development will be supported by the expansionary monetary policy of Brazil's central bank.

We expect economic growth in Russia to be of the order of 1.7 percent. This improvement is attributable to the stabilization of oil prices as well as a supportive monetary policy and low inflation rates that soften the effects of the international sanctions resulting from the Ukraine conflict.

Developments in the oil and gas industry in 2018 will be cautiously positive as a result of the stabilization of oil prices and the general trend towards higher raw material prices. We do, however, anticipate higher exchange rate risks which could negatively impact developments. Overall, we expect economic developments on a par with the previous year.

Despite the growing complexity of the environment in which we operate and constantly changing customer requirements, we expect the Group and almost all its Business Groups to record growth in line with the relevant markets in the 2018 financial year. The Group will benefit in particular from the opportunities arising from the economic upturn in the various regions.

For **Freudenberg Sealing Technologies** the predominant themes in the 2018 financial year will be the general trend towards digitalization and electro-mobility. The Business Group will continue its focused specialization in the automotive and industrial sectors and

<sup>&</sup>lt;sup>1</sup> Sources: in this chapter, all figures relating to economic developments are based on data from Consensus Economics, the European Commission, the International Monetary Fund, and the market research and consulting company Schlegel und Partner.

proceed with its drive to expand the relevant product portfolio. The Business Group expects business development to be stable at the prior-year level.

Freudenberg Oil & Gas Technologies expects economic developments in general on a par with the previous year, mainly as a result of the stabilization of oil prices and the associated investments in the oil and gas industry. Productivity increases as a result of the current restructuring measures will have a positive impact on forecast developments.

**EagleBurgmann** expects to see a slightly positive trend in business development in 2018, with growth in particular in the Japan, Asia/Pacific and EMEA regions. The Business Group will continue with its cost and liquidity management aimed at increasing productivity.

**Freudenberg Medical** expects continued higher than market growth, driven above all by the integration of newly-acquired businesses. To support this trend, the Business Group will continue to invest in proprietary know-how and develop a broad range of medical applications to market maturity.

**Vibracoustic** expects a slightly positive trend in business in 2018, primarily driven by above-market growth in the Chassis Division. The Business Group also expects a generally stable trend in the Powertrain Division. Vibracoustic will focus in particular on further expanding its activities in the electro-mobility sector in the coming financial year.

Freudenberg Performance Materials will make electromobility a clear priority of its activities in 2018. By focusing on this, in combination with an innovative product portfolio and continued investments in new products, applications and technologies, the Business Group expects a slightly positive trend in business in 2018.

**Freudenberg Filtration Technologies** also anticipates slight growth for the coming year driven by a focus on automotive filters and industrial filtration and the associated increases in productivity.

The **Japan Vilene Company** Business Group expects business to improve in 2018, driven in particular by the ongoing optimization of the product portfolio and the further progress in integration in the Group. However, there is still a moderate degree of uncertainty, above all in the core markets of Japan and the USA.

Freudenberg Home and Cleaning Solutions expects business development in 2018 to be positive, among other things on the back of the integration of the Playtex household glove business in the USA which enables the Business Group to respond to the challenges in the North America and Asia/Pacific regions in particular.

**Freudenberg Chemical Specialities** expects business development in 2018 to be on a par with the prior-year level. Expectations for the individual regions are in line with the differing economic environments.

**Freudenberg IT** expects to see further slightly positive development in business in all regions in the 2018 financial year. In light of the global digitalization trend, the Business Group plans to further expand its market position in America, Europe and Asia.

As a diversified group Freudenberg is active in numerous regions of the world and is characterized by a broad portfolio of products and companies offering solutions at the highest technological level for a wide variety of industrial sectors and customers. Our aim for 2018 is to again harness the resulting growth potential by systematically implementing our long-term strategy for the benefit of our customers and society. To that end, we are focusing on expanding our program to enhance operational efficiency as well as intensifying our efforts to leverage synergy effects

through the swift integration of newly-acquired business alongside a clear focus on rapid and flexible realignment to changing customer and market requirements. A solid financing structure, responsible leadership, and diversity-oriented talent management remain the pivotal factors for success.

In 2018, we will continue to drive forward with our projects in the fields of sustainability, non-financial key performance indicators, and our responsibility for society. As a responsible, innovative technology group, Freudenberg will once again implement numerous measures in environmental protection, occupational health and safety. As in the previous year, special attention will again be devoted to occupational safety in 2018. We therefore expect to see a further reduction in the LDIFR (Lost Day Incident Frequency Rate — all incidents at work involving at least one day's absence per million working hours) for the 2018 financial year.

The analysis of present risks concludes there is no threat to the continued existence of Freudenberg. There were no major changes in the overall risk situation compared with the previous year.

Based on the developments and challenges described above we expect a slight rise in Group sales in the 2018 financial year compared with the previous year. The operating result is expected to be on a par with the previous year. All Business Areas are likely to contribute to this performance. On the basis of this forecast we expect a slight decrease in the return on sales in 2018.

Weinheim, March 23, 2018

The Board of Management

#### FREUDENBERG SE (HGB)

Freudenberg SE is a wholly-owned subsidiary of Freudenberg & Co. Kommanditgesellschaft, Weinheim, and the parent company with responsibility for the operations of the Freudenberg Group.

The net assets, financial position and results of operations of Freudenberg SE are characterized by its holding function. The company holds interests in affiliated companies and it is the profit from these investments that dominates the earnings situation of Freudenberg SE.

The annual financial statements of Freudenberg SE are set up in accordance with the Handelsgesetzbuch (HGB – German Commercial Code) and the Aktiengesetz (AktG – German Stock Corporation Act).

#### **EARNINGS SITUATION**

At €570.2 million (previous year: €461.6 million), the profit of Freudenberg SE for the year was about 24 percent higher than the figure for the previous year. This rise was chiefly due to the investment result, which improved by €119.0 million (previous year €82.9 million) compared with the previous year.

[€ million]	2016	2017
Sales	17.3	16.6
Investment result	588.3	707.3
Other operating income	18.7	6.1
Material expenses	-6.0	-5.2
Personnel expenses	-18.1	-10.1
Other operating expenses	-87.4	-92.9
Financial result	-24.6	-30.5
Profit before taxes	488.2	591.3
Income taxes	-26.6	-21.1
Profit for the year	461.6	570.2

The **sales** of Freudenberg SE largely result from the charging of services and from royalties for the Freudenberg global brand amounting to €10.7 million (previous year: €10.3 million).

The **investment result** rose from €588.3 million to €707.3 million. Investment income mainly increased as a result of a dividend payment and the transfer for the first time of the profit reported by the Vibracoustic Group.

Other operating income fell from €18.7 million to €6.1 million. This was chiefly the result of the income from the disposal of financial assets reported in the previous year.

Material expenses decreased from €6.0 million to €5.2 million and chiefly concern services purchased.

The reduction in **personnel expenses** by €8.0 million to €10.1 million (previous year: €18.1 million) is the result, inter alia, of the formation of a provision for bonuses in the previous year and to lower transfers of provisions for pensions.

Other operating expenses rose from €87.4 million to €92.9 million. This increase was chiefly due to higher auditing and consultancy expenses.

The **financial result**, which deteriorated by €5.9 million, was negatively affected chiefly by higher interest expenses for pensions.

Income taxes fell by €5.5 million from €-26.6 million to €-21.1 million, chiefly as a result of tax refunds from pre-vious years.

## ASSETS, LIABILITIES AND FINANCIAL POSITION

[€ million]	Dec. 31, 2016	Dec. 31, 2017
Intangible assets	0.0	8.1
Tangible assets	1.1	1.0
Financial assets	2,361.2	2,389.5
Receivables and other assets	1,409.9	1,817.0
Cash at bank and in hand	16.8	57.3
Total assets	3,789.0	4,272.9
Equity	2,304.7	2,760.5
Provisions	138.6	143.2
Liabilities	1,345.7	1,369.2
Total equity and liabilities	3,789.0	4,272.9

The assets of Freudenberg SE as the holding company chiefly consist of shares and participations in companies and amounts receivable from these companies.

As at the date of the statement of financial position, **financial assets** had risen by €28.3 million to €2,389.5 million (previous year: €2,361.2 million) as a result of various capital increases and asset transfers.

Receivables and other assets mainly include amounts receivable from affiliates. As at the date of the statement of financial position, these had risen by €414.6 million to €1,780.9 million (previous year: €1,366.3 million). This is chiefly the result of higher cash pool receivables from Externa Handels- und Beteiligungsgesell-schaft mit beschränkter Haftung with headquarters in Weinheim, Germany.

**Equity** increased to €2,760.5 million (previous year: €2,304.7 million). The profit carried forward from the previous year rose by €347.2 million from €1,097.9 million to €1,445.1 million. The profit for the year rose from €461.6 million to €570.2 million, partly compensated for by the payment of dividends in the amount of €114.4 million (previous year: €90.2 million).

Provisions increased slightly by €4.6 million from €138.6 million to €143.2 million and chiefly include provisions for pensions.

**Liabilities** rose by €23.5 million from €1,345.7 million to €1,369.2 million as a result of higher liabilities to shareholders.

#### **SUMMARY STATEMENT**

Against the backdrop of our sound situation with respect to net assets and financial position and the high earnings of our affiliates, we assess the general economic situation of Freudenberg SE as highly positive. This statement is not affected by the events reported in the chapter "Report on Events After the Date of the Statement of Financial Position".

#### REPORT ON EXPECTED DEVELOPMENTS

As the parent company of the Freudenberg Group responsible for business operations but without its own business operations, Freudenberg SE mainly receives income from its affiliates. As a general principle, expectations concerning business developments within the Freudenberg Group therefore also have an impact on the earnings of Freudenberg SE. For this reason, the assumptions and statements made in the report on expected developments for Freudenberg are equally relevant to Freudenberg SE.

#### **NET RETAINED PROFIT AND DIVIDEND**

In December 2017, the Shareholders' Meeting resolved, as proposed by the Supervisory Board and the Board of Management, to pay a dividend of €114.4 million (previous year: €90.2 million) to the sole shareholder Freudenberg & Co. Kommanditgesellschaft in 2017 from the net retained profit as at December 31, 2016, which amounted to €1,559.5 million.

The Board of Management proposes that the profit for the 2017 financial year, amounting to €570.2 million (previous year: €461.6 million) should be carried forward to new account.

## SUMMARY CONCLUDING STATEMENT OF DEPENDENT COMPANY REPORT OF FREUDENBERG SE

"We hereby declare in accordance with Sec. 312, Para 3, AktG (German Stock Corporation Act) that, on the basis of the circumstances of which we were aware at the time when transactions with affiliated companies were implemented or acts or forbearances were taken, our company received consideration comparable with that obtainable from a non-affiliated company and did not suffer any disadvantage as a result of such acts or forbearances."

## **CONSOLIDATED FINANCIAL STATEMENTS**

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# CONSOLIDATED STATEMENT OF FINANCIAL POSITION

[€ million]	Note	Dec. 31, 2016	Dec. 31, 2017
ASSETS			
Intangible assets	(1)	2,635.1	2,572.0
Tangible assets	(2)	2,363.9	2,359.1
Investment properties	(3)	13.8	12.7
Investments in joint ventures	(4)	149.8	149.5
Investments in associated companies	(5)	900.5	903.4
Other financial assets		128.1	122.5
Financial assets		1,178.4	1,175.4
Other non-current assets	(7)	50.9	55.2
Deferred taxes	(25)	228.7	225.0
Non-current assets		6,470.8	6,399.4
Inventories	(6)	991.4	1,021.9
Trade receivables		1,500.9	1,509.1
Other current assets		211.5	177.4
Current receivables	(7)	1,712.4	1,686.5
Current tax assets		88.2	87.3
Securities and cash at bank and in hand	(8)	960.7	998.8
Current assets		3,752.7	3,794.5
		10,223.5	10,193.9
EQUITY AND LIABILITIES			
Subscribed capital		450.0	450.0
Capital reserves		50.2	50.2
Retained earnings		3,735.8	4,008.9
Equity without non-controlling interests		4,236.0	4,509.1
Non-controlling interests		367.3	325.9
Equity	(9)	4,603.3	4,835.0
Provisions for pensions and similar obligations	(10)	758.1	735.9
Other long-term provisions	(11)	125.6	142.6
Long-term provisions		883.7	878.5
Financial debt		1,151.6	932.3
Other non-current liabilities		370.8	280.7
Liabilities	(12)	1,522.4	1,213.0
Deferred taxes	(25)	421.5	357.1
Non-current liabilities		2,827.6	2,448.6
Other current provisions	(11)	637.9	631.5
Current tax liabilities		94.1	94.6
Financial debt		638.9	859.8
Trade payables		907.2	882.9
Other current liabilities		514.5	441.5
Liabilities	(12)	2,060.6	2,184.2
Current liabilities		2,792.6	2,910.3
		10,223.5	10,193.9

# CONSOLIDATED STATEMENT OF PROFIT OR LOSS

[€ million]	Note	2016	2017
Sales	(13)	7,900.1	9,345.6
Cost of sales	(14)	-5,085.2	-6,171.1
Gross profit		2,814.9	3,174.5
Selling expenses	(15)	-1,298.1	-1,365.8
Administrative expenses	(16)	-600.3	-622.6
Research and development expenses	(17)	-330.1	-414.2
Other income	(18)	742.7	103.3
Other expenses	(19)	-137.9	-99.1
Income from investments in joint ventures	(4), (20)	54.2	21.5
Profit from operations		1,245.4	797.6
Income from investments in associated companies	(5), (21)	47.5	79.4
Other investment result	(22)	-0.7	36.8
Other interest and similar income	(23)	10.7	13.3
Interest and similar expenses	(24)	-37.8	-44.0
Financial result		19.7	85.5
Profit before income taxes		1,265.1	883.1
Income taxes	(25)	-178.2	-183.0
Consolidated profit		1,086.9	700.1
Of which: attributable to Freudenberg		1,041.7	651.9
Of which: attributable to non-controlling interests	(26)	45.2	48.2

# CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

[€ million]	Note	2016	2017
Consolidated profit		1,086.9	700.1
Other comprehensive income:			
Remeasurement of defined benefit plans	(10)	-52.1	12.4
Income tax relating to items that will not be reclassified to profit or loss	(9)	10.9	-23.9
Share in other comprehensive income of associated companies	(5)	-18.8	-12.3
Items that will not be reclassified to profit or loss		-60.0	-23.8
Exchange rate differences	(9)	74.8	-329.6
Changes in value of securities	(9)	-15.5	14.3
Changes in value of derivative financial instruments	(9)	-0.1	-0.6
Miscellaneous comprehensive income		-28.8	-41.2
Income tax relating to items that will be reclassified subsequently to profit or loss when specific conditions are met	(9)	0.3	19.1
Share in other comprehensive income of joint ventures	(4)	-1.0	-0.5
Share in other comprehensive income of associated companies	(5)	-23.5	47.2
Items that will be reclassified subsequently to profit or loss when specific conditions are met		6.2	-291.3
Other comprehensive income for the year		-53.8	-315.1
Total comprehensive income for the year		1,033.1	385.0
Of which: attributable to Freudenberg		1,005.2	387.5
Of which: attributable to non-controlling interests		27.9	-2.5

# CONSOLIDATED STATEMENT OF CASH FLOWS

[€ million]	Note	2016	2017
Profit before taxes		1,265.1	883.1
Depreciation, amortization and impairment losses on intangible assets, tangible assets, investment properties and financial assets less write-ups		454.0	479.5
Income from investments and interest income		-74.9	-107.5
Income taxes paid		-216.0	-248.2
Profit or loss on disposal of intangible assets, tangible assets, investment properties and financial assets		-649.6	-11.0
Dividends received		50.5	60.6
Other expenditure and income not affecting payments		11.2	-0.9
Changes in inventories, trade receivables and other assets		-22.6	-191.8
Changes in trade payables and other liabilities		83.3	62.5
Changes in provisions		72.5	31.5
Interest paid		-37.8	-39.5
Interest received		9.4	10.7
Cash flow from operating activities	(27)	945.1	929.0
Cash inflow from disposals of intangible assets, tangible assets and investment properties		32.3	32.7
Cash outflow from acquisitions in intangible assets, tangible assets and investment properties		-406.8	-501.5
Cash inflow from disposals of financial assets		1.9	25.5
Cash outflows from acquisitions of financial assets		-4.6	-11.5
Cash inflow in connection with the disposal of consolidated companies or other business units less cash disposed of		89.1	12.3
Cash outflow in connection with the acquisition of consolidated companies or other business units less cash acquired		-1,222.3	-169.6
Cash flow from investing activities		-1,510.4	-612.1
Payments to shareholders/non-controlling interests	(28)	-129.3	-153.1
Cash inflow from the take-up of financial debts		778.4	167.7
Cash outflow from the repayment of financial debts		-181.3	-258.0
Cash inflow from disposals of loans and securities held as non-current assets		4.3	2.5
Cash outflow from acquisitions of loans and securities held as non-current assets		-0.8	-4.1
Cash flow from financing activities		471.3	-245.0
Changes in cash and cash equivalents with effect on payments	(29)	-94.0	71.9
Changes in cash and cash equivalents from changes in consolidated group		0.0	0.0
Changes in cash and cash equivalents from exchange rate differences		-1.0	-33.8
Cash and cash equivalents at beginning of year		1,055.7	960.7
Cash and cash equivalents at end of year		960.7	998.8

# CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

[€ million]	Subscribed capital	Capital reserves	Currency translation	Remeasure ment of defined benefit obligations	Fair value measureme nt of securities	Financial investments accounted for using the equity method
Status Jan. 1, 2016	450.0	50.2	95.5	-339.1	45.9	118.5
Consolidated profit						
Appropriation of profit						
Other comprehensive income			43.9	-62.6	-15.6	-35.3
Status Dec. 31, 2016	450.0	50.2	139.4	-401.7	30.3	83.2
Status Jan. 1, 2017	450.0	50.2	139.4	-401.7	30.3	83.2
Consolidated profit						
Appropriation of profit						
Other comprehensive income			-294.7	83.2	13.3	40.1
Status Dec. 31, 2017	450.0	50.2	-155.3	-318.5	43.6	123.3

[€ million]	Tax effects recognized in equity	Other revenue reserves	Total revenue reserves	Equity without non- controlling interests	Non- controlling interests	Equity
Status Jan. 1, 2016	64.8	2,835.2	2,820.8	3,321.0	378.6	3,699.6
Consolidated profit		1,041.7	1,041.7	1,041.7	45.2	1,086.9
Appropriation of profit		-90.2	-90.2	-90.2	-39.2	-129.4
Other comprehensive income	20.5	12.6	-36.5	-36.5	-17.3	-53.8
Status Dec. 31, 2016	85.3	3,799.3	3,735.8	4,236.0	367.3	4,603.3
Status Jan. 1, 2017	85.3	3,799.3	3,735.8	4,236.0	367.3	4,603.3
Consolidated profit		651.9	651.9	651.9	48.2	700.1
Appropriation of profit		-114.4	-114.4	-114.4	-38.9	-153.3
Other comprehensive income	-2.5	-103.8	-264.4	-264.4	-50.7	-315.1
Status Dec. 31, 2017	82.8	4,233.0	4,008.9	4,509.1	325.9	4,835.0

See also the explanatory remarks on equity in note (9) to the Consolidated Financial Statement.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

#### General

Freudenberg is an international industrial group mainly active as a supplier to the automotive, mechanical engineering, oil and gas industries as well as the textile and apparel industries. The portfolio also includes medical technology and consumer goods.

The consolidated financial statements of Freudenberg SE, Weinheim, Germany, for 2017 have been drawn up in accordance with the International Financial Reporting Standards (IFRS) as they are to be applied in the European Union (EU) as of the date of the statement of financial position (December 31, 2017).

Comparative figures for the previous financial year were based on the same principles.

Freudenberg SE has availed itself of the right as laid down in Sec. 315a (3) HGB (Handelsgesetzbuch, "German Commercial Code") to set up its consolidated financial statements in accordance with IFRS.

The Group currency is the euro. All amounts are indicated in million euros unless otherwise stated.

In the 2017 financial year, the application of the following amended and new standards was binding for the first time:

Standards/amendments	Title
IAS 7	Amendments to IAS 7 – Disclosure Initiative
IAS 12	Amendments to IAS 12 – Recognition of Deferred Tax Assets for Unrealised Losses
Various standards	Annual Improvements to IFRSs 2014-2016 Cycle (amendments to IFRS 12)

The first-time application of the amendments to these standards had no effect or no material effect on the net assets, financial position and results of operations of Freudenberg. The reconciliation of financial debt required in accordance with the amendments to IAS 7 – *Disclosure Initiative* is given in note (29).

The International Accounting Standards Board (IASB) and the IFRS Interpretations Committee have published additional standards, interpretations and amendments the application of which was not yet binding for the 2017 financial year. The application of these standards, interpretations and amendments is subject to endorsement by the EU which, in some cases, is still pending.

Standards/I	nterpretations/amendments	Application binding from <sup>1</sup>	Endorsed by EU	Probable impact
IFRS 2	Amendments to IFRS 2 — Classification and Measurement of Share-based Payment Transactions	January 1, 2018	No	No material impact
IFRS 4	Amendments to IFRS 4 – Applying IFRS 9 Financial Instruments with IFRS 4 Insurance Contracts	January 1, 2018	Yes	No material impact
IFRS 9	Financial Instruments	January 1, 2018	Yes	See information provided below
IFRS 9	Amendments to IFRS 9 — Prepayment Features with Negative Compensation	January 1, 2019	No	No material impact
IFRS 15	Revenue from Contracts with Customers	January 1, 2018	Yes	See information provided below
IFRS 15	Clarifications to IFRS 15 - Revenue from Contracts with Customers	January 1, 2018	Yes	No material impact
IFRS 16	Leases	January 1, 2019	Yes	See information provided below
IFRS 17	Insurance Contracts	January 1, 2021	No	No material impact
IAS 19	Amendments to IAS 19 – Plan Amendment, Curtailment or Settlement	January 1, 2019	No	No material impact
IAS 28	Long-term Interests in Associates and Joint Ventures	January 1, 2019	No	No material impact
IAS 40	Amendments to IAS 40 – <i>Investment Property</i>	January 1, 2018	No	No material impact
IFRIC 22	Foreign Currency Transactions and Advance Consideration	January 1, 2018	No	No material impact
IFRIC 23	Uncertainty over Income Tax Treatments	January 1, 2019	No	No material impact
Various standards	Annual Improvements to IFRSs 2014-2016 Cycle (amendments to IFRS 1 and IAS 28)	January 1, 2018	Yes	No material impact
Various standards	Annual Improvements to IFRSs 2015-2017 Cycle	January 1, 2019	No	No material impact

 $<sup>^{\</sup>rm 1}\,\mbox{From this date}$  or from reporting periods beginning after this date.

In July 2014, the IASB published IFRS 9 — Financial Instruments. The standard was transposed into EU law on November 22, 2016. The standard states standard requirements for the classification and measurement of financial assets. It also provides for a new impairment model based on expected credit losses and contains new provisions on the application of hedge accounting. Freudenberg will apply the standard for the first time to the financial year commencing on January 1, 2018 and will dispense with the restatement of the comparison period on the basis of the transitional provisions. The new impairment model will only result in non-material changes to the amount of impairments

to trade receivables. As credit losses expected in the future must be taken into consideration, impairments will, in some cases, be anticipated at an earlier date. It is expected that the extent of changes in the areas of classification and measurement of financial assets, as well as hedge accounting, will not be material.

In May 2014, the ISAB published IFRS 15 - Revenue from Contracts with Customers. This standard was transposed into EU law on April 12, 2016. Under this new standard, the recognition of revenue is to reflect the consideration probably to be received by the company in exchange for the goods or services that will be trans-

ferred to the customer. The standard also contains new provisions concerning the timing of revenue recognition. Freudenberg will apply the standard for the first time to the financial year commencing on January 1, 2018 and will dispense with the restatement of the comparison period on the basis of the transitional provisions. The first-time application of the new provisions will only result in a slight increase of less than half a percent in equity at the time of the change. The new definition of the transaction price will result in a reduction of less than one percent in the sales reported by Freudenberg. The new criteria for the transfer of control will result in changes in the timing of revenue recognition which will have an effect especially in connection with customer-specific tools and development contracts. This will also lead to a reduction in the statement of financial position total as a result of the derecognition of tool development costs previously capitalized as assets and subsidies from customers previously recognized as liabilities. Revenue recognition over the course of time in the case of customer-specific production contracts will also lead to revenue recognition at an earlier time. There will be further changes as a result of the introduction of separate statement of financial position items for contract assets and contract liabilities and extended quantitative and qualitative disclosures in the notes to the financial statements. Studies concerning the implementation of these requirements have shown that the overall effects on the consolidated financial statements will not be material.

The IASB published IFRS 16 – Leases. In January 2016 and the standard was transposed into EU law on October 31, 2017. The introduction of a uniform model for the recognition of leased assets by the lessee will lead to the mandatory recognition of a right-of-use asset and a corresponding lease liability as a general principle for all lease contracts with a term of more than 12 months. Freudenberg will apply the new standard for the first time to the financial year commencing on January 1, 2019 on the basis of the modified retrospective method and will dispense with the restatement of the comparison period in accordance with the transitional provisions. The first-time application of the new provisions will probably not result in a reduction in equity at the time of the changeover. The recognition of leases previously not recognized will probably result in an increase in the statement of financial position total by about 4 percent and will chiefly concern real property leased by Freudenberg. In the statement of profit or loss, only insignificant effects on the profit from operations and the consolidated profit are expected. In future, lease payments are to be divided into a principal portion and an interest portion and will no longer be deducted in full from the cash flow from operating activities, which will, as a result, be improved. On the other hand, cash flow from financing activities will be reduced by the principal portion of the payments.

#### **Consolidated group**

Apart from Freudenberg SE, 64 German (previous year: 63) and 363 foreign (previous year: 363) **affiliated companies** with respect to which Freudenberg SE has the power to direct the relevant activities of the company, the right to variable returns from the company and the ability to affect such variable returns, are fully consolidated.

Freudenberg operates a joint venture in the field of mechanical seals within the EagleBurgmann Business Group together with the partner Eagle Industry Co., Ltd., Tokyo, Japan. Freudenberg holds a 25-percent stake in EagleBurgmann Japan Co., Ltd., Tokyo, Japan. The partner also holds a 25-percent indirect stake in EagleBurgmann Germany GmbH & Co. KG, Wolfratshausen, Germany. According to the joint venture agreement between the partners, Freudenberg exercises control over affiliated companies of the EagleBurgmann Group in which Freudenberg holds less than half of the voting rights of the other company; such affiliated companies are therefore fully consolidated.

No German (previous year: 0) and 14 foreign (previous year:14) **joint ventures** are included in the consolidated financial statements. These legally independent companies are managed jointly with the partner company in each case. Both parties hold rights to the net assets of the companies. The joint ventures are consolidated by the equity method.

In addition, 9 foreign (previous year: 11) **associated companies** are included in the consolidated financial statements. Freudenberg does not control these companies but only exercises a significant influence. These companies are consolidated by the equity method.

All affiliated companies, joint ventures and associated companies are listed under "Shareholdings".

In the year under review, 12 companies were included in the consolidated financial statements as fully consolidated affiliated companies for the first time. 11 companies which had previously been fully consolidated were no longer included as fully consolidated affiliated companies due to sale, liquidation or merger. The timing of the initial consolidation was determined on the basis of the date when Freudenberg SE gained control. In the event of loss of control, deconsolidation is effected. The company EagleBurgmann Venezuela C.A., Caracas, Venezuela, which had previously been fully consolidated, was included in the consolidated financial statements as an associated company for the first time with effect from the beginning of the financial year. In view of the currency restrictions in force in Venezuela, it was decided that here was no possibility of obtaining variable returns from the company and that a loss of control had therefore taken place.

#### **Acquisitions and disposals**

In the 2017 financial year, Freudenberg did not engage in any corporate acquisition or disposal transactions which were material. The consideration transferred for the acquisition of shares totaled €135.1 million and was transferred entirely with an effect on payments. The purchase price allocation resulted in a total goodwill which was not deductible for tax purposes of €61.4 million. Since the acquisition date, the newly acquired companies have recorded sales of €55.3 million and contributed €2.1 million to consolidated profit. If the acquisitions had already taken place as of January 1, 2017, total sales would have been €18.7 million higher and consolidated profit would have been €3.0 million higher.

The transaction costs arising in connection with the company acquisitions were, in each case, not significant and were recognized with effect on net income. As at the acquisition date, there was no significant difference in each case between the gross amount of the consideration payable and the fair values.

The fair values of the main asset and liability items of the companies acquired as at the acquisition dates were determined mainly on the basis of level 3 input factors. The cumulative values were as follows:

[€ million]	Fair values
Intangible assets	102.4
Tangible assets	18.9
Other non-current assets	7.5
Inventories	6.4
Trade receivables	14.1
Other current assets	3.3
Cash acquired	8.2
Assets	160.8
Non-current liabilities	7.5
Current liabilities	37.6
Liabilities	45.1
Net assets	115.7

Intangible assets identified in connection with purchase price allocations mainly concern customer lists. The fair values of the customer lists identified were measured by the residual value method on the basis of corporate planning with a useful life of 5 to 15 years.

#### **Consolidation methods**

The consolidated financial statements are based on the annual accounts of Freudenberg SE and the consolidated companies according to IFRS. All the annual accounts concerned were drawn up as at December 31, 2017. In accordance with IFRS 10, the accounts of the individual companies to be included in the consolidated financial statements were drawn up applying uniform accounting and measurement methods.

The acquisition costs of the individual consolidated companies are set off against the pro-rata share in the fair value of the equity of the companies concerned as of the date of acquisition according to the purchase method. Identifiable acquired assets and liabilities are also included in the consolidated statement of financial position at their fair values as of the acquisition date. Any remaining differences are shown as goodwill.

Inter-company profits and losses, sales, expenses and income and all receivables and payables between consolidated companies are eliminated. Deferred taxes are set up on consolidation transactions affecting net income

Joint ventures and associated companies are consolidated by the equity method on the basis of financial statements drawn up in accordance with IFRS.

The differences arising from the acquisition of share-holdings in joint ventures and associated companies form part of the book value of the shareholding in the company concerned. Amortization is not recognized on goodwill in subsequent periods. An impairment test is carried out on the book value of the shareholding in the joint venture or associated company as a whole if there are indications that the carrying amount could be impaired.

#### **Accounting and measurement principles**

Acquired intangible assets are capitalized at acquisition cost and amortized on a systematic basis.

Amortization is based on the following useful lives:

Software	3 to 8 years
Patents and licenses	depending on contract term

Intangible assets with finite useful lives acquired in a business combination are amortized on a systematic basis over useful lives of up to 25 years.

An impairment test is carried out on goodwill at least once per year. For the impairment test, the good-will acquired is allocated to the groups of cash-generating units expected to benefit from the business combination. In line with internal management reporting, the groups of cash-generating units are represented by the Business Groups. An impairment loss is recognized if the carrying amount of the group of cash-generating units is higher than its recoverable amount. The recoverable amount is the higher of the fair value less costs of disposal and the value in use of the group of cash-generating units.

For the determination of the recoverable amount, the value in use of the group of cash-generating units concerned is determined by the discounted cash flow method on the basis of a detailed planning period of 5 years. The discount rates used for the determination of the value in use are based on the weighted average cost of capital (hereafter WACC) determined separately for each group of cash-generating units.

Impairments of capitalized goodwill are shown under other expenses in the consolidated statement of profit or loss. Reversals of impairments are not recognized with respect to goodwill for which impairments have been recognized. Impairment losses going beyond goodwill are recognized for individual assets of cash-generating units if the fair value less costs of disposal of such units or the value in use of such units has fallen below their carrying amount.

Provided that such assets meet the requirements of IAS 38, internally generated intangible assets are carried as assets at production cost and are amortized on a systematic basis over their useful lives, if their useful lives are finite

If the useful life of intangible assets is not considered to be finite, no amortization is effected. An impairment test is carried out on such assets annually. An intangible asset may be regarded as having an indefinite useful life when, based on an analysis of all of the relevant factors, there is no foreseeable limit to the period over which the asset is expected to generate net cash flows for the Group.

Expenditure in connection with development projects is capitalized as intangible assets if, in addition to meeting the criteria of IAS 38, a Group threshold is exceeded. Otherwise, development expenditure is shown as expenses. Capitalized development expenditure is amortized on a straight-line basis over the underlying contract term starting with the beginning of production of the product concerned. Amortization of capitalized development expenditure is normally recognized in research and development expenses.

Tangible assets are capitalized at acquisition or production cost. In the case of assets produced by Group companies, production cost also includes directly attributable cost as well as pro-rata overheads and depreciation.

Borrowing costs are capitalized as part of acquisition or production cost in the case of qualifying assets.

Expenditure for repairs and maintenance is generally shown as expenses. Such expenditure is only capitalized if future economic benefits in connection with such expenditure are probable and the acquisition or production cost can be reliably measured.

Taxable grants and tax-free investment subsidies, normally paid by public bodies, are set off against acquisition or production cost.

Movable non-current assets and industrial buildings are depreciated over their useful lives. This approach normally corresponds to straight-line depreciation.

Systematic depreciation is determined on the basis of the following useful lives:

Buildings	max. 50 years
Machinery and equipment	5 to 20 years
Other fixtures, fittings and office equipment	3 to 20 years

An impairment test on tangible and intangible assets assigned to cash-generating units is always carried out if circumstances or changed conditions indicate that the carrying amount of such cash-generating units may not be recovered. The composition of the cash-generating units is determined at the divisional or regional level as a function of the business model and differs between Business Groups. If the impairment of an asset reflected by a write-down in the past is reduced or eliminated, the impairment loss is reversed. The updated acquisition or production cost represents the upper limit of measurement in such cases.

In accordance with IAS 17, tangible assets leased under finance leases are recognized as assets and written off over their economic useful life if substantially all the risks and rewards associated with the ownership of the leased asset lie with the lessee. Such assets are carried at the fair value of the leased asset at the inception of the lease or, if lower, at the present value of the minimum lease payments. A liability of the same amount is also shown on the statement of financial position.

In the case of operating leases, lease payments are recognized as expenses.

Land and buildings held to earn rentals from third parties are dealt with as investment properties. Such properties are measured at acquisition cost. Investment properties are depreciated over their useful lives. This approach normally corresponds to straight-line depreciation. As a general principle, systematic depreciation is calculated on the basis of a maximum useful life of 50 years and effected on a straight-line basis. The fair value is determined by the discounted cash flow method.

Participations are shown at acquisition cost or, if lower, at fair value.

Investments in joint ventures and associated companies are shown at acquisition cost on first-time consolidation and subsequently adjusted for changes in the share of the shareholder in the net assets of the company concerned.

Long-term loans are discounted if the amount of such discount is significant.

Inventories are shown at acquisition or production cost or at net realizable value, where this is lower. Inventories of raw materials and consumables and merchandise are measured by the weighted average cost method. Production cost includes directly attributable costs as well as production and material overheads and depreciation.

Receivables and other assets are recognized at amortized cost. Impairments are recognized for individual risks identified which are not covered by credit insurance. Impairments are effected using a separate account if circumstances become apparent as a result of which the conclusion can be drawn that certain receivables are subject to risks in excess of the general credit risk. The amortized cost is approximately equivalent to the fair value of the assets concerned. Long-term receivables are discounted if the amount of such discount is significant.

Securities carried as non-current or current assets that are available for sale are recorded at fair value as of the statement of financial position date. Value changes are shown under equity without an effect on net income.

Cash at bank or in hand is shown at its nominal value. Cash held in foreign currencies is converted using the exchange rate as of the statement of financial position date.

Non-current assets and groups of assets held for sale are shown separately in the statement of financial position if they are available for immediate sale in their present condition and the sale of such assets is highly probable within the next 12 months. Such assets are shown at the lower of fair value less costs to sell and book value. Systematic depreciation is not recognized on such assets from the date of reclassification. Liabilities included in a disposal group are shown separately under liabilities.

The requirement for the reversal of the impairment of assets has been complied with both for non-current and for current assets. Unless individual standards call for a different measurement, the updated acquisition or production cost represents the upper limit of measurement in such cases.

Provisions for pensions and similar obligations are determined by the projected unit credit method using actuarial principles. Service cost and the net interest on the net defined benefit liability are recognized under personnel expenses with an impact on net income. Gains and losses from remeasurements of the net defined benefit liability are disclosed under other comprehensive income. Assets held to provide benefits for employees are measured at fair value.

Deferred taxes are calculated on temporary differences between the book values of assets and liabilities in the consolidated statement of financial position and their tax bases, taking into account the applicable national income tax rates valid on the date of realization and already in force on the statement of financial position date. In addition, deferred tax assets are recognized for tax losses carried forward if sufficient taxable income will be available in the future. Deferred tax assets and liabilities are only set off against each other in cases where the income taxes concerned are levied by the same tax authority and concern the same period. In the case of deferred tax assets which are not impaired following the offsetting, it is assumed that future taxable income will be sufficient to allow the realization of the deferred tax assets formed.

Other provisions allow for all recognizable risks and uncertain obligations towards third parties which will probably result in an outflow of resources which can be reliably estimated. Such provisions are recognized at their most probable settlement value and discounted if the amount of such discount is significant. Reimbursement rights in this connection are shown separately under other assets.

Liabilities are shown at their face value or at the repayment or settlement value, where this is higher. Non-current liabilities are discounted if the amount of such discount is significant.

Put options granted to the holders of non-controlling interests for the sale of their shares are recognized as forward purchases. The item recorded in equity for these shares is de-recognized and a liability measured at fair value is recognized. As at each statement of financial position date, the liability is remeasured. Any resulting changes in book value are recognized with an effect on net income.

Sales and other income are recognized at the fair value of the consideration received or receivable when the services are performed or the goods or products concerned are delivered.

The consolidated statement of cash flows is broken down into cash flows from operating, investing and financing activities. Effects arising from changes in the consolidated group and the effects of exchange rate differences have been eliminated from the consolidated statement of cash flows. The influence of these effects on cash and cash equivalents is indicated separately.

### The exercise of discretion and estimates in the application of accounting and measurement methods

In some cases, it is necessary to apply accounting methods based on estimates or the exercise of discretion in connection with the establishment of the consolidated financial statements. Normally, these methods include complex, subjective assessments and the use of uncertain assumptions which may be subject to change. It is therefore conceivable that actual amounts in the future and future events may deviate from the forecasts made as estimates for the same reporting period could have been made differently for reasons which are easy to understand. Such accounting methods based on estimates and the exercise of discretion may therefore have a material impact on the net assets, financial position and results of operations in the consolidated financial statements and may also change over the course of time. The estimates used for the establishment of the consolidated financial statements and the underlying assumptions are regularly reviewed and any changes are taken into consideration as soon as better information is available.

The composition of a cash-generating unit and the determination of the recoverable amount for the performance of impairment tests is connected with assessments made by management concerning future developments and experience gained in the past. The cash flows predicted on the basis of these assessments may be affected by factors including volatility of capital markets, exchange-rate fluctuations and expected economic development. The WACCs used for discounting take into account the market risk and the capital structure of companies comparable to the applicable group of cash-generating units. Changes in these factors may have significant impact on the existence or amount of a value impairment. Further details are given in note (1).

The actuarial assessments for the determination of provisions for pensions and similar obligations are based on major assumptions and estimates with respect to the discount rates used and expected future adjustments to salaries and pensions as well as life expectancy. All the parameters used are regularly reviewed as of the statement of financial position date. Any changes in the parameters used may lead to changes in statement of financial position values. Further details are given in note (10).

The determination of the settlement amount of provisions for restructuring, environmental risks, guarantees and litigation is normally connected with estimates and uncertainty. For the measurement of such values, the assessments of local independent experts are used in some cases. In the future, deviations between actual events and the assumptions made may necessitate adjustments to the Group's provisions. More detailed information on provisions is given in note (11).

The measurement of certain derivative financial instruments without an active market such as put or call options and earn-out clauses is based on probability predictions and the best possible estimates of the expected settlement amount, taking into consideration recognized mathematical Finance methods. Further information on financial instruments is given in note (12).

When determining whether sufficient taxable income will be available in the future for assessing the value of deferred tax assets and the usability of losses carried forward, various estimates, including the development of tax planning strategies, must be made. Deviations between the actual results and the estimates made may have an effect on the assets, liabilities and earnings situation. Further details are given in note (25).

Fair value is determined on the basis of input factors in 3 defined categories. Determination is based on estimates and assumptions associated with uncertainty. The following fair value measurement hierarchy is applied:

Level 1: Use of quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date.

Level 2: Determination of fair value using measurement procedures based on observed input factors for similar assets or liabilities in active markets or for identical assets or liabilities in markets that are not active.

Level 3: Measurement of assets and liabilities using measurement methods based on unobservable inputs as adequate observable market data are not available for the measurement of fair value.

#### **Currency translations**

The financial statements of almost all companies included in the consolidated financial statements which are not located in the eurozone are drawn up in the national currencies concerned. This is the currency of the primary economic environment in which the companies concerned operate (concept of functional currency).

In the accounts of individual companies, foreign-currency receivables and liabilities are translated at the exchange rates as of the date of the statement of financial position.

Goodwill created as a result of acquisitions on or after March 31, 2004, is carried as an asset of the economically independent foreign companies concerned in their respective functional currencies.

In the consolidated financial statements, the financial statements of all companies not located in the eurozone are translated in accordance with the following principles:

- Statement of financial position items are translated at the exchange rate as of the date of the statement of financial position.
- Statement of profit or loss items are translated at average annual exchange rates.
- Differences arising from the use of different exchange rates are recognized in equity without an effect on net income.

The same principles are used in the case of investments in joint ventures and associated companies consolidated by the equity method.

The exchange rates of currencies used for currency conversion which are material to the annual financial statements developed as follows:

Country	Currency	Closing rate		Currency Closing rate Average rate		ge rate
	1 euro =	Dec. 31, 2016	Dec. 31, 2017	2016	2017	
Brazil	BRL	3.4394	3.9729	3.8003	3.6434	
China	CNY	7.3443	7.8044	7.3488	7.6557	
India	INR	71.8220	76.6055	74.3119	73.7879	
Japan	JPY	123.5816	135.0100	120.4280	127.3040	
Turkey	TRY	3.7288	4.5464	3.3394	4.1429	
USA	USD	1.0568	1.1993	1.1040	1.1370	

Differences arising from the use of different exchange rates compared with the previous year are shown in the statement of changes in intangible and tangible assets with respect to non-current assets and in the consolidated statement of comprehensive income with respect to equity.

### NOTES TO THE CONSOLIDATED STATEMENT OF FINANCIAL POSITION

#### (1) Intangible assets

Changes in intangible assets from January 1 to December 31, 2016:

[€ million]	Internally generated software	Develop- ment costs	Develop- ment costs under construc- tion	Conces- sions, licenses and Others <sup>1</sup>	Goodwill	Payments made on account	Intangible assets in course of construc- tion	Total		
ACQUISITION/PRODUCTION COST										
Status Jan. 1, 2016	0.0	0.0	0.0	754.8	611.9	1.8	0.0	1,368.5		
Changes in consolidated group <sup>2</sup>	3.0	12.8	10.8	971.6	927.5	1.7	0.0	1,927.4		
Exchange rate differences	0.3	0.0	0.0	17.1	13.4	0.0	0.0	30.8		
Additions	0.1	0.0	9.3	13.1	3.6	3.2	0.0	29.3		
Write-ups	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Disposals	0.0	0.0	0.0	-27.2	-3.8	0.0	0.0	-31.0		
Reclassifi- cations <sup>3</sup>	0.5	0.0	0.0	1.4	0.0	-0.4	0.0	1.5		
Status Dec. 31, 2016	3.9	12.8	20.1	1,730.8	1,552.6	6.3	0.0	3,326.5		
AMORTIZATION										
AMORTIZATION										
Status Jan. 1, 2016	0.0	0.0	0.0	444.2	53.3	0.0	0.0	497.5		
Changes in consolidated group <sup>2</sup>	2.0	2.0	0.0	31.3	0.0	0.0	0.0	35.3		
Exchange rate differences	0.2	0.0	0.0	8.6	2.7	0.0	0.0	11.5		
Additions – systematic	0.3	1.3	0.0	109.7	0.0	0.0	0.0	111.3		
Impairment losses	0.0	0.0	0.0	11.9	50.9	0.0	0.0	62.8		
Write-ups	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Disposals	0.0	0.0	0.0	-26.9	-0.2	0.0	0.0	-27.1		
Reclassifi- cations³	0.5	0.0	0.0	-0.4	0.0	0.0	0.0	0.1		
Status Dec. 31, 2016	3.0	3.3	0.0	578.4	106.7	0.0	0.0	691.4		
Book value Dec. 31, 2016	0.9	9.5	20.1	1,152.4	1,445.9	6.3	0.0	2,635.1		

<sup>1</sup> Intangible assets identified in connection with purchase price allocations mainly concern customer lists/relations, technologies and know-how. 2 The previous year's presentation has been adjusted compared with the 2016 Annual Report. 3 The reclassifications also include transfers to other balance sheet items.

Changes in intangible assets from January 1 to December 31, 2017:

[€ million]	Internally generated software	Develop- ment costs	Develop- ment costs under construc- tion	Conces- sions, licenses and Others <sup>1</sup>	Goodwill	Payments made on account	Intangible assets in course of construc- tion	Total
ACQUISITION/PR	ODUCTION CO	ST						
Status Jan. 1, 2017	3.9	12.8	20.1	1,730.8	1,552.6	6.3	0.0	3,326.5
Changes in consolidated group	0.0	2.8	0.0	39.4	59.8	0.0	0.0	102.0
Exchange rate differences	-0.5	-0.1	-0.1	-52.5	-44.8	-0.1	0.0	-98.1
Additions	0.4	0.0	14.5	14.2	0.0	1.2	11.3	41.6
Write-ups	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Disposals	0.0	0.0	0.0	-20.1	0.0	0.0	0.0	-20.1
Reclassifi- cations <sup>2</sup>	0.1	7.4	-7.4	3.5	0.0	-5.0	1.4	0.0
Status Dec. 31, 2017	3.9	22.9	27.1	1,715.4	1,567.6	2.4	12.7	3,352.0
AMORTIZATION								
Status Jan. 1, 2017	3.0	3.3	0.0	578.4	106.7	0.0	0.0	691.4
Changes in consolidated group	0.0	2.6	0.0	-1.4	0.0	0.0	0.0	1.2
Exchange rate differences	-0.3	-0.2	0.0	-30.7	-6.8	0.0	0.0	-38.0
Additions – systematic	0.4	2.9	0.0	140.3	0.0	0.0	0.0	143.6
Impairment losses	0.0	0.0	0.0	1.7	0.0	0.0	0.0	1.7
Write-ups	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Disposals	0.0	0.0	0.0	-19.6	0.0	0.0	0.0	-19.6
Reclassifi- cations <sup>2</sup>	0.0	0.0	0.0	-0.4	0.0	0.0	0.0	-0.4
Status Dec. 31, 2017	3.1	8.6	0.0	668.4	99.9	0.0	0.0	780.0
Book value Dec. 31, 2017	0.8	14.3	27.1	1,047.0	1,467.7	2.4	12.7	2,572.0

<sup>1</sup> Intangible assets identified in connection with purchase price allocations mainly concern customer lists/relations, technologies and know-how. 2 The reclassifications also include transfers to other balance sheet items.

Goodwill was subjected to an impairment test as at December 31, 2017. Apart from the expected developments in sales and profit as well as net investments of the Business Groups concerned, the basic assumptions used for determining the value in use of the groups of cash generating units included a growth rate of 2.0 percent (previous year: 2.0 percent) and pre-tax WACCs ranging from 8.7 percent to 10.9 percent (previous year: ranging from 5.2 percent to 12.2 percent). On this basis,

it was not necessary to recognize any impairment of goodwill.

The 2 significant goodwill items are assigned to the groups of cash-generating units Vibracoustic and Freudenberg Sealing Technologies. The book values of these goodwill items and the sustainable growth rates and WACCs used for the impairment test are listed in the following table:

[€ million]	Vibrac	oustic	Freudenberg Sealing Technologies		
	Dec. 31, 2016	Dec. 31, 2017	Dec. 31, 2016	Dec. 31, 2017	
Goodwill	835,9	835,9	174,9	178,9	
Sustainable growth rate	2,0 %	2,0 %	2,0 %	2,0 %	
WACC	9,9 %	10,7 %	9,9 %	10,9 %	

For the group of cash-generating units Vibracoustic, in addition to the sustainable growth rate and WACC mentioned above, corporate planning also includes a growth rate slightly above the growth rate for global automobile production derived from external studies as increased market share is expected during the planning period. The main areas of growth will be in the regions of North America and Asia. Cost increases are to be compensated for by productivity improvements; to this extent, profitability is expected to grow at a higher rate than sales during the detailed planning period.

For the significant goodwill items, a variation of up to +/-1.0 percentage points in the WACC would not result in an impairment loss.

The business plans for 2018 of the group of cash-generating units of Freudenberg Sealing Technologies are based on generally positive market developments. Despite differences between the various regions and sectors, moderate global business growth is expected in the sealing segment. Rising costs are to be compensated for by further productivity increases, leaner processes in development, sales and administration and selective price policies. In the fields of digitalization and transformation to e-mobility, the measures adopted will be significantly expanded and accelerated. Freudenberg Sealing Technologies will provide considerable resources for this purpose.

### (2) Tangible assets

Changes in tangible assets from January 1 to December 31, 2016:

	Land and	Machinery and	Other fixtures, fittings and office	Payments made on	Cons- truction in	
[€ million]	buildings	equipment	equipment	account	progress	Total
ACQUISITION/PRODUCTION COST						
Status Jan. 1, 2016	1,159.3	2,230.6	827.5	15.8	123.6	4,356.8
Changes in consolidated group <sup>1</sup>	225.9	1,043.1	393.0	21.3	70.4	1,753.7
Exchange rate differences	16.5	44.1	8.3	0.7	2.2	71.8
Additions	20.0	71.7	62.9	35.9	187.3	377.8
Write-ups	0.0	0.7	0.0	0.0	0.0	0.7
Disposals	-18.5	-70.7	-55.8	-1.5	-1.2	-147.7
Reclassifications <sup>2</sup>	34.0	87.3	52.8	-29.4	-146.5	-1.8
Status Dec. 31, 2016	1,437.2	3,406.8	1,288.7	42.8	235.8	6,411.3
DEPRECIATION						
Status Jan. 1, 2016	563.4	1,596.6	622.2	0.0	0.4	2,782.6
Changes in consolidated group <sup>1</sup>	44.6	752.8	272.6	0.0	0.0	1,070.0
Exchange rate differences	7.1	34.1	5.9	0.0	0.0	47.1
Additions - systematic	38.3	140.0	93.5	0.0	0.0	271.8
Impairment losses	0.3	3.8	0.8	0.0	0.7	5.6
Write-ups/ revaluations	-0.5	-0.7	0.0	0.0	0.0	-1.2
Disposals	-11.1	-64.0	-53.0	0.0	0.0	-128.1
Reclassifications <sup>2</sup>	0.4	-0.4	-0.4	0.0	0.0	-0.4
Status Dec. 31, 2016	642.5	2,462.2	941.6	0.0	1.1	4,047.4
Book value Dec. 31, 2016	794.7	944.6	347.1	42.8	234.7	2,363.9

 $<sup>^1\!\</sup>text{The}$  previous year's presentation has been adjusted compared with the 2016 Annual Report.

 $<sup>^{\</sup>rm 2}$  The reclassifications also include transfers to other balance sheet items.

Changes in tangible assets from January 1 to December 31, 2017:

[€ million]	Land and buildings	Machinery and equipment	Other fixtures, fittings and office equipment	Payments made on account	Cons- truction in progress	Total
ACQUISITION/PRODUCTION CO	OST					
Status Jan. 1, 2017	1,437.2	3,406.8	1,288.7	42.8	235.8	6,411.3
Changes in consolidated group	0.1	19.3	-1.2	-0.5	0.6	18.3
Exchange rate differences	-65.7	-155.2	-44.5	-2.3	-12.6	-280.3
Additions	41.4	90.7	77.9	38.8	210.8	459.6
Write-ups	1.0	2.1	0.1	0.0	0.0	3.2
Disposals	-8.3	-89.1	-44.6	-6.9	-6.2	-155.1
Reclassifications <sup>1</sup>	63.3	100.6	75.2	-31.0	-208.1	0.0
Status Dec. 31, 2017	1,469.0	3,375.2	1,351.6	40.9	220.3	6,457.0
DEPRECIATION						
Status Jan. 1, 2017	642.5	2,462.2	941.6	0.0	1.1	4,047.4
Changes in consolidated group	-1.4	8.2	-1.5	0.0	0.0	5.3
Exchange rate differences	-24.1	-112.5	-29.1	0.0	0.0	-165.7
Additions - systematic	42.2	161.7	120.3	0.0	0.0	324.2
Impairment losses	1.3	3.6	0.3	0.0	1.9	7.1
Write-ups	1.0	2.1	0.1	0.0	0.0	3.2
Disposals	-4.6	-75.3	-41.3	0.0	-2.5	-123.7
Reclassifications <sup>1</sup>	11.6	-11.1	-0.2	0.0	-0.2	0.1
Status Dec. 31, 2017	668.5	2,438.9	990.2	0.0	0.3	4,097.9
Book value Dec. 31, 2017	800.5	936.3	361.4	40.9	220.0	2,359.1

<sup>&</sup>lt;sup>1</sup>The reclassifications also include transfers to other balance sheet items.

In the financial year under review, Freudenberg received government grants for tangible assets in the amount of €0.3 million (previous year: €1.2 million). The grants mainly concerned investment promotion and were netted against acquisition costs.

#### Leased assets

Leased assets are recognized under non-current assets at the following book values:

[€ million]	Dec. 31, 2016	Dec. 31, 2017
Land and buildings	4.5	4.1
Machinery and equipment	3.0	2.2
Other fixtures, fittings and office equipment	0.2	0.1
Book value of leased assets recognized	7.7	6.4

The finance lease contracts were concluded at arm's-length business conditions. Such leases normally include favorable purchase options. The lease contracts

do not provide for any contingent rent payments or significant restrictions.

[€ million]	Up to 1 year	1 to 5 years	Over 5 years	Dec. 31, 2016	Up to 1 year	1 to 5 years	Over 5 years	Dec. 31, 2017
Finance leases								
Minimum lease payments	1.4	2.5	5.0	8.9	1.0	1.6	4.4	7.0
Discount	0.1	0.2	1.0	1.3	0.0	0.1	0.9	1.0
Present value	1.3	2.3	4.0	7.6	1.0	1.5	3.5	6.0
Operating leases								
Minimum lease payments	79.0	157.7	88.9	325.6	78.3	185.5	142.3	406.1

Lease payments totaling €120.7 million (previous year: €101.5 million) under operating leases were recognized with an effect on net income.

#### (3) Investment properties

Details of land and buildings held by Freudenberg as investment properties are shown in the table below:

[€million]	2016	2017
Third-party use	100 %	100 %
Rent income	4.0	4,0

There were no significant direct operating expenses in the year under review or in the previous year.

There are no restrictions on the saleability of investment properties. Freudenberg is not under any contractual obligations to purchase, build or develop investment properties. Furthermore, Freudenberg is not under any contractual obligations to repair or maintain such investment properties going beyond its statutory obligations.

Changes in investment properties from January 1 to December 31:

[€ million]	2016	2017
ACQUISITION/PRODUCTION COST		
Status Jan. 1	46.2	45.7
Changes in consolidated group	0.0	0.0
Exchange rate differences	0.0	0.0
Additions	0.0	0.3
Write-ups/revaluations	0.0	0.0
Disposals	-0.5	0.0
Reclassifications	0.0	0.0
Status Dec. 31	45.7	46.0
DEPRECIATION		
Status Jan. 1	30.5	31.9
Changes in consolidated group	0.0	0.0
Exchange rate differences	0.0	0.0
Additions - systematic	1.4	1.4
Impairment losses	0.0	0.0
Write-ups/revaluations	0.0	0.0
Disposals	0.0	0.0
Reclassifications	0.0	0.0
Status Dec. 31	31.9	33.3
Book value Dec. 31	13.8	12.7

The fair value of investment properties was €37.0 million (previous year: €50.5 million) and was calculated on the basis of discounted cash flows (level 3 inputs).

### (4) Investments in joint ventures

The joint venture agreement with NOK Corporation, Tokyo, Japan, is of major importance for Freudenberg.

NOK-Freudenberg Asia Holding Co. Pte. Ltd., Singapore, is a 50:50 joint venture between the Japanese

NOK Corporation and Freudenberg SE with the objective of serving the high-growth Chinese and Indian market with locally-produced and imported sealing products.

The summarized financial information of this joint venture company is set out below:

[€ million]		NOK-Freudenberg Asia Holding Co. Pte. Ltd.		
	Dec. 31, 2016	Dec. 31, 2017		
Current assets	179.4	202.8		
Of which: cash and cash equivalents	50.3	66.0		
Non-current assets	152.0	166.3		
Current liabilities	92.2	101.7		
Of which: current financial liabilities	15.5	13.1		
Non-current liabilities	0.1	0.1		
Equity without non-controlling interests	239.1	267.3		
Freudenberg share	50.0 %	50.0 %		
Pro-rata share in equity	119.5	133.7		
At-equity measurement	119.5	133.7		
	2016	2017		
Sales	338.9	377.1		
Profit or loss from continuing operations	37.6	43.3		
Other comprehensive income	-9.3	-12.9		
Total comprehensive income	28.3	30.4		
Of which: depreciation and amortization	-16.6	-16.2		
Of which: interest income	0.9	0.4		
Of which: interest expenses	-0.6	-1.3		
Of which: income tax expense or income	-16.5	-14.6		

Freudenberg received no dividend (previous year: €22.2 million) from NOK-Freudenberg Asia Holding Co. Pte. Ltd.

The total carrying amount of interests in all individual joint ventures which are not material was €15.8 million (previous year: €30.3 million).

The pro-rata share of the profit or loss from continuing operations of all individual joint ventures classed as not material was €-0.2 million (previous year: €35.4 million) and the pro-rata share in other comprehensive income was €0.1 million (previous year: €-3.2 million). The prorata share in total comprehensive income was therefore €-0.1 million (previous year: €32.2 million).

#### (5) Investments in associated companies

For Freudenberg, its most important investment in associated companies is its participation in the Japanese company NOK Corporation with its registered office in Tokyo, Japan.

The NOK Group manufactures and supplies sealing products, flexible printed circuits, roll products for office equipment and further products such as specialty lubricants.

This major associated company gave the following figures in its consolidated interim financial statements as at December 31 in each case:

[€ million]	NOK Cor	poration
	Dec. 31, 2016	Dec. 31, 2017
Current assets	2,859.9	2,703.9
Non-current assets	3,308.7	3,383.8
Current liabilities	1,594.4	1,444.5
Non-current liabilities	867.7	866.4
Treasury shares	-10.4	-3.3
Non-controlling interests	291.4	297.6
Equity without treasury shares and non-controlling interests	3,425.5	3,482.5
Freudenberg share	25.1%	25.1%
Pro-rata share in equity	859.9	874.2
Goodwill	7.1	7.1
At-equity measurement	867.0	881.3
	2016	2017
Sales	5,707.4	5,797.6
Profit or loss from continuing operations	161.0	321.6
Other comprehensive income	-169.8	143.1
Total comprehensive income	-8.8	464.7

The increase in the other comprehensive income of NOK Corporation is due to exchange differences on translating the financial statement in foreign currency, to effects from the change in the value of securities available for sale and to the remeasurement of defined benefit plans.

Freudenberg received dividends in the amount of €16.9 million (previous year: €18.1 million) from NOK Corporation.

As at December 31, 2017, the market value of the shareholding in NOK Corporation was €846.9 million (¥ 114,336.7 million) (previous year: €832.0 million; ¥ 102,820.4 million).

The total carrying amount of interests in all associated companies classed as not material was €22.1 million (previous year: €33.5 million).

The pro-rata share in the profit or loss from continuing operations of all individual associated companies classed as not material was €6.5 million (previous year: €12.0 million) and the pro-rata share in the other comprehensive income of these companies was €-4.9 million (previous year: €0.7 million). The prorata share in the total comprehensive income was therefore €1.6 million (previous year: €12.7 million).

The company EagleBurgmann Venezuela C.A., Caracas, Venezuela, was included in the consolidated financial statements as an associated company for the first time with effect from the beginning of the financial year. In view of the currency restrictions in force in Venezuela, it was decided that here was no possibility of obtaining variable returns from the company and that a loss of control had therefore taken place.

#### (6) Inventories

Inventories break down as follows:

[€ million]	Dec. 31, 2016	Dec. 31, 2017
Raw materials and consumables	304.6	327.5
Work in progress	135.7	149.2
Finished goods and merchandise	547.9	540.7
Payments made on account	3.2	4.5
	991.4	1,021.9

Inventories rose by €30.5 million compared with the previous year. After eliminating the effects of changes in the consolidated group and exchange rate effects, inventories rose by about 8 percent.

Write-downs of inventories totaling €33.0 million (previous year: €27.5 million) were recognized as expenses in the reporting year.

Write-ups totaling €12.3 million (previous year: €12.0 million) were effected on inventories as the reason for the impairment losses concerned no longer existed.

The inventories shown are not subject to any significant restrictions on title or disposal.

#### (7) Receivables

[€ million]	Dec. 31, 2016	Dec. 31, 2017
Trade receivables	1,500.9	1,509.1
Of which: Residual term up to 1 year	1,500.9	1,509.1
Of which: Residual term more than 1 year	0.0	0.0
Other assets	262.4	232.6
Of which: Residual term up to 1 year	211.5	177.4
Of which: Residual term more than 1 year	50.9	55.2

After adjustment for effects resulting from changes in the consolidated group and exchange rate effects, trade receivables rose by about 6 percent.

The other assets for the year under review include pension plan assets in excess of the corresponding pension obligations amounting to €7.2million (previous year: €0 million).

The other assets also include other tax receivables in the amount of €73.9 million (previous year: €75.3 million) and liability insurance claims totaling €5.2 million (previous year: €5.3 million).

The claims for reimbursement in connection with recognized provisions, which are included in other assets, are shown in the other provisions under note (11).

#### (8) Securities and cash at bank and in hand

[€ million]	Dec. 31, 2016	Dec. 31, 2017
Securities	30.6	82.0
Checks and cash in hand	4.1	3.7
Cash at banks	926.0	913.1
	960.7	998.8

The increase in securities mainly concerns a rise in commercial papers and other short-term investments.

#### (9) Equity

The subscribed capital in the amount of €450.0 million (previous year: €450.0 million) consists of 450 million no-par-value registered shares. The sole shareholder of Freudenberg SE is Freudenberg & Co. Kommanditgesellschaft, Weinheim (hereafter: Freudenberg & Co. KG).

The **reserves** break down as follows:

[€ million]	Dec. 31, 2016	Dec. 31, 2017
Capital reserves	50.2	50.2
Retained earnings	3,735.8	4,008.9
	3,786.0	4,059.1

The capital reserves consist of contributions in kind made by the shareholder.

The retained earnings include net income earned by the Group in the past and not distributed as well as reserves of companies included in the consolidated financial statements including expenses and income recorded without effect on net income. The profit distributed in the reporting year amounted to €114.4 million (previous year: €90.2 million). This corresponded to a profit per share of €0.25 (previous year: €0.20).

The Board of Management proposes that the 2017 net retained profit in the amount of € 2,015.3 million (previous year: € 1,559.5 million) should be carried forward to new account.

In the reporting year, income (+) and expenses (-) which had previously been recorded without an effect on net income with respect to the following components of other comprehensive income were reclassified to the statement of profit or loss:

[€ million]	Dec. 31,2016	Dec. 31,2017
Exchange rate differences	23.3	-6.3
Derivative financial instruments	-0.2	-1.1
	23.1	-7.4

In the 2017 financial year, tax effects (income (+)/expenses (-)) recorded without effect on net income are attributable to the various items of other comprehensive income as follows:

[€ million]	Dec. 31,2016	Dec. 31,2017
Remeasurement of defined benefit plans	10.9	-23.9
Securities and other items	0.3	19.1
	11.2	-4.8

#### Non-controlling interests

The change in non-controlling interests in the equity of consolidated affiliated companies from €367.3 million to €325.9 million is mainly the result of the allocation of profit for the year. Furthermore, dividends, exchange rate differences and the acquisition of the remaining shares in Integral Accumulator GmbH & Co. KG, Weinheim, also resulted in a reduction in non-controlling interests

In the case of the following affiliated company, the consolidated financial statements include significant noncontrolling interests in the amount of 25 percent of the shares:

[€ million]		
Freudenberg-NOK General Partnership, Plymouth, USA	Dec. 31, 2016	Dec. 31, 2017
Profit (+)/loss (-) attributable to non- controlling interests	16.7	14.3
Total amount of non- controlling interests	112.0	109.8

This affiliated company is included in the consolidated financial statements with the following values:

[€ million]		
Freudenberg-NOK General Partnership	Dec. 31, 2016	Dec. 31, 2017
Current assets	296.8	303.6
Non-current assets	319.8	290.8
Current liabilities	110.4	124.8
Non-current liabilities	79.9	49.0
	2016	2017
Sales	655.8	656.5
Profit (+)/loss (-)	54.8	60.3
Total comprehensive income	67.4	-3.7

Freudenberg-NOK General Partnership paid dividends in the amount of €2.0 million (previous year: €5.0 million) to the holder of the non-controlling interests.

Other non-controlling interests especially concern the EagleBurgmann Business Group, where they arise especially as a result of the contractual agreements with the partner Eagle Industry Co., Ltd., Tokyo, Japan.

#### (10) Provisions for pensions and similar obligations

The Freudenberg pension scheme consists of both defined contribution and defined benefit pension plans. Defined benefit plans include both fixed salary and final salary plans. The provisions for pensions and similar obligations include obligations arising from current pensions and future pension entitlements.

The pension plans at Freudenberg Group mainly concern German, US and British companies. The pension obligations of the German companies are commitments financed by provisions. These obligations are subject to the rules of the pension plan concerned and the applicable statutory provisions. The plans include benefit commitments dependent on service periods and on salaries and provide for disability benefits and benefits for surviving dependents as well as for retirement benefits.

In the reporting year, the 2 largest US pension plans were settled with effect from June 30, 2017. The winding-up was effected by a combination model including the transfer to an external insurer of entitlements already earned and one-off payments to the plan participants.

The pension plans of British companies and the remaining US companies are managed by third party pension funds. The representatives of the pension funds are legally obliged to act in the interest of all participants in the plan. In cooperation with investment advisers, they are responsible for the development and regular review of investment strategies for the plan assets. Commitments based on age and years of service include both retirement benefits and certain forms of survivor benefits. Most of these plans are frozen and future entitlements can no longer be earned by plan participants. The pension obligations of these companies are mainly financed by plan assets, funded chiefly by employers' contributions.

Apart from pension obligations, this item also includes obligations similar to pensions, such as amounts paid to employees upon the termination of their employment which do not constitute termination benefits. These benefits vary in accordance with the legal, tax and economic conditions in the countries concerned.

All defined benefit schemes of the Freudenberg Group are subject to typical actuarial risks, especially investment and interest risks.

Current service cost and net interest on the net defined benefit liability are disclosed in the statement of profit or loss under personnel expenses in the relevant functional areas.

In the case of the defined contribution plans, there are no additional obligations apart from the payment of contributions. Contributions paid are expensed under personnel expenses and amounted to €77.6 million in 2017 (previous year: €78.4 million).

The defined benefit obligations were calculated on actuarial principles by the projected unit credit method. The calculation was based on the following discount rates as major actuarial assumptions:

	Dec. 31, 2016	Dec. 31, 2017
Germany	1.80 %	1.85 %
USA	3.75 %	3.82 %
United Kingdom	2.79 %	2.40 %

In the case of the other foreign companies, the discount rates ranged from 0.5% to 3.0% (previous year: 0.3% to 4.0%).

As a result of the pension plan regulations, the assumed trend in salaries and pensions only has an effect on the value of pension obligations in exceptional cases.

Net obligations are shown in the following items of the statement of financial position:

[€ million]	Dec. 31, 2016	Dec. 31, 2017
Provisions for pensions and similar obligations	758.1	735.9
Other assets	0.0	7.2
	758.1	728.7

Net obligations are calculated as follows:

[€ million]	Dec. 31, 2016	Dec. 31, 2017
Present value of funded obligations	518.4	299.9
Fair value of plan assets	-464.1	-275.4
Surplus (-)/deficit (+)	54.3	24.5
Present value of unfunded obligations	703.8	704.2
	758.1	728.7

### Defined benefit obligations developed as follows:

[€ million]	Germany	USA	United Kingdom	Miscella- neous	2016
Present value of defined benefit obligations, Jan. 1, 2016	539.8	155.9	193.3	87.3	976.3
Current service cost	14.0	0.0	0.0	6.7	20.7
Interest cost	12.0	6.5	5.9	2.4	26.8
Gains (-) and losses (+) from remeasurement of defined benefit obligations	35.8	2.1	31.1	9.7	78.7
Gains (-) and losses (+) on settlements	0.0	-0.2	0.0	-0.1	-0.3
Past service cost	0.0	0.0	0.0	-0.4	-0.4
Contributions by plan participants	0.0	0.0	0.0	0.7	0.7
Liabilities extinguished on settlements	0.0	-3.3	0.0	-1.1	-4.4
Benefits paid	-18.7	-8.6	-8.3	-9.8	-45.4
Changes in consolidated group	47.6	18.3	0.0	122.6	188.5
Other changes	4.6	-0.1	0.0	-3.0	1.5
Exchange rate differences	0.0	5.7	-27.7	1.5	-20.5
Present value of defined benefit obligations, Dec. 31, 2016	635.1	176.3	194.3	216.5	1,222.2

[€ million]	Germany	USA	United Kingdom	Miscella- neous	2017
Present value of defined benefit obligations, Jan. 1, 2017	635.1	176.3	194.3	216.5	1,222.2
Current service cost	16.2	0.6	0.0	8.0	24.8
Interest cost	11.2	3.4	5.0	2.1	21.7
Gains (-) and losses (+) from remeasurement of defined benefit obligations	-1.9	9.7	-8.5	0.4	-0.3
Gains (-) and losses (+) on settlements	0.0	0.5	0.0	0.0	0.5
Past service cost	-1.2	0.0	0.0	0.0	-1.2
Contributions by plan participants	0.0	0.0	0.0	0.7	0.7
Liabilities extinguished on settlements	0.0	-135.2	-45.5	-2.9	-183.6
Benefits paid	-21.2	-5.4	-9.9	-9.0	-45.5
Other changes	1.0	-2.1	0.0	6.7	5.6
Exchange rate differences	0.0	-18.9	-6.4	-15.5	-40.8
Present value of defined benefit obligations, Dec. 31, 2017	639.2	28.9	129.0	207.0	1,004.1

The plan assets of funded pension plans developed as follows:

[€ million]	USA	United Kingdom	Miscella- neous	2016
Fair value of plan assets, Jan. 1, 2016	134.0	187.9	28.2	350.1
Interest income	5.6	5.8	0.6	12.0
Gains (-) and losses (+) from remeasurement of plan assets	-0.2	19.9	6.9	26.6
Contributions by employer	10.6	2.0	-0.6	12.0
Contributions by plan participants	0.0	0.0	0.7	0.7
Benefits paid	-8.6	-8.3	0.5	-16.4
General plan administration costs	-1.1	-0.3	-0.1	-1.5
Changes in consolidated group	15.5	0.0	89.2	104.7
Other changes	-3.4	0.0	0.6	-2.8
Exchange rate differences	4.9	-27.0	0.8	-21.3
Fair value of plan assets, Dec. 31, 2016	157.3	180.0	126.8	464.1

[€ million]	USA	United Kingdom	Miscella- neous	2017
Fair value of plan assets, Jan. 1, 2017	157.3	180.0	126.8	464.1
Interest income	3.5	4.6	0.8	8.9
Gains (-) and losses (+) from remeasurement of plan assets	4.3	2.7	5.1	12.1
Contributions by employer	17.8	2.0	7.7	27.5
Contributions by plan participants	0.0	0.0	0.8	0.8
Liabilities extinguished on settlements	-135.4	-45.5	-2.9	-183.8
Benefits paid	-5.4	-9.9	-6.5	-21.8
General plan administration costs	-1.5	-0.3	0.0	-1.8
Other changes	-1.8	0.0	5.7	3.9
Exchange rate differences	-16.9	-5.9	-11.7	-34.5
Fair value of plan assets, Dec. 31, 2017	21.9	127.7	125.8	275.4

The fair value of plan assets with quoted prices in active markets was as follows:

[€ million]	Dec. 31, 2016	Dec. 31, 2017
Equity instruments	115.0	104.4
Interest-bearing securities	158.7	51.0
Other assets	87.1	66.5
	360.8	221.9

The fair value of plan assets without quoted prices in active markets was as follows:

[€ million]	Dec. 31, 2016	Dec. 31, 2017
Equity instruments	0.8	0.8
Interest-bearing securities	0.1	0.3
Other assets	102.4	52.4
	103.3	53.5

In the reporting year, gains and losses from the remeasurement of the defined benefit obligations and plan assets recognized in retained earnings developed as follows:

[€ million]	2016	2017
Gains (+) and losses (-) from remeasurement, Jan. 1	-354.9	-397.7
Gains (+) and losses (-) from remeasurement of defined benefit obligations	-78.7	0.3
Of which: as a result of changed financial assumptions	-78.1	-4.5
Of which: as a result of changed demographic assumptions	5.0	6.5
Of which: as a result of experience-based adjustments	-5.6	-1.7
Gains (+) and losses (-) from remeasurement of plan assets	26.6	12.1
Reclassifications/other changes	1.1	70.4
Exchange rate differences	8.2	9.8
Gains (+) and losses (-) from remeasurement, Dec. 31	-397.7	-305.1

In the following year, contributions in the amount of €12.8 million (previous year: €36.1 million) will probably be made to plan assets.

The weighted average duration of defined benefit obligations as at the end of the reporting year was 16.9 years (previous year: 16.7 years).

The possible changes in the defined benefit obligation as a result of changes in the discount rate, a major actuarial assumption, were calculated on the basis of the projected unit credit method. If the discount rate as at the statement of financial position date had been 0.50 percentage points lower, the present value of defined benefit obligations as at the statement of financial position date would have been €88.2 million (previous year: €103.9 million) higher. If the discount rate as at the statement of financial position date had been 0.50 percentage points higher, the present value of defined benefit obligations as at the statement of financial position date would have been €77.9 million (previous year: €89.7 million) lower.

#### (11) Other provisions

[€ million]	Personnel obligations	Warranties, guarantees and onerous contracts	Rebates, bonuses and commissions	Miscella- neous	Total
Status Jan. 1, 2017	345.8	106.3	45.6	265.8	763.5
Increases	258.7	58.1	41.8	152.9	511.5
Unwinding of discount and effect of change in discount rate	0.0	0.3	0.0	0.3	0.6
Amounts used	-214.0	-25.4	-29.6	-105.4	-374.4
Reversal	-27.3	-23.0	-7.8	-36.7	-94.8
Exchange rate differences	-12.3	-3.4	-3.0	-13.0	-31.7
Changes in consolidated group	0.7	1.6	-0.2	0.9	3.0
Other changes	-0.6	0.0	1.3	-4.3	-3.6
Status Dec. 31, 2017	351.0	114.5	48.1	260.5	774.1
Of which: long-term	58.9	24.2	1.9	57.6	142.6
Of which: short-term	292.1	90.3	46.2	202.9	631.5
Reimbursement claims connected with provisions and shown in the statement of financial position under other assets	1.3	0.0	0.3	10.2	11.8

The provisions for personnel obligations mainly include provisions for other short-term employee benefits such as bonuses and commissions, provisions for vacation not taken and other long-term employee benefits such as long-term remuneration components as well as provisions for termination benefits.

The provisions for guarantees and warranties concern products supplied and services rendered, as do provisions for rebates, bonuses and commissions. The provisions for onerous contracts include unrealized losses from contracts which have not been performed or not been fully performed.

The miscellaneous provisions include the following items:

[€ million]	Dec. 31, 2016	Dec. 31, 2017
Restructuring	42.9	35.9
Legal action	30.3	25.0
Environmental protection	21.2	18.6
Advertising	9.8	8.5
Other	161.6	172.5
Total	265.8	260.5

#### (12) Liabilities

	Residual term			Residual term				
[€ million]	Up to 1 year	1 to 5 years	More than 5 years	Dec. 31, 2016	Up to 1 year	1 to 5 years	More than 5 years	Dec. 31, 2017
Liabilities to banks (= financial debt)	90.7	541.6	58.2	690.5	201.3	342.1	10.5	553.9
Cash pool liablilities <sup>1</sup>					98.0	0.0	0.0	98.0
Other financial debt, including leasing	12.6	2.5	4.0	19.1	12.4	1.6	3.8	17.8
Shareholder's loans	365.0	150.0	150.0	665.0	370.0	150.0	150.0	670.0
Accounts of Freudenberg & Co. KG Partners	170.6	245.3	0.0	415.9	178.1	274.3	0.0	452.4
Financial debt	638.9	939.4	212.2	1,790.5	859.8	768.0	164.3	1,792.1
Trade payables	907.2	0.0	0.0	907.2	882.9	0.0	0.0	882.9
Advance payments received on orders	22.0	0.0	0.0	22.0	21.1	0.0	0.0	21.1
Miscellaneous liabilities	492.5	179.2	191.6	863.3	420.4	183.2	97.5	701.1
Other liabilities	514.5	179.2	191.6	885.3	441.5	183.2	97.5	722.2
	2,060.6	1,118.6	403.8	3,583.0	2,184.2	951.2	261.8	3,397.2

<sup>&</sup>lt;sup>1</sup> Prior year disclosure in other liabilities

The average interest rate on long-term liabilities to banks is 0.83 percent (previous year: 1.04 percent).

The interest payable on the certificates of indebtedness included in the liabilities to banks is based on variable and fixed components. Cash flows for variable and fixed interest and repayment of principal will probably be as follows from 2018 to 2023:

[€ million]	Book value	Cash flows			
	Dec. 31, 2017	2018	2019	2019 - 2023	
Certificates of indebtedness	336.5	126.2	2.8	219.3	

Other financial debt includes loans granted by third parties. This item also includes liabilities in connection with finance leasing, with an average interest rate of 3.22 percent (previous year: 3.70 percent). Further details are given in the information on finance leases under note (2).

The loans granted by the shareholder were extended during the reporting year. Interest is payable on these loans at rates between 1.00 and 3.35 percent (previous year: between 1.00 and 3.35 percent).

The interest rates applicable to accounts of Freudenberg & Co. KG Partners vary between 1.00 and 4.00 percent depending on the individual agreements (previous year: between 1.00 and 4.00 percent).

Miscellaneous liabilities include liabilities for tooling cost contributions, outstanding wages and salaries, holiday pay and special bonuses and liabilities for other taxes, as well as liabilities in connection with social security.

### Contingent liabilities and other financial obligations

[€ million]	Dec. 31, 2016	Dec. 31, 2017
CONTINGENT LIABILITIES		
Bills of exchange	0.5	0.1
Guarantees	11.7	27.4
Warranty agreements	8.3	8.0
Miscellaneous	5.0	10.1
	25.5	45.6
OTHER FINANCIAL COMMITMENTS		
Commitments arising from leasing contracts <sup>1</sup>	316.5	390.3
Purchase commitments in connection with intangible assets	1.8	0.5
Purchase commitments in connection with tangible assets	58.1	48.0
Purchase commitments in connection with the delivery of goods and services	95.0	105.8
Miscellaneous	2.7	10.2
	474.1	554.8

 $<sup>^{1}</sup>$  See also the explanatory remarks on leased assets in note (2) to the Consolidated Financial Statements.

In addition, the following contingent liabilities and other financial commitments concern joint ventures:

[€ million]	Dec. 31, 2016	Dec. 31, 2017
CONTINGENT LIABILITIES		
Guarantees	6.3	6.0
Warranties	0.0	0.4
	6.3	6.4
OTHER FINANCIAL COMMITMENTS		
Commitments arising from leasing contracts <sup>1</sup>	24.1	15.8
Purchase commitments in connection with tangible assets	1.3	0.0
Purchase commitments in connection with the delivery of goods and services	0.2	0.1
	25.6	15.9

<sup>&</sup>lt;sup>1</sup> See also the explanatory remarks on leased assets in note (2) to the Consolidated Financial Statements.

#### Additional information on financial instruments

The term "financial instrument" is used to refer to any contract that gives rise to both a financial asset of one enterprise and a financial liability or equity instrument of another enterprise. A distinction is made between primary and derivative financial instruments. Primary financial instruments in the case of the purchase or sale of assets are recognized at the settlement date, i.e. the delivery of the asset concerned. Derivative financial instruments are recognized as of the trade date. In the event of loss of control over the contractually agreed rights to a financial asset, the asset concerned is derecognized. Financial liabilities are derecognized on the statement of financial position when the commitment is discharged or cancelled, or expires.

Under IAS 39, financial instruments are divided into the following categories:

### Loans and receivables

This category includes financial assets with fixed or determinable payments that are not quoted in an active market.

### Held-to-maturity investments

Held-to-maturity investments are financial assets with fixed or determinable payments and fixed maturity that an entity has the positive intention and ability to hold to maturity.

#### Available-for-sale financial assets

This category includes all the other financial assets which cannot be allocated to any of the categories mentioned above.

 Financial assets or financial liabilities at fair value through profit or loss

These include:

- financial assets or financial liabilities held for trading and
- financial assets or financial liabilities designated by the entity as at fair value through profit or loss upon initial recognition.

Freudenberg does not hold any financial assets or financial liabilities for trading purposes.

Freudenberg did not avail itself of the fair value option under IAS 39 under which it is possible to measure any financial asset or financial liability at fair value through profit or loss.

### **Primary financial instruments**

Primary financial instruments are assigned to categories on the basis of the relevant items in the statement of financial position. The allocation to the categories unambiguously defines the accounting and measurement of the instruments.

Loans, receivables and liabilities are recognized at amortized cost. Available-for-sale financial assets are recognized at fair value without effect on net income except where the fair value of such assets cannot be reliably determined. In such cases, these assets are recognized at acquisition costs. Any impairments are shown in the statement of profit or loss with an effect on net income.

[€ million]	Loans and receivables at amortized cost	Available-for- sale financial assets at fair value without effect on profit or loss	Available-for- sale financial assets at amortized cost	Other financial liabilities at amortized cost	Book value Dec. 31, 2016
ASSETS					
Other financial assets <sup>1</sup>	7.9	72.3	47.9		128.1
Trade receivables	1,500.9				1,500.9
Other assets	140.2				140.2
Securities and cash at bank and in hand	960.7				960.7
	2,609.7	72.3	47.9		2,729.9
LIABILITIES					
Financial debts				1,790.5	1,790.5
Trade payables				907.2	907.2
Other liabilities				493.4	493.4
				3,191.1	3,191.1

 $<sup>^{\</sup>rm 1}\,\mbox{Prior-year}$  disclosure corrected compared to the 2016 Annual Report.

[€ million]	Loans and receivables at amortized cost	Available-for- sale financial assets at fair value without effect on profit or loss	Available-for- sale financial assets at amortized cost	Other financial liabilities at amortized cost	Book value Dec. 31, 2017
ASSETS					
Other financial assets	8.3	84.2	30.0		122.5
Trade receivables	1,509.1				1,509.1
Other assets	104.9				104.9
Securities and cash at bank and in hand	998.8				998.8
	2,621.1	84.2	30.0		2,735.3
LIABILITIES					
Financial dobts				1 702 1	1 702 1

 Financial debts
 1,792.1
 1,792.1

 Trade payables
 882.9
 882.9

 Other liabilities
 407.8
 407.8

 3,082.8
 3,082.8

Freudenberg currently does not hold any held-to-maturity investments.

The fair values of financial assets and liabilities recognized at amortized cost are approximately equal to their book values.

The fair values of financial instruments held by Freudenberg and measured at fair value were determined on the basis of active markets for identical assets (level 1 inputs) at €84.2 million (previous year: €72.3 million).

### Information on credit risks

[€ million]	Trade receivables		Other assets	
	Dec. 31, 2016	Dec. 31, 2017	Dec. 31, 2016	Dec. 31, 2017
Book value	1,500.9	1,509.1	140.2	104.9
Of which: neither past due nor impaired	1,261.6	1,200.2	135.2	95.0
Of which: not impaired as at the date of the statement of financial position and past due within the following time				
Up to 60 days	174.0	232.2	1.9	7.7
Between 61 and 120 days	28.4	34.6	0.2	0.3
Between 121 and 180 days	9.7	17.2	0.2	0.6
Between 181 and 360 days	8.2	9.6	1.6	0.4
More than 360 days	7.6	3.7	0.7	0.5

In the case of trade receivables and other assets for which no impairments have been recognized and which are not past due, no defaults are expected. The major part of trade receivables (normally between 70 and 90 percent of each receivable) is covered by credit insurance. Otherwise, the book value represents the maximum credit risk associated with each receivable.

Impairment losses to trade receivables developed as follows:

[€ million]	2016	2017
Impairment losses Jan. 1	19.4	26.6
Changes in consolidated group	2.8	-0.7
Exchange rate differences	0.0	-1.3
Additions (expenses for impairments)	11.8	7.2
Amounts used	-3.2	-4.8
Reversals (write-ups)	-4.2	-4.5
Impairment losses Dec. 31	26.6	22.5

Impairment losses to other assets developed as follows:

[€ million]	2016	2017
Impairment losses Jan. 1	2.3	2.7
Changes in consolidated		
group	0.4	0.0
Exchange rate differences	0.0	-0.1
Additions (expenses for		
impairments)	0.0	0.3
Amounts used	0.0	-2.0
Reversals (write-ups)	0.0	-0.4
Impairment losses Dec. 31	2.7	0.5

In the year under review, impairment losses to receivables totaling €4.9 million (previous year: €4.2 million) were reversed as the reason for the impairment no longer applied and impairment losses in the amount of €7.5 million (previous year: €11.8 million) were set up. These impairment losses were recognized where payments were no longer expected or no longer expected in full.

#### **Derivative financial instruments**

Freudenberg SE is responsible for all financing activities and also operates the cash management system for the entire group of companies. Group companies obtain the financing they require via cash pools or internal loans or, in some countries, in the form of bank loans guaranteed by Freudenberg SE.

The limits of action, responsibilities and control procedures in connection with derivative financial instruments are laid down in a binding form in internal directives for Group companies. Freudenberg does not expose itself to additional financial risks through speculation with derivative financial instruments but uses such instruments only for hedging purposes and therefore reducing risks in connection with transactions. Future transactions are only hedged if there is a high probability of occurrence.

As a general principle Freudenberg uses derivative financial instruments for hedging interest rate and foreign exchange risks.

Fair values are determined on the basis of quoted prices, accepted market information systems or discounted cash flows.

Derivative financial instruments for hedging recognized assets or liabilities (fair value hedges) are shown in the statement of financial position at fair value. Changes in the fair value are recorded in the statement of profit or loss. Financial instruments for hedging future cash flows (cash flow hedges) are also included in the statement of financial position at fair value, but changes in the fair value of such instruments are recognized without effect on net income under retained earnings, taking into consideration the applicable income taxes. Such changes are recognized in the statement of profit or loss when the underlying transactions concerned are effected. Ineffective portions of hedge transactions are always recognized in the statement of profit or loss.

Derivative financial instruments used for hedging purposes without any eligible underlying transaction are measured at fair value with an impact on net income.

As in the previous year, there were no derivatives entered into for the purpose of interest rate hedging as at December 31, 2017.

As at December 31, 2017, the face value of currency futures concluded for hedging foreign exchange risks and still open was €105.4 million (previous year: €46.1million). The negative fair value of these instruments as at December 31, 2017 was €0.9 million (previous year: negative fair value of €1.8 million).

Of the total volume of derivatives, 0 percent (previous year: 4.8 percent) had a term of more than one year.

The following fair values of derivative financial instruments are included in the other assets and other liabilities respectively:

[€ million]	Dec. 31, 2016	Dec. 31, 2017
OTHER ASSETS		
Currency futures	0.8	0.9
OTHER LIABILITIES		
Currency futures	2.6	1.8

In the reporting year, value changes in the case of currency futures (cash flow hedges) are recognized in equity in the amount of €-0.1 million (previous year: €-1.0 million).

The fair values of currency futures were determined on the basis of the quoted currency future prices for similar financial instruments (level 2 inputs).

### Risks in connection with financial instruments

Freudenberg is exposed to risks resulting from changes in exchange rates and interest rates and, as a general principle, uses conventional derivative instruments such as interest rate swaps, caps and currency futures to hedge risks in connection with business operations and financing to a limited extent. The use of these instruments is governed by Freudenberg directives within the risk management system which lay down limits on the basis of the value of the underlying transactions, define approval procedures, exclude the use of

derivative instruments for speculative purposes, minimize credit risks and govern internal reporting and the separation of functions. Compliance with these directives and the proper handling and measurement of transactions are regularly verified, observing the principle of separation of functions. Furthermore, risk management for financial instruments is integrated in the Freudenberg Group risk management system.

The risks which are hedged are chiefly as follows:

#### Interest rate risk:

In the case of fixed-interest loans or investments, there is a risk that changes in the market interest rate will affect the market value of the item concerned (market value risk contingent on interest rates). In contrast, variable interest loans and investments are not subject to this risk as the interest rate is adjusted to reflect changes in the market situation with a very short delay. However, there is a risk with respect to future interest payments as a result of short-term fluctuations in market interest rates (cash flow risk contingent on interest rates).

Risks associated with interest rate changes mainly affect long-term items. A fall in long-term interest rates results in a decrease in the fair value shown on the statement of financial position for derivative financial instruments concluded for interest rate hedging.

If market interest rates had been 0.5 percentage points higher or lower, on average, as of December 31, 2017, this would have had only an insignificant impact on net income.

### **Currency risk:**

The primary financial instruments are chiefly held in the functional currency.

Exchange rate differences caused by the conversion of financial statements into the Group currency are not taken into consideration.

If the value of the euro against major currencies held at the date of the statement of financial position (USD, GBP and JPY) had been 10 percent higher as at December 31, 2017, the profit before income taxes would have been €8.0 million (previous year: €5.4 million) lower. If the value of the euro against major currencies held (USD, GBP and JPY) had been 10 percent lower as at December 31, 2017, the profit before income taxes would have been €9.8 million (previous year: €6.6 million) higher.

### Liquidity risk:

Risks connected with cash flow fluctuations are identified by the cash flow planning system already in place. As a result of Freudenberg's good rating (A3) and the credit lines granted by banks on a binding basis, Freudenberg can access ample sources of funds at all times.

### Credit risk:

Specific provisions and individualized generic provisions are recognized to take account of identifiable risks not covered by credit insurance. Otherwise, the book value represents the maximum credit risk.

Freudenberg only concludes derivative financial instruments with national and international banks of at least investment grade rating. Credit risks are largely limited by distributing hedges between several banks and a policy of applying caps to individual banks.

## NOTES TO THE CONSOLIDATED STATEMENT OF PROFIT OR LOSS

### (13) Sales

[€ million]	2016	2017
Sales from sales of goods	7,628.7	9,027.8
Sales from services	148.5	159.4
Sales from research and development / research and development licenses	52.8	73.3
Sales from production- related licenses	1.2	1.4
Other sales	68.9	83.7
	7,900.1	9,345.6

Other sales include, inter alia, sales from rental and lease contracts and sales from support and supplementary operations.

### (14) Cost of sales

Cost of sales, amounting to €6,171.1 million (previous year: €5,085.2 million), indicates the cost of goods and services sold. Apart from individual directly attributable costs, such as personnel expenses and material expenses, overheads, including depreciation/amortization, are also shown under cost of sales. Amortization of capitalized development expenditure amounted to €2.9 million (previous year: €1.3 million).

### (15) Selling expenses

Selling expenses, amounting to €1,365.8 million (previous year: €1,298.1 million) include all expenses incurred in the sales area, for example personnel, advertising, carriage and packaging expenses.

### (16) Administrative expenses

In 2017, administrative expenses amounted to €622.6 million (previous year: €600.3 million). Administrative expenses include all expenses which cannot be allocated to production, sales or research and development and concern, inter-alia personnel expenses and miscellaneous administrative expenses.

### (17) Research and development expenses

Apart from personnel and material expenses, research and development expenses chiefly include the cost of licenses and patents occurring in the course of development projects.

### (18) Other income

[€ million]	Dec 31, 2016	Dec 31, 2017
Currency and exchange rate gains <sup>1</sup>	8.3	0.0
Income from other secondary business	2.4	2.1
Income from disposals of intangible and tangible assets	15.0	8.3
Income from the change in status of investments previously consolidated at-equity	583.5	22.2
Income from disposals of financial assets	63.7	0.8
Income from recharges	7.9	7.6
Miscellaneous income	61.9	62.3
	742.7	103.3

<sup>&</sup>lt;sup>1</sup> after offsetting of exchange rate losses

The fall in other income is chiefly due to one-off effects from the previous year. Firstly, income from the change in status of investments previously consolidated at equity occurred in 2016 (Vibracoustic Group in the amount of €567.9 million and Japan Vilene Group in the amount of €15.6 million). Secondly, other income for the previous year also included income from the disposal of financial assets as a result of the sale of the Freudenberg Schwab Vibration Control Group.

### (19) Other expenses

[€ million]	Dec 31, 2016	Dec 31, 2017
Currency and exchange rate losses <sup>1</sup>	0.0	7.8
Losses resulting from disposals of intangible and tangible assets	6.6	7.6
Losses from the change in status of investments previously consolidated atequity	5.7	2.5
Losses resulting from disposals of financial assets	0.3	3.4
Miscellaneous expenses	125.3	77.8
	137.9	99.1

<sup>&</sup>lt;sup>1</sup> after offsetting of exchange rate gains

The miscellaneous expenses include a wide variety of operating expenses. For the previous year, this item included the impairment loss on the goodwill of the cash-generating unit Freudenberg Oil & Gas Technologies, amounting to €50.9 million.

### (20) Income from investments in joint ventures

The decrease in income from investments in joint ventures from €54.2 million to €21.5 million was caused by the change in status of the Vibracoustic Group to full consolidation with effect from July 1, 2016.

### (21) Income from investments in associated companies

The rise in income from investments in associated companies from €47.5 million to €79.4 million is a result of the increased pro rata share in the profit of the associated company NOK Corporation, Tokyo, Japan. This was offset by the change in status of Japan Vilene to full consolidation by virtue of gaining control with effect from April 1, 2016.

### (22) Other investment result

The increase in the other investment result from €-0.7 million to €36.8 million was mainly a result of the fact that more income from dividends was realized in the financial year.

### (23) Other interest and similar income

Other interest and similar income rose from €10.7 million to €13.3 million.

### (24) Interest and similar expenses

In 2017, interest expenses amounted to €44.0 million (previous year: €37.8 million). This item chiefly includes interest on shareholder's loans in the amount of €12.5 million (previous year: €12.1 million) and interest payable to the Partners of Freudenberg & Co. KG in the amount of €12.1 million (previous year: €10.9 million).

### (25) Income taxes

This item shows German corporation tax (plus solidarity surcharge) and municipal trade taxes and similar taxes on income payable in other countries.

The figure also includes deferred taxes on temporary differences between the tax balance sheets and commercial balance sheets of individual companies, on adjustments to uniform measurement within Freudenberg and on consolidation transactions.

Deferred taxes are calculated at the tax rates applicable in the countries concerned.

Income taxes break down as follows (expense (-) /income (+)):

[€ million]	2016	2017
Current taxes related to the reporting period	-243.1	-258.2
Current taxes related to prior periods	-2.8	8.7
Deferred taxes	67.7	66.5
	-178.2	-183.0

The amount of deferred tax income related to changes in tax rates was €17.3 million (previous year: deferred tax income of €1.6 million). Deferred tax income includes income in the amount of €51.9 million (previous year: €66.3 million) resulting from the development or elimination of temporary differences. In the reporting year impairment losses with respect to deferred taxes on temporary differences were recognized in the amount of €6.4 million (previous year: €1.5 million).

In the reporting year, deferred taxes related to transactions recognized directly under equity resulted in an reduction in equity of €4.8 million (previous year: increase in equity of €11.2 million).

As of December 31, 2017, tax losses carried forward amounted to €417.7 million (previous year: €394.0 million). Deferred tax assets were recognized in respect of tax losses carried forward totaling €29.7 million (previous year: €42.1 million). Deferred tax assets were not recognized in respect of tax losses carried forward with a total amount of €388.0 million (previous year: €351.9 million) as it is not expected that these losses will be usable. Of the tax losses carried forward, €6.7 million (previous year: €13.0 million) will be forfeited in the period up to 2027 if they are not used.

In the reporting year, tax losses carried forward totaling €17.0million (previous year: €18.6 million) for which no deferred tax assets had been recognized were used.

Deferred taxes concern temporary differences and tax losses carried forward with the following amounts:

[€ million]	Deferred tax assets Dec. 31, 2016	Deferred tax liabilities Dec. 31, 2016	Deferred tax assets Dec. 31, 2017	Deferred tax liabilities Dec. 31, 2017
Intangible assets	16.1	357.1	14.6	312.9
Tangible assets	9.8	136.0	11.1	116.7
Financial assets	2.3	2.7	0.9	2.1
Inventories	43.9	0.5	36.4	1.0
Receivables	11.3	8.5	16.3	10.3
Other assets	2.4	0.2	6.3	0.5
Provisions for pensions and similar obligations	130.2	0.0	121.7	0.3
Other provisions	88.5	1.3	69.3	1.8
Liabilities	39.8	30.4	45.8	11.0
Other liabilities	0.2	9.7	0.1	4.4
Tax losses carried forward	9.1	0.0	6.4	0.0
	353.6	546.4	328.9	461.0
Offsetting	-124.9	-124.9	-103.9	-103.9
Recognized in statement of financial position	228.7	421.5	225.0	357.1

No deferred tax items were set up on temporary differences arising from shareholdings totaling €38.7 million (previous year: €37.0 million) as short-term dividend payments are not expected.

### Reconciliation of expected income tax with actual income tax expense

Freudenberg SE and its German subsidiaries are subject to corporation tax (plus solidarity surcharge) and the municipal trade tax on income. Income realized in other countries is taxed at the rates applicable in the countries concerned. The tax rate of 30.0 percent (previous year: 30.0 percent) used for calculating the expected tax expense is based on the structure of Freudenberg relevant for taxation. It is calculated as the weighted average of the tax rates for the regions in which Freudenberg realized its main income.

[€ million]	2016	2017
Profit before income taxes	1,265.1	883.1
Expected income tax expense (-)/ income (+)	-379.5	-264.9
Different tax rates:		
In Germany	0.1	0.3
In other countries	15.8	29.2
Tax portion of:		
Non-taxable income	240.0	52.4
Non-deductible expenses	-54.0	-39.2
Current taxes related to prior periods	-2.8	41.2
Tax portion of new tax losses carried forward for which no deferred tax assets were recognized	-10.7	-13.7
Tax portion of tax losses carried forward and used for which no deferred tax assets were recognized	2.4	2.1
Other taxation effects	10.5	9.6
	-178.2	
Actual income tax expense		-183.0
Effective tax rate (percent)	14.1	20.7

### (26) Profit or loss attributable to non-controlling interests

[€ million]	2016	2017
Profit	56.7	56.0
Loss	-11.5	-7.8
	45.2	48.2

## NOTES TO THE CONSOLIDATED STATEMENT OF CASH FLOWS

### (27) Cash flow from operating activities

The cash flow from operating activities takes into account dividends received from joint ventures totaling €0.3 million (previous year: €22.8 million) and dividends received from associated companies totaling €24.0 million (previous year: €26.0 million).

### (28) Cash flow from operating activities

Payments to shareholders and non-controlling interests include dividends paid to the shareholder, to the Partners of Freudenberg & Co. KG and to holders of non-controlling interests in Group companies.

### (29) Reconciliation of financial debt

The table below shows the reconciliation of financial debt:

[€ million]	2016	Effective payments	Not effective payments			2017
			Acquisitions / Disposals	Exchange rate effects	Others	
Liabilities to banks	690.5	-126.8	0.2	-10.0	0.0	553.9
Liabilities from cash pool <sup>1</sup>	77.6	20.9	0.0	0.0	-0.5	98.0
Other financial debt, Including liabilities from finance lease liabilities	19.2	-26.3	0.4	-1.1	25.6	17.8
Shareholder's loans	665.0	5.0	0.0	0.0	0.0	670.0
Accounts of Freudenberg & Co. KG Partners	415.8	36.9	0.0	0.0	-0.3	452.4
Financial debt	1,868.1	-90.3	0.6	-11.1	24.8	1,792.1

<sup>&</sup>lt;sup>1</sup> Prior-year disclosure in other liabilities

### (30) Cash flow from operating activities

Freudenberg recognizes checks, cash in hand, cash at bank and short-term securities with an original term of up to 3 months as cash and cash equivalents. Cash and cash equivalents include funds with an amount of €1.1 million (previous year: €2.9 million) subject to restrictions on use. The funds subject to restrictions on use by Freudenberg largely concern cash and cash equivalents held by affiliates which can only be used by Freudenberg with restrictions as a result of exchange controls.

### **FURTHER NOTES**

### **Material expenses**

[€ million]	2016	2017
Raw materials, consumables and merchandise purchased	3,007.3	3,721.2
Services purchased	215.6	274.8
	3,222.9	3,996.0

### **Workforce and personnel expenses**

In the year under review, an average of 47,657 (previous year: 40,951) persons were employed in the following functions:

2017	Germany	Other countries	Total
Production	6,548	25,394	31,942
Sales	1,897	6,101	7,998
Research and development	1,662	1,783	3,445
Administration	1,307	2,965	4,272
	11,414	36,243	47,657

[€ million]	2016	2017
Wages and salaries	1,869.0	2,083.9
Social security contributions and costs of pensions and assistance	448.8	526.6
Personnel expenses	2,317.8	2,610.5

### Research and development

In the year under review, research and development activities amounting to €427.8 million (previous year: €335.1 million) were performed. Of this amount, €72.7 million (previous year: €52.5 million) were charged to third parties. The figure includes government grants for research and development projects totaling €2.3 million (previous year: €2.5 million).

Research and development activities include research and development expenses disclosed in the consolidated statement of profit or loss as well as capitalized development expenditure for the current financial year less amortization.

### Related party disclosure

Relations with related parties concern the parent company Freudenberg & Co. KG, joint ventures, associated companies and other related parties.

Other related parties include other participations of the parent company and companies that are not included in the consolidated financial statements for reasons of materiality. Transactions with these parties in the course of the company's ordinary business were as follows:

		Receivables				Payables	
[€ million]	Sales 2016	Residual term up to 1 year	Residual term more than 1 year	Dec. 31, 2016	Residual term up to 1 year	Residual term more than 1 year	Dec. 31, 2016
Parent company	7.6	2.9	0.0	2.9	447.0	300.0	747.0
Joint ventures	51.6	26.9	0.0	26.9	3.1	0.0	3.1
Associated companies	17.3	4.8	0.0	4.8	10.0	0.0	10.0
Other related parties	3.4	1.7	0.0	1.7	37.6	0.0	37.6
	79.9	36.3	0.0	36.3	497.7	300.0	797.7

		Receivables				Payables	
[€ million]	Sales 2017	Residual term up to 1 year	Residual term more than 1 year	Dec. 31, 2017	Residual term up to 1 year	Residual term more than 1 year	Dec. 31, 2017
Parent company	7.7	2.4	0.0	2.4	471.0	300.0	771.0
Joint ventures	50.9	28.8	0.0	28.8	1.8	0.0	1.8
Associated companies	16.0	8.3	0.0	8.3	8.4	0.0	8.4
Other related parties	3.7	3.9	0.0	3.9	38.9	0.0	38.9
	78.3	43.4	0.0	43.4	520.1	300.0	820.1

Related parties also include the members of the Board of Management and the Supervisory Board. The members of these bodies are listed under "Company Boards".

The total remuneration of members of the Board of Management, or expenditure for short-term payments for members of the Board of Management amounted to €8.5 million (previous year: €8.5 million).

A current service cost of €4.8 million (previous year: €3.9 million) was incurred with respect to company pensions for Board of Management members.

An amount of €46.5 million (previous year: €48.3 million) was assigned to provisions for pension obligations to former members of the Board of Management.

Under a service agreement, Freudenberg SE paid an amount of €0.8 million (previous year: €0.8 million) to its parent company for the performance of key management functions.

### Fees of the Auditor

The auditor, Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft, performed the following services in the 2017 financial year:

[€ million]	2017
Auditing services	1.5
Other sercives	0.8
	2.3

### Major events after the date of the statement of financial position

There were no further events of major significance for the net assets, financial position and results of operations of the group of companies up to March 23, 2018 (the date when the annual report was approved for publication by the Supervisory Board).

Weinheim, March 23, 2018

Freudenberg SE

The Board of Management

### **SHAREHOLDINGS**

### AS AT 31 DECEMBER, 2017

Company	Location	Country	Share of capital [%]
Freudenberg SE	Weinheim	Germany	-
I. AFFILIATED COMPANIES			
Germany			
Blaesus Grundstücksverwaltungsgesellschaft mbH & Co. Vermietungs KG	Mainz	Germany	70.47
Burgmann International GmbH¹	Wolfratshausen	Germany	100.00
Capol GmbH¹	Elmshorn	Germany	100.00
Carl Freudenberg KG	Weinheim	Germany	100.00
Chem-Trend (Deutschland) GmbH¹	Maisach-Gernlinden	Germany	100.00
Corteco GmbH¹	Weinheim	Germany	100.00
CT Beteiligungs-GmbH¹	Munich	Germany	100.00
Dichtomatik Vertriebsgesellschaft für technische Dichtungen m.b.H	Hamburg	Germany	100.00
DS Beteiligungs-GmbH¹	Weinheim	Germany	100.00
DS Holding-GmbH¹	Weinheim	Germany	100.00
DS Verwaltungs-GmbH	Weinheim	Germany	100.00
EagleBurgmann Atlantic GmbH	Wolfratshausen	Germany	75.00
EagleBurgmann Espey GmbH¹	Moers	Germany	75.00
EagleBurgmann Germany GmbH & Co. KG¹	Wolfratshausen	Germany	75.00
EagleBurgmann Germany Verwaltungs-GmbH	Wolfratshausen	Germany	75.00
EagleBurgmann Middle-East GmbH	Wolfratshausen	Germany	60.00
Externa Handels- und Beteiligungsgesellschaft mit beschränkter Haftung¹	Weinheim	Germany	100.00
FCS-Munich GmbH¹	Weinheim	Germany	100.00
FFT Beteiligungs-GmbH¹	Weinheim	Germany	100.00
FHP Export GmbH¹	Weinheim	Germany	100.00
FHP Holding GmbH¹	Weinheim	Germany	100.00
FIT Service GmbH¹	Weinheim	Germany	100.00
Freudenberg Chemical Specialities SE & Co. KG¹	Munich	Germany	100.00
Freudenberg Dichtungs- und Schwingungstechnik GmbH¹	Berlin	Germany	100.00
Freudenberg DS Tooling Center GmbH & Co. KG¹	Weinheim	Germany	100.00
Freudenberg Filtration Technologies SE & Co. KG¹	Weinheim	Germany	100.00
Freudenberg Handels- und Beteiligungs-GmbH¹	Weinheim	Germany	100.00
Freudenberg Haushaltsprodukte Augsburg GmbH¹	Augsburg	Germany	100.00
Freudenberg Home and Cleaning Solutions GmbH¹	Weinheim	Germany	100.00
Freudenberg IT GmbH & Co. KG¹	Weinheim	Germany	100.00
Freudenberg Medical Europe GmbH¹	Kaiserslautern	Germany	100.00
Freudenberg Oil & Gas GmbH¹	Weinheim	Germany	100.00
Freudenberg Performance Materials Apparel SE & Co. KG¹	Weinheim	Germany	100.00

Company	Location	Country	Share of capital [%]
Freudenberg Performance Materials Holding SE & Co. KG¹	Weinheim	Germany	100.00
Freudenberg Performance Materials Logistics SE & Co. KG¹	Weinheim	Germany	100.00
Freudenberg Performance Materials SE & Co. KG¹	Weinheim	Germany	100.00
Freudenberg Performance Materials Service SE & Co. KG¹	Kaiserslautern	Germany	100.00
Freudenberg Process Seals GmbH & Co. KG¹	Weinheim	Germany	100.00
Freudenberg Real Estate GmbH¹	Weinheim	Germany	100.00
Freudenberg Sealing Technologies GmbH & Co. KG¹	Weinheim	Germany	100.00
Freudenberg Sealing Technologies GmbH¹	Hamburg	Germany	100.00
Freudenberg Technology Innovation SE & Co. KG¹	Weinheim	Germany	100.00
Freudenberg Verwaltungs- und Beteiligungs-GmbH	Weinheim	Germany	100.00
Freudenberg Wohnbauhilfe GmbH	Weinheim	Germany	100.00
FV Beteiligungs-GmbH¹	Weinheim	Germany	100.00
Hemoteq AG	Würselen	Germany	74.97
Integral Accumulator GmbH & Co. KG¹	Weinheim	Germany	100.00
Kaul GmbH	Elmshorn	Germany	100.00
Klüber Lubrication Deutschland SE & Co. KG¹	Munich	Germany	100.00
Klüber Lubrication GmbH¹	Weinheim	Germany	100.00
Klüber Lubrication München SE & Co. KG¹	Munich	Germany	100.00
Lederer GmbH¹	Öhringen	Germany	100.00
OKS Spezialschmierstoffe GmbH¹	Maisach-Gernlinden	Germany	100.00
PTFE Compounds Germany GmbH¹	Bördeland	Germany	100.00
Schneegans Freudenberg GmbH & Co. KG¹	Emmerich am Rhein	Germany	51.00
SF GmbH	Emmerich am Rhein	Germany	51.00
SurTec Deutschland GmbH¹	Zwingenberg	Germany	100.00
SurTec International GmbH¹	Bensheim	Germany	100.00
Vibracoustic Asia Holding GmbH	Weinheim	Germany	100.00
Vibracoustic CV Air Springs GmbH	Hamburg	Germany	65.07
Vibracoustic Europe GmbH	Darmstadt	Germany	100.00
Vibracoustic Germany GmbH	Breuberg	Germany	100.00
Vibracoustic GmbH	Darmstadt	Germany	100.00
Vibracoustic GmbH & Co. KG	Weinheim	Germany	100.00
Vileda Gesellschaft mit beschränkter Haftung¹	Weinheim	Germany	100.00
Other Countries			
Freudenberg S.A. Telas sin Tejer	Buenos Aires	Argentina	100.00
Klüber Lubrication Argentina S.A.	Buenos Aires	Argentina	100.00
Chem-Trend Australia Pty Ltd	Thomastown	Australia	100.00
EagleBurgmann Australasia Pty. Ltd.	Ingleburn	Australia	25.00
Freudenberg Filtration Technologies (Aust) Pty. Ltd.	Braeside	Australia	100.00
Freudenberg Household Products Pty. Ltd.	Surrey Hills	Australia	100.00
Freudenberg Pty. Ltd.	Thomastown	Australia	100.00

Freudenberg Sealing Technologies Pty Ltd.         Brendale         Australia         10000           Klüber Lubrication Australia Pty, Itd.         Thomastown         Australia         10000           Seiglesurgmann Belgium BVSA         Sint-Job-in't-Coor         Belgium         75 00           FHP Vileda S.C.S         Verviers         Belgium         100 00           Klüber Lubrication Belgium Netherlands S.A.         Dottignies         Belgium         100 00           Klüber Lubrication Belgium Netherlands S.A.         Dottignies         Belgium         100 00           Engleburgmann de Brasil Vedacoes Itda.         Campinas         Brazil         100 00           Engleburgmann de Brasil Vedacoes Itda.         Jacarei         Brazil         100 00           Freudenberg Produtos do Lar Itda.         Brazil         100 00         Freudenberg Produtos do Lar Itda.         Barueri         Brazil         100 00           Freudenberg Productos do Lar Itda.         Barueri         Brazil         100 00         Freudenberg Productos do Lar Itda.         Barueri         Brazil         100 00           Freudenberg Productos do Rarsil Itda.         Rio de Janeiro         Brazil         100 00           Vetra Fernologia do Brasil Itda.         Rio de Janeiro         Brazil         100 00           Vetra de produc	Company	Location	Country	Share of capital [%]
EagleBurgmann Belgium BV.B.A.         Sint-Job-in-t-Goor         Belgium         75.00           FHP Viceda S.C.S.         Verviers         Belgium         100.00           Klüber Lubrication Belgium Netherlands S.A.         Dottignies         Belgium         100.00           Klüber Lubrication Beneliux S.A./N.V         Dottignies         Belgium         100.00           Chem-Trend Industria e Comercio de Produtos Quimicos Ltda.         Valinhos         Brazil         100.00           EagleBurgmann do Brasil Vedacoes Ltda.         Jacarei         Brazil         100.00           Freudenberg Rodutos do Lar Ltda.         Jacarei         Brazil         100.00           Freudenberg Servicos Corporativos da America do Sul Ltda.         Barueri         Brazil         100.00           Freudenberg Servicos Corporativos da America do Sul Ltda.         Barueri         Brazil         100.00           Freudenberg Servicos Corporativos da America do Sul Ltda.         Barueri         Brazil         100.00           Freudenberg Produtos do Jacarei Brasil Ltda.         Barueri         Brazil         100.00           Vulracion Lubrication Christicante Especiais Ltda.         Rouse Brazil         100.00           Vibracoustic South America Itda.         Rouse Brazil         100.00           Vibracoustic South America Itda.         Rouse Bra	Freudenberg Sealing Technologies Pty. Ltd.	Brendale	Australia	100.00
FHP Vileda S.C.S.	Klüber Lubrication Australia Pty. Ltd.	Thomastown	Australia	100.00
Klüber Lubrication Belgium Netherlands S.A.  Dottignies Belgium 100.00 Klüber Lubrication Benelux S.A./N.V.  Dottignies Belgium 100.00 Chem-Tiend Industria e Comercio de Produtos Quimicos Ltda. Valinhos Brazil 75.00 Freudenberg Nao-Tecidos Ltda. Freudenberg Nao-Tecidos Ltda. Freudenberg Produtos do Lar Ltda. Freudenberg Servicos Corporativos da America do Sul Ltda. Freudenberg Produtos do Lar Ltda. Freudenberg Produtos de Lar Ltda. Freudenberg Produtos de Brazil Ltda. Freudenberg Produtos de Hogar Ltda. Freudenberg Produtos del Hogar Ltda. Freudenberg Freudenberg Freudenberg August Productos del Hogar Ltda. Freudenberg Freu	EagleBurgmann Belgium B.V.B.A.	Sint-Job-in-'t-Goor	Belgium	75.00
Klüber Lubrication Benelux S.A./N.V.  Chem-Trend Industria e Comercio de Produtos Quimicos Ltda.  Campinas Brazil 100.00  Freudenberg Nao-Tecidos Ltda.  Freudenberg Produtos du tat Ltda.  Freudenberg Produtos du tat Ltda.  Freudenberg Produtos do Lat Ltda.  Freudenberg Produtos do Lat Ltda.  Freudenberg Servicos Corporativos da America do Sul Ltda.  Barueri Brazil 100.00  Freudenberg-NoK-Componentes Brasil Ltda.  Barueri Brazil 100.00  Brazil 100.00  Freudenberg-Productos de Brasil Ltda.  Rio de Janeiro Brazil 100.00  Freudenberg-Productos del Hogar Ltda.  Guarulhos Brazil 100.00  Freudenberg-Productos del Hogar Ltda.  Santiago de Chile Chile 100.00  Freudenberg-Productos del Hogar Ltda.  Santiago de Chile Chile 100.00  Burgmann Dalian Co. Ltd.  Dalian China 40.00  Burgmann Shanghai Ltd.  Shanghai China 40.00  Changchun Integral Accumulator Co., Ltd.  Changchun Integral Accumulator Co., Ltd.  Chem-Trend (Shanghai) Trading Co. Ltd.  Shanghai China 100.00  Dichtomatik (China) Co., Ltd.  Shanghai China 100.00  EagleBurgmann Technology (Shanghai) Co., Ltd.  Shanghai China 50.00  EagleBurgmann Technology (Tianjin) Co., Ltd.  Shanghai China 87.50  Freudenberg-Reviene International (Shanghai) Ton, Ltd.  Shanghai China 87.50  Freudenberg-Reviene Norwovens (Suzhou) Co. Ltd.  Shanghai China 100.00  EagleBurgmann Technology (Tianjin) Co., Ltd.  Shanghai China 100.00  Freudenberg-Reviene Norwovens (Suzhou) Co. Ltd.  Suzhou China 100.00  Freudenberg-Reviene Norwovens (Suzhou) Co. Ltd.  Shanghai China 100.00  Freudenberg-Reviene Norwovens (Suzhou) Co. Ltd.  Shanghai China 100.00  Freudenberg-Reviene Norwovens (Suzhou) Co. Ltd.  Shanghai China	FHP Vileda S.C.S.	Verviers	Belgium	100.00
Chem-Trend Industria e Comercio de Produtos Químicos Ltda.  Valinhos Brazil 100.00 EagleBurgmann do Brasil Vedacoes Ltda.  Campinas Brazil 75.00 Freudenberg Nao-Tecidos Ltda.  Freudenberg Produtos do Lar Ltda.  Freudenberg Servicos Corporativos da America do Sul Ltda.  Barueri Brazil 100.00 Freudenberg NoK-Componentes Brasil Ltda.  Barueri Brazil 100.00 Freudenberg-NoK-Componentes Brasil Ltda.  Diadema Brazil 75.00 Klüber Lubrication Lubrificantes Especiais Ltda.  Barueri Brazil 100.00 SurTec do Brasil Ltda.  Valinhos Brazil 100.00 SurTec do Brasil Ltda.  Rio de Janeiro Brazil 100.00 SurTec do Brasil Ltda.  Rio de Janeiro Brazil 100.00 Vector Tecnologia do Brasil Ltda.  Rio de Janeiro Brazil 100.00 Vector Tecnologia do Brasil Ltda.  Rio de Janeiro Brazil 100.00 Freudenberg Productos del Hogar Ltda.  Rios de Janeiro Brazil 100.00 Freudenberg Productos del Hogar Ltda.  Santiago de Chile Chile 100.00 Freudenberg Productos del Hogar Ltda.  Santiago de Chile Chile 100.00 Rugmann Dalian Co. Ltd.  Dalian China 40.00 Burgmann Bhanghail Ltd.  Santiago de Chile Chile 100.00 Burgmann Shanghail Ltd.  Shanghai China 40.00 Chem-Trend (Shanghai) Tuding Co. Ltd.  Shanghai China 100.00 Chem-Trend (Shanghai) Co., Ltd.  Shanghai China 100.00 Chem-Trend Chemicals (Shanghai) Co., Ltd.  Shanghai China 50.00 Freudenberg & Vilene International (Shanghai) Trading Co., Ltd.  Shanghai China 50.00 Freudenberg & Vilene International (Shanghai) Trading Co., Ltd.  Shanghai China 100.00 Freudenberg & Vilene International (Shanghai) Trading Co., Ltd.  Shanghai China 100.00 Freudenberg Home and Cleaning Solutions (Ningbo) Co., Ltd.  Shanghai China 100.00 Freudenberg Management (Shanghai) Co. Ltd.  Shanghai China 100.00 Freudenberg Politex Ltd.  Shanghai China 100.00 Freudenberg Politex Ltd.  Shanghai China 100.00 Freudenberg Politex Ltd.  Shanghai Ch	Klüber Lubrication Belgium Netherlands S.A.	Dottignies	Belgium	100.00
EagleBurgmann do Brasil Vedacoes Ltda.  Campinas Brazil 100.00 Freudenberg Nao-Tecidos Ltda. Jacareí Brazil 100.00 Freudenberg Produtos do Lar Ltda. São Paulo Brazil 100.00 Freudenberg Produtos do Lar Ltda. Barueri Brazil 100.00 Freudenberg-NOK-Componentes Brasil Ltda. Barueri Brazil 100.00 Klüber Lubrication Lubrificantes Especiais Ltda. Barueri Brazil 100.00 SurTec do Brasil Ltda. Valinhos Brazil 100.00 SurTec do Brasil Ltda. Valinhos Brazil 100.00 SurTec do Brasil Ltda. Valinhos Brazil 100.00 Freudenberg Profuctos del Hogar Ltda. Rio de Janeiro Brazil 100.00 Freudenberg Productos del Hogar Ltda. Guarulhos Brazil 100.00 Klüber Lubrication Chile Ltda. Santiago de Chile Chile 100.00 Klüber Lubrication Chile Ltda. Santiago de Chile Chile 100.00 Burgmann Dalian Co. Ltd. Dalian China 40.00 Burgmann Shanghai Ltd. Shanghai China 40.00 Chem-Trend (Shanghai) Trading Co. Ltd. Shanghai China 100.00 Chem-Trend (Shanghai) Co., Ltd. Shanghai China 100.00 Chem-Trend (Shanghai) Co., Ltd. Shanghai China 100.00 Chem-Trend Chemicals (Shanghai) Co., Ltd. Shanghai China 100.00 EagleBurgmann Technology (Shanghai) Co., Ltd. Shanghai China 100.00 EagleBurgmann Technology (Shanghai) Co., Ltd. Shanghai China 100.00 Freudenberg & Vilene International (Shangha) Trading Co., Ltd. Shanghai China 100.00 Freudenberg & Vilene International (Shanghai) Trading Co., Ltd. Shanghai China 100.00 Freudenberg & Vilene International (Shanghai) Trading Co., Ltd. Shanghai China 100.00 Freudenberg Household Products (Suzhou) Co. Ltd. Shanghai China 100.00 Freudenberg Mousehold Products (Suzhou) Co. Ltd. Shanghai China 100.00 Freudenberg Maelacal Plastic & Metal Manufacturing (Shenzhen) Co., Shenzhen China Freudenberg Medical Plastic & Metal Manufacturing (Shenzhen) Co., Shenzhen China Freudenberg Spunweb (Shanghai) Co. Ltd. Shanghai China 100.00 Freudenberg Politex Ltd. Shanghai China 100.00 Freudenberg Spunweb (Shanghai) Co. Ltd. Shanghai China 100.00 Freudenberg Spunweb (Shanghai) Trading Co., Ltd. Shanghai China 100.00 Freudenberg Spunweb (Shanghai)	Klüber Lubrication Benelux S.A./N.V.	Dottignies	Belgium	100.00
Freudenberg Nao-Tecidos Ltda. Jacareí Brazil 100.00 Freudenberg Produtos do Lar Ltda. São Paulo Brazil 100.00 Freudenberg Servicos Corporativos da America do Sul Ltda. Barueri Brazil 100.00 Freudenberg-NOK-Componentes Brasil Ltda. Diadema Brazil 75.00 Klüber Lubrication Lubrificantes Especiais Ltda. Barueri Brazil 100.00 Surfee do Brazil Ltda. Valinhos Brazil 100.00 Surfee do Brazil Ltda. Rio de Janeiro Brazil 100.00 Vector Tecnologia do Brasil Ltda. Rio de Janeiro Brazil 199.90 Vibracoustic South America Ltda. Guarulhos Brazil 100.00 Hänsel Textil Bulgaria ood Rousse Bulgaria 100.00 Freudenberg Productos del Hogar Ltda. Santiago de Chile 100.00 Klüber Lubrication Chile Ltda. Santiago de Chile 100.00 Burgmann Dalian Co. Ltd. Dalian China 40.00 Burgmann Dalian Co. Ltd. Shanghai China 40.00 Burgmann Shanghai Ltd. Shanghai China 100.00 Chem-Trend (Shanghai) Trading Co. Ltd. Shanghai China 100.00 Chem-Trend (Shanghai) Trading Co. Ltd. Shanghai China 100.00 Chem-Trend Chemicals (Shanghai) Co., Ltd. Shanghai China 100.00 Dichtomatik (China) Co, Ltd. Shanghai China 100.00 EagleBurgmann Technology (Shanghai) Co., Ltd. Tianjin China 50.00 EagleBurgmann Technology (Tianjin) Co., Ltd. Tianjin China 87.50 Freudenberg & Vilene International (Shanghai) Trading Co., Ltd. Shanghai China 87.50 Freudenberg & Vilene International (Shanghai) Trading Co., Ltd. Suzhou China 87.50 Freudenberg & Vilene Norwovens (Suzhou) Co. Ltd. Suzhou China 100.00 Freudenberg Home and Cleaning Solutions (Ningbo) Co., Ltd. Suzhou China 100.00 Freudenberg Home and Cleaning Solutions (Ningbo) Co., Ltd. Suzhou China 100.00 Freudenberg Management (Shanghai) Toc. Ltd. Suzhou China 100.00 Freudenberg Management (Shanghai) Co. Ltd. Suzhou China 100.00 Freudenberg Management (Shanghai) Co. Ltd. Shanghai China 100.00 Freudenberg Management (Shanghai) Co. Ltd. Shanghai China 100.00 Freudenberg Rollex Ltd. Shanghai China 100.	Chem-Trend Industria e Comercio de Produtos Quimicos Ltda.	Valinhos	Brazil	100.00
Freudenberg Produtos do Lar Ltda. São Paulo Brazil 100.00 Freudenberg Servicos Corporativos da America do Sul Ltda. Barueri Brazil 100.00 Freudenberg-NOK-Componentes Brasil Ltda. Diadema Brazil 75.00 Klüber Lubrication Lubrificantes Especiais Ltda. Barueri Brazil 100.00 SurTec do Brasil Ltda. Valinhos Brazil 100.00 SurTec do Brasil Ltda. Valinhos Brazil 100.00 SurTec do Brasil Ltda. Valinhos Brazil 100.00 SurTec do Brasil Ltda. Guarulhos Brazil 100.00 Hainsel Textil Bulgaria ood Rousse Bulgaria 100.00 Freudenberg Productos del Hogar Ltda. Santiago de Chile Chile 100.00 Freudenberg Productos del Hogar Ltda. Santiago de Chile Chile 100.00 Burgmann Dalian Co. Ltd. Santiago de Chile Chile 100.00 Burgmann Shanghai Ltd. Shanghai China 40.00 Changchun Integral Accumulator Co., Ltd. Shanghai China 100.00 Chem-Trend (Shanghai) Trading Co. Ltd. Shanghai China 100.00 Chem-Trend (Shanghai) Trading Co. Ltd. Shanghai China 100.00 EagleBurgmann Technology (Shanghai) Co., Ltd. Shanghai China 100.00 EagleBurgmann Technology (Shanghai) Co., Ltd. Shanghai China 50.00 EagleBurgmann Technology (Tianjin) Co., Ltd. Tianjin China 50.00 EagleBurgmann Technology (Tianjin) Co., Ltd. Nantong China 87.50 Freudenberg & Vilene International (Shanghai) Trading Co., Ltd. Shanghai China 87.50 Freudenberg & Vilene Nonwovens (Suzhou) Co. Ltd. Suzhou China 87.50 Freudenberg & Vilene Nonwovens (Suzhou) Co., Ltd. Suzhou China 87.50 Freudenberg Household Products (Suzhou) Co., Ltd. Suzhou China 100.00 Freudenberg Household Products (Suzhou) Co., Ltd. Suzhou China 100.00 Freudenberg Household Products (Suzhou) Co., Ltd. Shanghai China 100.00 Freudenberg Household Products (Suzhou) Co., Ltd. Shanghai China 100.00 Freudenberg Household Products (Suzhou) Co., Ltd. Shanghai China 100.00 Freudenberg Household Products (Suzhou) Co., Ltd. Shanghai China 100.00 Freudenberg Household Products (Suzhou) Co., Ltd. Shanghai China 100.00 Freudenberg Roelical Plastic & Metal Manufacturing (Shenzhen) Co., Ltd. Shanghai China 100.00 Freudenberg Roel Estate (Yantai) Co	EagleBurgmann do Brasil Vedacoes Ltda.	Campinas	Brazil	75.00
Freudenberg Servicos Corporativos da America do Sul Ltda. Diadema Brazil 75.00 Klüber Lubrication Lubrificantes Especiais Ltda. Barueri Brazil 100.00 Surfee do Brasil Ltda. Valinhos Brazil 100.00 Surfee do Brasil Ltda. Rio de Janeiro Brazil 100.00 Vector Tecnologia do Brasil Ltda. Rio de Janeiro Brazil 199.90 Vector Tecnologia do Brasil Ltda. Guarulhos Brazil 100.00 Hänsel Textil Bulgaria ood Rousse Bulgaria 100.00 Freudenberg Productos del Hogar Ltda. Santiago de Chile Chile 100.00 Klüber Lubrication Chile Ltda. Santiago de Chile Chile 100.00 Klüber Lubrication Chile Ltda. Santiago de Chile Chile 100.00 Burgmann Dalian Co. Ltd. Dalian China 40.00 Burgmann Shanghai Ltd. Shanghai China 40.00 Changchun Integral Accumulator Co., Ltd. Changchun China 100.00 Chem-Trend (Shanghai) Trading Co. Ltd. Shanghai China 100.00 Chem-Trend Chemicals (Shanghai) Co., Ltd. Shanghai China 100.00 EagleBurgmann Technology (Shanghai) Co., Ltd. Shanghai China 100.00 EagleBurgmann Technology (Shanghai) Co., Ltd. Shanghai China 50.00 EagleBurgmann Technology (Tianjin) Co., Ltd. Tianjin China 50.00 Freudenberg & Vilene Interritinings (Nantong) Co. Ltd. Nantong China 87.50 Freudenberg & Vilene Interritinings (Nantong) Co. Ltd. Shanghai China 87.50 Freudenberg & Vilene Interritinings (Nantong) Co., Ltd. Suzhou China 87.50 Freudenberg Household Products (Suzhou) Co., Ltd. Suzhou China 100.00 Freudenberg Home and Cleaning Solutions (Ningbo) Co., Ltd. Suzhou China 100.00 Freudenberg Home and Cleaning Solutions (Ningbo) Co., Ltd. Suzhou China 100.00 Freudenberg Household Products (Suzhou) Co., Ltd. Suzhou China 100.00 Freudenberg Medical Plastic & Metal Manufacturing (Shenzhen) Co., Ltd. Shanghai China 100.00 Freudenberg Roel Estate (Yantai) Co. Ltd. Shanghai China 100.00 Freudenberg Roel Estate (Yantai) Co. Ltd. Shanghai China 100.00 Freudenberg Roel Estate (Yantai) Co. Ltd. Shanghai China 100.00 Freudenberg Roel Estate (Yantai) Co. Ltd. Shanghai China 100.00 Freudenberg Roel Estate (Yantai) Co. Ltd. Shanghai China 100.00	Freudenberg Nao-Tecidos Ltda.	Jacareí	Brazil	100.00
Freudenberg-NOK-Componentes Brasil Ltda.    Diadema   Brazil   100.00	Freudenberg Produtos do Lar Ltda.	São Paulo	Brazil	100.00
Klüber Lubrication Lubrificantes Especiais Ltda.  Barueri Brazil 100.00  SurTec do Brasil Ltda.  Valinhos Brazil 100.00  Vector Tecnologia do Brasil Ltda.  Rio de Janeiro Brazil 99.90  Vibracoustic South America Ltda.  Guarulhos Brazil 100.00  Hänsel Textil Bulgaria ood Rousse Bulgaria 100.00  Freudenberg Productos del Hogar Ltda.  Santiago de Chile Chile 100.00  Klüber Lubrication Chile Ltda.  Santiago de Chile Chile 100.00  Burgmann Dalian Co. Ltd.  Dalian China 40.00  Burgmann Shanghai Ltd.  Shanghai China 100.00  Chem-Trend (Shanghai) Trading Co. Ltd.  Shanghai China 100.00  Chem-Trend (Shanghai) Trading Co. Ltd.  Shanghai China 100.00  Chem-Trend Chemicals (Shanghai) Co., Ltd.  Shanghai China 100.00  EagleBurgmann Technology (Shanghai) Co., Ltd.  Shanghai China 50.00  EagleBurgmann Technology (Tianjin) Co., Ltd.  Tianjin China 50.00  Freudenberg & Vilene Interlinings (Nantong) Co. Ltd.  Shanghai China 87.50  Freudenberg & Vilene International (Shanghai) Trading Co., Ltd.  Syahou China 87.50  Freudenberg & Vilene Nowovens (Suzhou) Co. Ltd.  Suzhou China 100.00  Freudenberg Home and Cleaning Solutions (Ningbo) Co., Ltd.  Suzhou China 100.00  Freudenberg Home and Cleaning Solutions (Ningbo) Co., Ltd.  Suzhou China 100.00  Freudenberg Home and Cleaning Solutions (Ningbo) Co., Ltd.  Suzhou China 100.00  Freudenberg Home and Cleaning Solutions (Ningbo) Co., Ltd.  Suzhou China 100.00  Freudenberg Home and Cleaning Solutions (Ningbo) Co., Ltd.  Suzhou China 100.00  Freudenberg Home and Cleaning Solutions (Ningbo) Co., Ltd.  Suzhou China 100.00  Freudenberg Rodical Plastic & Metal Manufacturing (Shenzhen) Co., Ltd.  Shanghai China 100.00  Freudenberg Rodical Plastic & Metal Manufacturing (Shenzhen) Co., Ltd.  Shanghai China 100.00  Freudenberg Real Estate (Yantai) Co. Ltd.  Shanghai China 100.00  Freudenberg Politex Ltd.  Shanghai China 100.00  Freudenberg Filter (Chengdu) Co. Ltd.  Shanghai China 100.00	Freudenberg Servicos Corporativos da America do Sul Ltda.	Barueri	Brazil	100.00
SurTec do Brasil Ltda.  Valinhos  Brazil  100.00  Vector Tecnologia do Brasil Ltda.  Rio de Janeiro  Brazil  99.90  Vibracoustic South America Ltda.  Guarulhos  Brazil  100.00  Freudenberg Productos del Hogar Ltda.  Santiago de Chile  Chile  100.00  Rüber Lubrication Chile Ltda.  Santiago de Chile  Chile  100.00  Burgmann Dallan Co. Ltd.  Burgmann Shanghai Ltd.  Shanghai  China  40.00  Changchun Integral Accumulator Co., Ltd.  Changchun China  China  100.00  Chem-Trend (Shanghai) Trading Co. Ltd.  Shanghai  China  100.00  Chem-Trend Chemicals (Shanghai) Co., Ltd.  Shanghai  China  100.00  Chem-Trend Chemicals (Shanghai) Co., Ltd.  Shanghai  China  100.00  Chem-Trend Chemicals (Shanghai) Co., Ltd.  Shanghai  China  100.00  Freudenberg & Vilene International (Shanghai) Trading Co., Ltd.  Shanghai  China  Shanghai  China  So.00  Freudenberg & Vilene International (Shanghai) Trading Co., Ltd.  Suzhou  China  100.00  Freudenberg Home and Cleaning Solutions (Ningbo) Co., Ltd.  Suzhou  China  100.00  Freudenberg Management (Shanghai) Co. Ltd.  Shanghai  China  100.00  Freudenberg Management (Shanghai) Co., Ltd.  Shanghai  China  100.00  Freudenberg Medical Plastic & Metal Manufacturing (Shenzhen) Co., Ltd.  Shanghai  China  100.00  Freudenberg Real Estate (Yantai) Co. Ltd.  Shanghai  China  100.00  Freudenberg Real Estate (Yantai) Co. Ltd.  Shanghai  China  100.00  Freudenberg Spunweb (Shanghai) Trading Co., Ltd.  Shanghai  China  100.00  Freudenberg Real Estate (Yantai) Co. Ltd.  Shanghai  China  100.00  Freudenberg Spunweb (Shanghai) Trading Co., Ltd.  Shanghai  China  100.00  Freudenberg Politex Ltd.  Shanghai  China  100.00  Freudenberg Politex Ltd.  Shanghai  China  100.00  Freudenberg Fleur (Chengdu) Co. Ltd.  Shanghai  China  100.00  Freudenberg Fleurdenberg Fleur (Chengdu) Co. Ltd.  Shanghai  China  37.50	Freudenberg-NOK-Componentes Brasil Ltda.	Diadema	Brazil	75.00
Vector Tecnologia do Brasil Ltda.         Rio de Janeiro         Brazil         99.90           Vibracoustic South America Ltda.         Guarulhos         Brazil         100.00           Hänsel Textil Bulgaria ood         Rousse         Bulgaria         100.00           Freudenberg Productos del Hogar Ltda.         Santiago de Chile         Chile         100.00           Klüber Lubrication Chile Ltda.         Santiago de Chile         Chile         100.00           Burgmann Dalian Co. Ltd.         Dalian         China         40.00           Burgmann Shanghail Ltd.         Shanghai         China         40.00           Changchun Integral Accumulator Co., Ltd.         Changchun China         100.00           Chem-Trend (Shanghai) Trading Co. Ltd.         Shanghai         China         100.00           Chem-Trend (Shanghai) Trading Co., Ltd.         Shanghai         China         100.00           Chem-Trend Chemicals (Shanghai) Co., Ltd.         Shanghai         China         100.00           Chem-Trend Chemicals (Shanghai) Co., Ltd.         Shanghai         China         100.00           EagleBurgmann Technology (Shanghai) Co., Ltd.         Shanghai         China         50.00           EagleBurgmann Technology (Shanghai) Co., Ltd.         Tianjin         China         50.00 <t< td=""><td>Klüber Lubrication Lubrificantes Especiais Ltda.</td><td>Barueri</td><td>Brazil</td><td>100.00</td></t<>	Klüber Lubrication Lubrificantes Especiais Ltda.	Barueri	Brazil	100.00
Vibracoustic South America Ltda.  Guarulhos  Rousse  Bulgaria  100.00  Freudenberg Productos del Hogar Ltda.  Klüber Lubrication Chile Ltda.  Santiago de Chile  Chile  100.00  Klüber Lubrication Chile Ltda.  Santiago de Chile  Chile  100.00  Burgmann Dalian Co. Ltd.  Dalian  China  40.00  Burgmann Shanghai Ltd.  Shanghai  China  100.00  Changchun Integral Accumulator Co., Ltd.  Changchun (Shanghai) Trading Co. Ltd.  Changchun (Shanghai) Trading Co. Ltd.  Shanghai  China  100.00  Chem-Trend (Shanghai) Trading Co., Ltd.  Shanghai  China  100.00  Chem-Trend Chemicals (Shanghai) Co., Ltd.  Shanghai  China  100.00  EagleBurgmann Technology (Shanghai) Co., Ltd.  Shanghai  China  100.00  EagleBurgmann Technology (Tianjin) Co., Ltd.  Tianjin  China  50.00  Freudenberg & Vilene International (Shanghai) Trading Co., Ltd.  Shanghai  China  87.50  Freudenberg & Vilene International (Shanghai) Trading Co., Ltd.  Suzhou  China  87.50  Freudenberg Home and Cleaning Solutions (Ningbo) Co., Ltd.  Ningbo  China  100.00  Freudenberg Household Products (Suzhou) Co., Ltd.  Suzhou  China  100.00  Freudenberg Management (Shanghai) Co., Ltd.  Shanghai  China  100.00  Freudenberg Management (Shanghai) Co., Ltd.  Shanghai  China  100.00  Freudenberg Medical Plastic & Metal Manufacturing (Shenzhen) Co., Ltd.  Shanghai  China  100.00  Freudenberg Real Estate (Yantai) Co. Ltd.  Shanghai  China  100.00  Freudenberg Real Estate (Yantai) Co. Ltd.  Shanghai  China  100.00  Freudenberg Spunweb (Shanghai) Trading Co., Ltd.  Shanghai  China  100.00  Freudenberg Spunweb (Shanghai) Trading Co., Ltd.  Shanghai  China  100.00  Freudenberg Spunweb (Shanghai) Trading Co., Ltd.  Shanghai  China  100.00  Freudenberg Spunweb (Shanghai) Trading Co., Ltd.  Shanghai  China  100.00  Freudenberg Politex Ltd.  Shanghai  China  100.00  Freudenberg Politex Ltd.  Shanghai  China  100.00  Freudenberg Spunweb (Shanghai) Trading Co., Ltd.  Shanghai  China  100.00	SurTec do Brasil Ltda.	Valinhos	Brazil	100.00
Hänsel Textil Bulgaria ood Freudenberg Productos del Hogar Ltda.  Santiago de Chile Chile 100.00 Klüber Lubrication Chile Ltda. Santiago de Chile Chile 100.00 Burgmann Dalian Co. Ltd. Dalian China 40.00 Burgmann Shanghai Ltd. Shanghai China 100.00 Changchun Integral Accumulator Co., Ltd. Changchun Integral Accumulator Co., Ltd. Changchun Integral Accumulator Co., Ltd. Shanghai China 100.00 Chem-Trend (Shanghai) Trading Co. Ltd. Shanghai China 100.00 Chem-Trend Chemicals (Shanghai) Co., Ltd. Shanghai China 100.00 Chem-Trend Chemicals (Shanghai) Co., Ltd. Shanghai China 100.00 EagleBurgmann Technology (Fianjin) Co., Ltd. Shanghai China 50.00 EagleBurgmann Technology (Tianjin) Co., Ltd. Tianjin China 50.00 Freudenberg & Vilene Interinational (Shanghai) Trading Co., Ltd. Shanghai China 87.50 Freudenberg & Vilene International (Shanghai) Trading Co., Ltd. Suzhou China 87.50 Freudenberg Home and Cleaning Solutions (Ningbo) Co., Ltd. Ningbo China 100.00 Freudenberg Home and Cleaning Solutions (Ningbo) Co., Ltd. Suzhou China 100.00 Freudenberg Home Anagement (Shanghai) Co., Ltd. Suzhou China 100.00 Freudenberg Management (Shanghai) Co., Ltd. Shanghai China 100.00 Freudenberg Medical Plastic & Metal Manufacturing (Shenzhen) Co., Ltd. Shanghai China 100.00 Freudenberg Real Estate (Yantai) Co. Ltd. Shanghai China 100.00 Freudenberg Real Estate (Yantai) Co. Ltd. Shanghai China 100.00 Freudenberg Real Estate (Yantai) Co. Ltd. Shanghai China 100.00 Freudenberg Rollex Ltd. Shanghai China 100.00 Freudenberg Rollex Estate (Yantai) Co. Ltd. Shanghai China 100.00 Freudenberg Spunweb (Shanghai) Trading Co., Ltd. Shanghai China 87.50	Vector Tecnologia do Brasil Ltda.	Rio de Janeiro	Brazil	99.90
Freudenberg Productos del Hogar Ltda.  Klüber Lubrication Chile Ltda.  Santiago de Chile Chile 100.00  Burgmann Dalian Co. Ltd. Dalian China 44.00  Burgmann Shanghai Ltd. Shanghai China 44.00  Changchun Integral Accumulator Co., Ltd. Changchun Chem-Trend (Shanghai) Trading Co. Ltd. Shanghai China 100.00  Chem-Trend Chemicals (Shanghai) Co., Ltd. Shanghai China 100.00  Chem-Trend Chemicals (Shanghai) Co., Ltd. Shanghai China 100.00  Chem-Trend Chemicals (Shanghai) Co., Ltd. Shanghai China 100.00  EagleBurgmann Technology (Shanghai) Co., Ltd. Shanghai China 50.00  EagleBurgmann Technology (Tianjin) Co., Ltd. Tianjin China 50.00  Freudenberg & Vilene Interlinings (Nantong) Co. Ltd. Nantong China 87.50  Freudenberg & Vilene International (Shanghai) Trading Co., Ltd. Suzhou China 87.50  Freudenberg Home and Cleaning Solutions (Ningbo) Co., Ltd. Ningbo China 100.00  Freudenberg Household Products (Suzhou) Co., Ltd. Suzhou China 100.00  Freudenberg Management (Shanghai) Co. Ltd. Shanghai China 100.00  Freudenberg Medical Plastic & Metal Manufacturing (Shenzhen) Co., Ltd. Shanghai China 100.00  Freudenberg Real Estate (Yantai) Co. Ltd. Shanghai China 100.00  Freudenberg Real Estate (Yantai) Co. Ltd. Shanghai China 100.00  Freudenberg Real Estate (Yantai) Trading Co., Ltd. Shanghai China 100.00  Freudenberg Spunweb (Shanghai) Trading Co., Ltd. Shanghai China 100.00  Freudenberg Spunweb (Shanghai) Trading Co., Ltd. Shanghai China 37.50	Vibracoustic South America Ltda.	Guarulhos	Brazil	100.00
Klüber Lubrication Chile Ltda.  Burgmann Dalian Co. Ltd.  Dalian China 40.00  Burgmann Shanghai Ltd.  Shanghai China 40.00  Changchun Integral Accumulator Co., Ltd.  Changchun Integral Accumulator Co., Ltd.  Chem-Trend (Shanghai) Trading Co. Ltd.  Shanghai China 100.00  Chem-Trend Chemicals (Shanghai) Co., Ltd.  Shanghai China 100.00  Chem-Trend Chemicals (Shanghai) Co., Ltd.  Shanghai China 100.00  Dichtomatik (China) Co., Ltd.  Shanghai China 100.00  EagleBurgmann Technology (Shanghai) Co., Ltd.  Shanghai China 50.00  EagleBurgmann Technology (Tianjin) Co., Ltd.  Tianjin China 50.00  Freudenberg & Vilene Interlinings (Nantong) Co. Ltd.  Nantong China 87.50  Freudenberg & Vilene International (Shanghai) Trading Co., Ltd.  Shanghai China 87.50  Freudenberg & Vilene Nonwovens (Suzhou) Co. Ltd.  Suzhou China 100.00  Freudenberg Home and Cleaning Solutions (Ningbo) Co., Ltd.  Ningbo China 100.00  Freudenberg Household Products (Suzhou) Co., Ltd.  Suzhou China 100.00  Freudenberg Gluschoul Co., Ltd.  Suzhou China 100.00  Freudenberg Management (Shanghai) Co. Ltd.  Suzhou China 100.00  Freudenberg Management (Shanghai) Co. Ltd.  Shanghai China 100.00  Freudenberg Medical Plastic & Metal Manufacturing (Shenzhen) Co., Ltd.  Shanghai China 100.00  Freudenberg Real Estate (Yantai) Co. Ltd.  Shanghai China 100.00  Freudenberg Real Estate (Yantai) Co. Ltd.  Shanghai China 100.00  Freudenberg Real Estate (Yantai) Co. Ltd.  Shanghai China 100.00  Freudenberg Spunweb (Shanghai) Trading Co., Ltd.  Shanghai China 67.69  Freudenberg Spunweb (Shanghai) Trading Co., Ltd.  Shanghai China 67.69	Hänsel Textil Bulgaria ood	Rousse	Bulgaria	100.00
Burgmann Dalian Co. Ltd.  Burgmann Shanghai Ltd.  Shanghai  China  40.00  Changchun Integral Accumulator Co., Ltd.  Changchun  China  Dichtomatik (China) Co., Ltd.  Shanghai  China  China  China  Dichtomatik (China) Co., Ltd.  Shanghai  China  So.00  EagleBurgmann Technology (Shanghai) Co., Ltd.  Tianjin  China  Shanghai  China  So.00  Freudenberg & Vilene Interlinings (Nantong) Co. Ltd.  Nantong  China  So.00  Freudenberg & Vilene International (Shanghai) Trading Co., Ltd.  Suzhou  China  So.00  Freudenberg Wilene Nonwovens (Suzhou) Co. Ltd.  Suzhou  China  China  So.00  Freudenberg Home and Cleaning Solutions (Ningbo) Co., Ltd.  Ningbo  China  China  So.00  Freudenberg Household Products (Suzhou) Co., Ltd.  Suzhou  China  Chi	Freudenberg Productos del Hogar Ltda.	Santiago de Chile	Chile	100.00
Burgmann Shanghai Ltd. Changchun Integral Accumulator Co., Ltd. Changchun Integral Accumulator Co., Ltd. Changchun Integral Accumulator Co., Ltd. Changchun China Chem-Trend (Shanghai) Trading Co. Ltd. Shanghai China 100.00 Chem-Trend Chemicals (Shanghai) Co., Ltd. Shanghai China 100.00 Dichtomatik (China) Co., Ltd. Shanghai China 100.00 EagleBurgmann Technology (Shanghai) Co., Ltd. Shanghai China 50.00 EagleBurgmann Technology (Tianjin) Co., Ltd. Tianjin China 50.00 Freudenberg & Vilene Interlinings (Nantong) Co. Ltd. Nantong China 87.50 Freudenberg & Vilene International (Shanghai) Trading Co., Ltd. Suzhou China 87.50 Freudenberg & Vilene Nonwovens (Suzhou) Co. Ltd. Suzhou China 100.00 Freudenberg Home and Cleaning Solutions (Ningbo) Co., Ltd. Ningbo China 100.00 Freudenberg Household Products (Suzhou) Co., Ltd. Suzhou China 100.00 Freudenberg Management (Shanghai) Co. Ltd. Shanghai China 100.00 Freudenberg Management (Shanghai) Co. Ltd. Shanghai China 100.00 Freudenberg Medical Plastic & Metal Manufacturing (Shenzhen) Co., Ltd. Shanghai China 100.00 Freudenberg Real Estate (Yantai) Co. Ltd. Shanghai China 100.00 Freudenberg Real Estate (Yantai) Co. Ltd. Shanghai China 100.00 Freudenberg Spunweb (Shanghai) Trading Co., Ltd. Shanghai China 100.00 Freudenberg Spunweb (Shanghai) Trading Co., Ltd. Shanghai China 87.50	Klüber Lubrication Chile Ltda.	Santiago de Chile	Chile	100.00
Changchun Integral Accumulator Co., Ltd. Changchun Chem-Trend (Shanghai) Trading Co. Ltd. Shanghai China 100.00 Chem-Trend Chemicals (Shanghai) Co., Ltd. Shanghai China 100.00 Dichtomatik (China) Co., Ltd. Shanghai China 100.00 EagleBurgmann Technology (Shanghai) Co., Ltd. Shanghai China 50.00 EagleBurgmann Technology (Tianjin) Co., Ltd. Tianjin China 50.00 Freudenberg & Vilene Interlinings (Nantong) Co. Ltd. Nantong China 87.50 Freudenberg & Vilene International (Shanghai) Trading Co., Ltd. Shanghai China 87.50 Freudenberg & Vilene Nonwovens (Suzhou) Co. Ltd. Suzhou China 87.50 Freudenberg Home and Cleaning Solutions (Ningbo) Co., Ltd. Ningbo China 100.00 Freudenberg Household Products (Suzhou) Co., Ltd. Suzhou China 100.00 Freudenberg IT (Suzhou) Co., Ltd. Suzhou China 100.00 Freudenberg Management (Shanghai) Co. Ltd. Shanghai China 100.00 Freudenberg Medical Plastic & Metal Manufacturing (Shenzhen) Co., Ltd. Shanghai China 100.00 Freudenberg Real Estate (Yantai) Co. Ltd. Shanghai China 100.00 Freudenberg Real Estate (Yantai) Co. Ltd. Shanghai China 100.00 Freudenberg Spunweb (Shanghai) Trading Co., Ltd. Shanghai China 100.00 Freudenberg Spunweb (Shanghai) Trading Co., Ltd. Shanghai China 87.50	Burgmann Dalian Co. Ltd.	Dalian	China	40.00
Chem-Trend (Shanghai) Trading Co. Ltd.  Shanghai China 100.00 Chem-Trend Chemicals (Shanghai) Co., Ltd. Shanghai China 100.00 Dichtomatik (China) Co., Ltd. Shanghai China 100.00 EagleBurgmann Technology (Shanghai) Co., Ltd. Shanghai China 50.00 EagleBurgmann Technology (Tianjin) Co., Ltd. Tianjin China 50.00 Freudenberg & Vilene Interlinings (Nantong) Co. Ltd. Nantong China 87.50 Freudenberg & Vilene International (Shanghai) Trading Co., Ltd. Shanghai China 87.50 Freudenberg & Vilene Nonwovens (Suzhou) Co. Ltd. Suzhou China 87.50 Freudenberg Home and Cleaning Solutions (Ningbo) Co., Ltd. Ningbo China 100.00 Freudenberg Household Products (Suzhou) Co., Ltd. Suzhou China 100.00 Freudenberg IT (Suzhou) Co., Ltd. Suzhou China 100.00 Freudenberg Management (Shanghai) Co. Ltd. Shanghai China 100.00 Freudenberg Medical Plastic & Metal Manufacturing (Shenzhen) Co., Ltd. Shanghai China 100.00 Freudenberg Real Estate (Yantai) Co. Ltd. Yantai China 100.00 Freudenberg Spunweb (Shanghai) Trading Co., Ltd. Shanghai China 100.00 Freudenberg Spunweb (Shanghai) Trading Co., Ltd. Shanghai China 100.00 Freudenberg Spunweb (Shanghai) Trading Co., Ltd. Shanghai China 87.50	Burgmann Shanghai Ltd.	Shanghai	China	40.00
Chem-Trend Chemicals (Shanghai) Co., Ltd.  Dichtomatik (China) Co., Ltd.  Shanghai  China  100.00  EagleBurgmann Technology (Shanghai) Co., Ltd.  Shanghai  China  50.00  EagleBurgmann Technology (Tianjin) Co., Ltd.  Tianjin  China  50.00  Freudenberg & Vilene Interlinings (Nantong) Co. Ltd.  Nantong  China  87.50  Freudenberg & Vilene International (Shanghai) Trading Co., Ltd.  Shanghai  China  87.50  Freudenberg & Vilene Nonwovens (Suzhou) Co. Ltd.  Suzhou  China  87.50  Freudenberg Home and Cleaning Solutions (Ningbo) Co., Ltd.  Ningbo  China  100.00  Freudenberg Household Products (Suzhou) Co., Ltd.  Suzhou  China  100.00  Freudenberg IT (Suzhou) Co., Ltd.  Suzhou  China  100.00  Freudenberg Management (Shanghai) Co. Ltd.  Shanghai  China  100.00  Freudenberg Medical Plastic & Metal Manufacturing (Shenzhen) Co., Ltd.  Shanghai  China  100.00  Freudenberg Real Estate (Yantai) Co. Ltd.  Yantai  China  100.00  Freudenberg Spunweb (Shanghai) Trading Co., Ltd.  Shanghai  China  100.00  Freudenberg Spunweb (Shanghai) Trading Co., Ltd.  Chengdu  China  87.50	Changchun Integral Accumulator Co., Ltd.	Changchun	China	100.00
Dichtomatik (China) Co., Ltd.  EagleBurgmann Technology (Shanghai) Co., Ltd.  EagleBurgmann Technology (Tianjin) Co., Ltd.  EagleBurgmann Technology (Tianjin) Co., Ltd.  Tianjin  China  50.00  Freudenberg & Vilene Interlinings (Nantong) Co. Ltd.  Nantong  China  87.50  Freudenberg & Vilene International (Shanghai) Trading Co., Ltd.  Shanghai  China  87.50  Freudenberg & Vilene Nonwovens (Suzhou) Co. Ltd.  Suzhou  China  87.50  Freudenberg Home and Cleaning Solutions (Ningbo) Co., Ltd.  Ningbo  China  100.00  Freudenberg Household Products (Suzhou) Co., Ltd.  Suzhou  China  100.00  Freudenberg IT (Suzhou) Co., Ltd.  Suzhou  China  100.00  Freudenberg Management (Shanghai) Co. Ltd.  Shanghai  China  100.00  Freudenberg Medical Plastic & Metal Manufacturing (Shenzhen) Co., Ltd.  Shanghai  China  100.00  Freudenberg Real Estate (Yantai) Co. Ltd.  Yantai  China  100.00  Freudenberg Spunweb (Shanghai) Trading Co., Ltd.  Shanghai  China  100.00  Freudenberg Spunweb (Shanghai) Trading Co., Ltd.  Shanghai  China  87.50  China  100.00  Freudenberg Spunweb (Shanghai) Trading Co., Ltd.  China  China  67.69	Chem-Trend (Shanghai) Trading Co. Ltd.	Shanghai	China	100.00
EagleBurgmann Technology (Shanghai) Co., Ltd.  EagleBurgmann Technology (Tianjin) Co., Ltd.  Tianjin  China  50.00  Freudenberg & Vilene Interlinings (Nantong) Co. Ltd.  Nantong  China  87.50  Freudenberg & Vilene International (Shanghai) Trading Co., Ltd.  Freudenberg & Vilene Nonwovens (Suzhou) Co. Ltd.  Suzhou  China  87.50  Freudenberg Home and Cleaning Solutions (Ningbo) Co., Ltd.  Ningbo  China  100.00  Freudenberg Household Products (Suzhou) Co., Ltd.  Suzhou  China  100.00  Freudenberg IT (Suzhou) Co., Ltd.  Suzhou  China  100.00  Freudenberg Management (Shanghai) Co. Ltd.  Shanghai  China  100.00  Freudenberg Medical Plastic & Metal Manufacturing (Shenzhen) Co., Ltd.  Shanghai  China  100.00  Freudenberg Politex Ltd.  Shanghai  China  100.00  Freudenberg Real Estate (Yantai) Co. Ltd.  Yantai  China  100.00  Freudenberg Spunweb (Shanghai) Trading Co., Ltd.  Shanghai  China  100.00  Freudenberg Vilene Filter (Chengdu) Co. Ltd.  Chengdu  China  87.50	Chem-Trend Chemicals (Shanghai) Co., Ltd.	Shanghai	China	100.00
EagleBurgmann Technology (Tianjin) Co., Ltd. Freudenberg & Vilene Interlinings (Nantong) Co. Ltd. Nantong China 87.50 Freudenberg & Vilene International (Shanghai) Trading Co., Ltd. Shanghai China 87.50 Freudenberg & Vilene Nonwovens (Suzhou) Co. Ltd. Suzhou China 87.50 Freudenberg Home and Cleaning Solutions (Ningbo) Co., Ltd. Ningbo China 100.00 Freudenberg Household Products (Suzhou) Co., Ltd. Suzhou China 100.00 Freudenberg IT (Suzhou) Co., Ltd. Suzhou China 100.00 Freudenberg Management (Shanghai) Co. Ltd. Shanghai China 100.00 Freudenberg Medical Plastic & Metal Manufacturing (Shenzhen) Co., Ltd. Shanghai China 100.00 Freudenberg Politex Ltd. Shanghai China 100.00 Freudenberg Real Estate (Yantai) Co. Ltd. Yantai China 100.00 Freudenberg Spunweb (Shanghai) Trading Co., Ltd. Shanghai China 100.00 Freudenberg Spunweb (Shanghai) Trading Co., Ltd. Chengdu China 87.50	Dichtomatik (China) Co., Ltd.	Shanghai	China	100.00
Freudenberg & Vilene Interlinings (Nantong) Co. Ltd.  Freudenberg & Vilene International (Shanghai) Trading Co., Ltd.  Freudenberg & Vilene International (Shanghai) Trading Co., Ltd.  Freudenberg & Vilene Nonwovens (Suzhou) Co. Ltd.  Freudenberg Home and Cleaning Solutions (Ningbo) Co., Ltd.  Freudenberg Home and Cleaning Solutions (Ningbo) Co., Ltd.  Freudenberg Household Products (Suzhou) Co., Ltd.  Freudenberg IT (Suzhou) Co., Ltd.  Freudenberg Management (Shanghai) Co. Ltd.  Freudenberg Management (Shanghai) Co. Ltd.  Freudenberg Medical Plastic & Metal Manufacturing (Shenzhen) Co., Ltd.  Freudenberg Politex Ltd.  Freudenberg Real Estate (Yantai) Co. Ltd.  Freudenberg Spunweb (Shanghai) Trading Co., Ltd.  Freudenberg Spunweb (Shanghai) Trading Co., Ltd.  Freudenberg Vilene Filter (Chengdu) Co. Ltd.  Chengdu  China  87.50  China  87.50  China  67.69  Freudenberg Vilene Filter (Chengdu) Co. Ltd.  Chengdu  China  87.50	EagleBurgmann Technology (Shanghai) Co., Ltd.	Shanghai	China	50.00
Freudenberg & Vilene International (Shanghai) Trading Co., Ltd.  Freudenberg & Vilene Nonwovens (Suzhou) Co. Ltd.  Freudenberg Home and Cleaning Solutions (Ningbo) Co., Ltd.  Freudenberg Household Products (Suzhou) Co., Ltd.  Freudenberg IT (Suzhou) Co., Ltd.  Freudenberg IT (Suzhou) Co., Ltd.  Freudenberg Management (Shanghai) Co. Ltd.  Freudenberg Management (Shanghai) Co. Ltd.  Freudenberg Medical Plastic & Metal Manufacturing (Shenzhen) Co., Ltd.  Freudenberg Politex Ltd.  Freudenberg Real Estate (Yantai) Co. Ltd.  Freudenberg Spunweb (Shanghai) Trading Co., Ltd.  Freudenberg Spunweb (Shanghai) Trading Co., Ltd.  Freudenberg Vilene Filter (Chengdu) Co. Ltd.  Chengdu  China  87.50  China  87.50  China  67.69  Freudenberg Vilene Filter (Chengdu) Co. Ltd.	EagleBurgmann Technology (Tianjin) Co., Ltd.	Tianjin	China	50.00
Freudenberg & Vilene Nonwovens (Suzhou) Co. Ltd.  Freudenberg Home and Cleaning Solutions (Ningbo) Co., Ltd.  Ningbo China 100.00  Freudenberg Household Products (Suzhou) Co., Ltd. Suzhou China 100.00  Freudenberg IT (Suzhou) Co., Ltd. Suzhou China 100.00  Freudenberg Management (Shanghai) Co. Ltd. Shanghai China 100.00  Freudenberg Medical Plastic & Metal Manufacturing (Shenzhen) Co., Ltd. Shanghai China 100.00  Freudenberg Politex Ltd. Shanghai China 100.00  Freudenberg Real Estate (Yantai) Co. Ltd. Yantai China 100.00  Freudenberg Spunweb (Shanghai) Trading Co., Ltd. Shanghai China 67.69  Freudenberg Vilene Filter (Chengdu) Co. Ltd.	Freudenberg & Vilene Interlinings (Nantong) Co. Ltd.	Nantong	China	87.50
Freudenberg Home and Cleaning Solutions (Ningbo) Co., Ltd.  Ningbo China 100.00 Freudenberg Household Products (Suzhou) Co., Ltd. Suzhou China 100.00 Freudenberg IT (Suzhou) Co., Ltd. Suzhou China 100.00 Freudenberg Management (Shanghai) Co. Ltd. Shanghai China 100.00 Freudenberg Medical Plastic & Metal Manufacturing (Shenzhen) Co., Ltd. Shanghai China 100.00 Freudenberg Politex Ltd. Shanghai China 100.00 Freudenberg Real Estate (Yantai) Co. Ltd. Yantai China 100.00 Freudenberg Spunweb (Shanghai) Trading Co., Ltd. Shanghai China 67.69 Freudenberg Vilene Filter (Chengdu) Co. Ltd.	Freudenberg & Vilene International (Shanghai) Trading Co., Ltd.	Shanghai	China	87.50
Freudenberg Household Products (Suzhou) Co., Ltd.  Freudenberg IT (Suzhou) Co., Ltd.  Freudenberg Management (Shanghai) Co. Ltd.  Freudenberg Medical Plastic & Metal Manufacturing (Shenzhen) Co., Ltd.  Freudenberg Politex Ltd.  Freudenberg Real Estate (Yantai) Co. Ltd.  Freudenberg Spunweb (Shanghai) Trading Co., Ltd.  Freudenberg Vilene Filter (Chengdu) Co. Ltd.  Suzhou  China  100.00  Shanghai  China  100.00  Freudenberg Politex Ltd.  Yantai  China  100.00  Freudenberg Spunweb (Shanghai) Trading Co., Ltd.  Shanghai  China  67.69	Freudenberg & Vilene Nonwovens (Suzhou) Co. Ltd.	Suzhou	China	87.50
Freudenberg IT (Suzhou) Co., Ltd.  Freudenberg Management (Shanghai) Co. Ltd.  Freudenberg Medical Plastic & Metal Manufacturing (Shenzhen) Co., Ltd.  Freudenberg Politex Ltd.  Freudenberg Real Estate (Yantai) Co. Ltd.  Freudenberg Spunweb (Shanghai) Trading Co., Ltd.  Freudenberg Vilene Filter (Chengdu) Co. Ltd.  Suzhou  China  100.00  China  100.00  Freudenberg Politex Ltd.  Yantai  China  100.00  Freudenberg Spunweb (Shanghai) Trading Co., Ltd.  Shanghai  China  67.69  Freudenberg Vilene Filter (Chengdu) Co. Ltd.	Freudenberg Home and Cleaning Solutions (Ningbo) Co., Ltd.	Ningbo	China	100.00
Freudenberg Management (Shanghai) Co. Ltd.  Freudenberg Medical Plastic & Metal Manufacturing (Shenzhen) Co., Ltd.  Freudenberg Politex Ltd.  Freudenberg Real Estate (Yantai) Co. Ltd.  Freudenberg Spunweb (Shanghai) Trading Co., Ltd.  Freudenberg Vilene Filter (Chengdu) Co. Ltd.  Shanghai  China  100.00  China  100.00  Freudenberg Spunweb (Shanghai) Trading Co., Ltd.  Chengdu  China  87.50	Freudenberg Household Products (Suzhou) Co., Ltd.	Suzhou	China	100.00
Freudenberg Medical Plastic & Metal Manufacturing (Shenzhen) Co., Ltd.  Freudenberg Politex Ltd.  Shanghai  China  100.00  Freudenberg Real Estate (Yantai) Co. Ltd.  Yantai  China  100.00  Freudenberg Spunweb (Shanghai) Trading Co., Ltd.  Shanghai  China  67.69  Freudenberg Vilene Filter (Chengdu) Co. Ltd.  Chengdu  China  87.50	Freudenberg IT (Suzhou) Co., Ltd.	Suzhou	China	100.00
Ltd.100.00Freudenberg Politex Ltd.ShanghaiChina100.00Freudenberg Real Estate (Yantai) Co. Ltd.YantaiChina100.00Freudenberg Spunweb (Shanghai) Trading Co., Ltd.ShanghaiChina67.69Freudenberg Vilene Filter (Chengdu) Co. Ltd.ChengduChina87.50	Freudenberg Management (Shanghai) Co. Ltd.	Shanghai	China	100.00
Freudenberg Real Estate (Yantai) Co. Ltd.  Yantai China 100.00 Freudenberg Spunweb (Shanghai) Trading Co., Ltd. Shanghai China 67.69 Freudenberg Vilene Filter (Chengdu) Co. Ltd. Chengdu China 87.50		Shenzhen	China	100.00
Freudenberg Spunweb (Shanghai) Trading Co., Ltd.  Shanghai  China  67.69  Freudenberg Vilene Filter (Chengdu) Co. Ltd.  Chengdu  China  87.50	Freudenberg Politex Ltd.	Shanghai	China	100.00
Freudenberg Vilene Filter (Chengdu) Co. Ltd. Chengdu China 87.50	Freudenberg Real Estate (Yantai) Co. Ltd.	Yantai	China	100.00
	Freudenberg Spunweb (Shanghai) Trading Co., Ltd.	Shanghai	China	67.69
Klüber Lubrication (Shanghai) Co., Ltd. Shanghai China 100.00	Freudenberg Vilene Filter (Chengdu) Co. Ltd.	Chengdu	China	87.50
	Klüber Lubrication (Shanghai) Co., Ltd.	Shanghai	China	100.00

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Company	Location	Country	Share of capital [%]
Klüber Lubrication Industries (Shanghai) Co., Ltd.	Shanghai	China	100.00
SurTec Metal Surface Treatment Technology Co. Ltd.	Hangzhou	China	100.00
Tianjin VIAM Automotive Products Co., Ltd.	Tianjin	China	75.00
Trelleborg Automotive Design (Shanghai) Co. Ltd.	Shanghai	China	100.00
Vibracoustic (Shanghai) Sales and Trading Co. Ltd.	Shanghai	China	100.00
Vibracoustic (Wuxi) Vibration Isolators Co., Ltd.	Wuxi	China	100.00
Vibracoustic (Yantai) Co. Ltd.	Yantai	China	100.00
Vibracoustic CV Air Springs (Yantai) Co. Ltd.	Yantai	China	65.07
Zhangjiagang Trelleborg Kunhwa Automotive Components Co. Ltd.	Zhangjiagang	China	51.00
Freudenberg Medical srl.	San José	Costa Rica	100.00
Chem-Trend A/S	Copenhagen	Denmark	100.00
EagleBurgmann KE A/S	Vejen	Denmark	75.00
EBI Atlantic A/S	Vejen	Denmark	75.00
EBI Middle-East A/S	Vejen	Denmark	60.00
Klüber Lubrication Nordic A/S	Skovlunde	Denmark	100.00
SurTec Scandinavia ApS	Fredericia	Denmark	100.00
OÜ Merinvest	Lääne-Saare vald	Estonia	100.00
Freudenberg Filtration Technologies Finland Oy	Naantali	Finland	100.00
Freudenberg Home and Cleaning Solutions Oy	Espoo	Finland	100.00
Chem-Trend France S.A.S.U.	Entzheim	France	100.00
Corteco SAS	Nantiat	France	100.00
Dichtomatik S.A.S	Mâcon	France	100.00
EagleBurgmann France S.A.S.	Sartrouville	France	75.00
FHP Vileda S.A.	Asnières Sur Seine	France	100.00
Freudenberg Filtration Technologies SAS	Les Ulis	France	100.00
Freudenberg Immobilier SAS	Chamborêt	France	100.00
Freudenberg Joints Elastomères SAS	Langres	France	100.00
Freudenberg Joints Plats SAS	Chamborêt	France	100.00
Freudenberg Performance Materials S.A.S.	Colmar	France	100.00
Freudenberg Sealing Technologies SAS	Langres	France	100.00
Klüber Lubrication France S.A.S.	Valence	France	100.00
SurTec France S.A.S.	Toulouse	France	100.00
Vibracoustic France SAS	Carquefou	France	100.00
Vibracoustic Nantes SAS	Carquefou	France	100.00
FHP Hellas S.A.	Kifissia, Athens	Greece	100.00
Aquabio Ltd.	Worcester	United Kingdom	100.00
Auto Suppliers Limited	Kidderminster	United Kingdom	100.00
Capol (U.K.) Limited	Huddersfield	United Kingdom	100.00
Chem-Trend (UK) Ltd.	Huddersfield	United Kingdom	100.00
Corteco Ltd.	Lutterworth	United Kingdom	100.00
CT Interim Ltd.	Huddersfield	United Kingdom	100.00

Company	Location	Country	Share of capital [%]
CT Interim UK Two LP	Huddersfield	United Kingdom	100.00
Dichtomatik Ltd.	Derby	United Kingdom	100.00
EagleBurgmann Industries UK LP	Warwick	United Kingdom	75.00
EagleBurgmann Industries UK Ltd.	Warwick	United Kingdom	75.00
Filtamark Ltd.	Crewe	United Kingdom	100.00
Freudenberg Filtration Technologies UK Limited	Crewe	United Kingdom	100.00
Freudenberg Household Products LP	Rochdale	United Kingdom	100.00
Freudenberg Limited	Littleborough	United Kingdom	100.00
Freudenberg Oil & Gas Technologies Ltd.	Port Talbot	United Kingdom	100.00
Freudenberg Oil & Gas UK Ltd.	Aberdeen	United Kingdom	100.00
Freudenberg Performance Materials LP	Littleborough	United Kingdom	100.00
Freudenberg Sealing Technologies Limited	North Shields	United Kingdom	100.00
Freudenberg Technical Products LP	North Shields	United Kingdom	100.00
Freudenberg Technical Products Ltd.	North Shields	United Kingdom	100.00
Freudenberg Vileda Ltd.	Rochdale	United Kingdom	100.00
KE-Burgmann UK Ltd.	Congleton	United Kingdom	75.00
Klüber Lubrication Great Britain Ltd.	Huddersfield	United Kingdom	100.00
Metflex Holding Company Ltd	Blackburn	United Kingdom	100.00
Metflex Precision Mouldings Ltd	Blackburn	United Kingdom	100.00
Metflex Property Ltd	Blackburn	United Kingdom	100.00
Techlok Limited	Port Talbot	United Kingdom	100.00
Freudenberg Textile Technologies, S.A.	Guatemala City	Guatemala	100.00
APEC (Asia) Limited	Hong Kong	Hong Kong	100.00
Freudenberg & Vilene Int. Ltd.	Hong Kong	Hong Kong	87.50
Freudenberg Household Products Ltd.	Hong Kong	Hong Kong	100.00
Freudenberg Trading (Hongkong) Ltd.	Hong Kong	Hong Kong	100.00
Japan Vilene (Hong Kong) Ltd.	Hong Kong	Hong Kong	75.00
Jump (Asia) Distributors Ltd	Hong Kong	Hong Kong	100.00
Klüber Lubrication China Ltd.	Hong Kong	Hong Kong	100.00
Vibracoustic Hong Kong Holdings Ltd.	Hong Kong	Hong Kong	100.00
Chem-Trend Chemicals Co. Pvt. Ltd.	Bangalore	India	100.00
Dichtomatik India Seals Private Limited	Bangalore	India	100.00
EagleBurgmann India Pvt. Ltd.	Pune	India	50.00
EagleBurgmann KE Pvt. Ltd.	Chennai	India	75.00
Freudenberg Filtration Technologies India Private Limited	Pune	India	100.00
Freudenberg Gala Household Product Pvt. Ltd.	Mumbai	India	60.00
Freudenberg Performance Materials India Pvt. Ltd.	Chennai	India	100.00
Freudenberg Regional Corporate Center India Pvt. Ltd.	Bangalore	India	100.00
Gimi India Pvt. Ltd.	Bangalore	India	100.00
Klüber Lubrication India Pvt. Ltd.	Bangalore	India	90.00
SurTec Chemicals India Pvt. Ltd.	Bangalore	India	100.00

Company	Location	Country	Share of capital [%]
Vibracoustic India Pvt. Ltd.	Mohali	India	100.00
Vibracoustic Noida Pvt. Ltd.	New Delhi	India	100.00
PT EagleBurgmann Indonesia	Cikarang - Bekasi	Indonesia	24.98
PT Klüber Lubrication Indonesia	Jakarta	Indonesia	100.00
Pars Sealing Systems Co.	Tehran	Iran	75.00
VistaMed Ltd.	Carrick-on-Shannon	Ireland	90.00
Chem-Trend Italy del Dr. Gian Franco Colori S.a.s.	Milan	Italy	100.00
Corteco S.r.l. (a socio unico)	Pinerolo	Italy	100.00
Dichtomatik S.a.s. di Externa Italia S.r.l.	Genoa	Italy	100.00
EagleBurgmann BT S.p.A.	Arcugnano	Italy	75.00
EagleBurgmann Italia S.r.l.	Vimercate	Italy	75.00
Externa Holding S.r.l.	Milan	Italy	100.00
Externa Italia S.r.l.	Pinerolo	Italy	100.00
FHP di R. Freudenberg S.A.S.	Milan	Italy	100.00
Freudenberg Italia S.a.s. di Freudenberg S.p.A.	Milan	Italy	100.00
Freudenberg Performance Materials Apparel S.a.s. di Externa Holding S.r.l.	Milan	Italy	100.00
Freudenberg S.p.A.	Milan	Italy	100.00
Freudenberg Sealing Technologies S.a.s. di Externa Italia S.r.l.u.	Pinerolo	Italy	100.00
Freudenberg Tecnologie di Filtrazione S.a.s. di Externa Holding S.r.l.	Milan	Italy	100.00
Gimi S.p.a.	Monselice	Italy	100.00
Hänsel Textil Italia S.a.s. di Externa Holding S.r.l.	Rho	Italy	100.00
Klüber Lubrication Italia S.a.s. di G. Colori	Milan	Italy	100.00
Marelli & Berta Interfodere S.a.s. di Externa Holding S.r.l.	Milan	Italy	100.00
Politex S.a.s. di Freudenberg Politex s.r.l.	Novedrate	Italy	100.00
Chem-Trend Japan K.K.	Kobe	Japan	100.00
EagleBurgmann Japan Co., Ltd.	Tokyo	Japan	25.00
Freudenberg Spunweb Japan Company, Ltd.	Osaka	Japan	67.69
Japan VIAM Co., Ltd.	Moriyama	Japan	75.00
Japan Vilene Company Ltd.	Tokyo	Japan	75.00
Oshitari Laboratory, Inc.	Sayama	Japan	75.00
Oyama Chemical Co., Ltd.	Oyama	Japan	75.00
Pacific Giken Co., Ltd.	Yasu	Japan	75.00
SurTec MMC Japan KK	Tokyo	Japan	56.00
Vibracoustic Japan KK	Yokohama	Japan	100.00
Vilene Create Co., Ltd.	Tokyo	Japan	75.00
VIS Co., Ltd.	Tokyo	Japan	75.00
Freudenberg Vileda Jordan Ltd.	Amman	Jordan	51.00
Colarôme Inc.	Saint-Hubert	Canada	100.00
Dichtomatik Canada, Inc.	Markham	Canada	100.00
EagleBurgmann Canada Inc.	Milton	Canada	75.00

Company	Location	Country	Share of capital [%]
Freudenberg Filtration Technologies Inc.	London	Canada	100.00
Freudenberg Household Products Inc.	Laval	Canada	100.00
Freudenberg Oil & Gas Canada Inc.	Nisku	Canada	100.00
Freudenberg-NOK Inc.	Tillsonburg	Canada	75.00
TOO Freudenberg Oil & Gas	Atyrau	Kazakhstan	100.00
EagleBurgmann Colombia, S.A.S.	Bogotá	Colombia	75.00
SurTec d.o.o.	Zagreb	Croatia	100.00
EagleBurgmann (Malaysia) SDN. BHD.	Shah Alam	Malaysia	25.00
Freudenberg Household Products (Malaysia) Sdn Bhd	Petaling Jaya	Malaysia	100.00
Freudenberg Oil & Gas Technologies Sdn. Bhd.	Kuala Lumpur	Malaysia	100.00
Freudenberg-NOK St Malaysia Sdn. Bhd.	Kuala Lumpur	Malaysia	75.00
Klüber Lubrication (Malaysia) Sdn. Bhd.	Shah Alam	Malaysia	100.00
Chem-Trend Comercial, S.A. de C.V.	Querétaro	Mexico	100.00
Dichtomatik de Mexico S.A. de C.V.	Querétaro	Mexico	95.50
EagleBurgmann Mexico S.A. de C.V.	Cuautitlán	Mexico	75.00
Freudenberg Filtration Technologies, S.A. de C.V.	León	Mexico	100.00
Freudenberg IT, S.A. de C.V.	Puebla	Mexico	100.00
Freudenberg Productos del Hogar, S.A. de C.V.	Mexico City	Mexico	100.00
Freudenberg-NOK Sealing Technologies de Mexico, S.A. de C.V.	Cuautla	Mexico	75.00
Klüber Lubricacion Mexicana S.A. de C.V.	Querétaro	Mexico	100.00
Trelleborg Automotive Toluca SA de CV	Toluca	Mexico	100.00
VIAM Manufacturing Mexico S.A. de C.V.	Aguascalientes	Mexico	75.00
Vibracoustic de Mexico SA de CV	Lerma	Mexico	100.00
Vibracoustic Toluca SA de CV	Toluca	Mexico	100.00
Vitechmex Nonwovens S.A. de C.V.	Aguascalientes	Mexico	75.00
Dichtomatik B.V.	Zwolle	Netherlands	100.00
EagleBurgmann Netherlands B.V.	Veenendaal	Netherlands	75.00
Freudenberg Household Products B.V.	Arnhem	Netherlands	100.00
SurTec Benelux B.V.	Reuver	Netherlands	100.00
EagleBurgmann Norway AS	Skedsmokorset	Norway	75.00
Freudenberg Home and Cleaning Solutions AS	Skedsmokorset	Norway	100.00
Freudenberg Oil & Gas Technologies AS	Drammen	Norway	100.00
Vestpak AS	Sandnes	Norway	100.00
Dichtomatik Handelsgesellschaft mbH	Vienna	Austria	100.00
EagleBurgmann Austria GmbH	Salzburg	Austria	75.00
EagleBurgmann Production Center Judenburg GmbH	Judenburg	Austria	75.00
Freudenberg Austria GmbH	Kufstein	Austria	100.00
Freudenberg Sealing Technologies Austria GmbH & Co. KG	Kufstein	Austria	100.00
Klüber Lubrication Austria Ges.m.b.H.	Salzburg	Austria	100.00
Schneegans Freudenberg Silicon Ges.m.b.H	Losenstein	Austria	51.00

Company	Location	Country	Share of capital [%]
SurTec Produkte und Systeme für die Oberflächenbehandlung	Salzburg	Austria	
GesmbH	C it-	Dhilianin	100.00
EagleBurgmann Philippines, Inc.	Cavite	Philippines	25.00
Chem-Trend Polska Sp. z o.o.	Kobylnica	Poland	100.00
Chem-Trend Polska sp. z o.o. spólka komandytowa	Kobylnica	Poland	100.00
EagleBurgmann Poland sp. z o.o.	Warsaw	Poland	75.00
FHP Vileda Sp. z o.o.	Warsaw	Poland	100.00
FIM Polska Sp. z o.o.	Środa Śląska	Poland	100.00
Freudenberg Sealing Technologies Sp. z o.o.	Warsaw	Poland	100.00
Freudenberg Vilene Sp. z o.o.	Lodz	Poland	100.00
Klüber Lubrication Polska Sp. z o.o.	Kobylnica	Poland	100.00
SurTec Polska Sp. z o.o.	Kobylnica	Poland	100.00
Vibracoustic Polska Sp. z o.o.	Środa Śląska	Poland	100.00
ST Ibérica Sociedade Unipessoal, LDA	Albergaria-a-Velha	Portugal	100.00
Chem-Trend Romania s.r.l.	Bucharest	Romania	100.00
Freudenberg Household Products SRL	Brașov	Romania	100.00
Freudenberg Household Products Vileda Societate in Comandita	Brașov	Romania	100.00
Freudenberg Management Imobiliar SRL	Brașov	Romania	100.00
Freudenberg Performance Materials SRL	Brașov	Romania	100.00
Hänsel Textilrom srl	Bucharest	Romania	100.00
Klueber Lubrication Romania s.r.l.	Sibiu	Romania	100.00
SurTec Romania s.r.l.	Brașov	Romania	100.00
Vibracoustic Romania SRL	Dej	Romania	100.00
EagleBurgmann OOO	Moscow	Russian Federation	75.00
Freudenberg Filtration Technologies OOO	Nizhniy Novgorod	Russian Federation	100.00
Freudenberg Household Products Eastern Europe OOO	St. Petersburg	Russian Federation	70.00
Freudenberg Politex OOO	Zavolzhye	Russian Federation	100.00
Freudenberg Vileda Eastern Europe OOO	Moscow	Russian Federation	100.00
Klüber Lubrication OOO	Moscow	Russian Federation	100.00
OOO Freudenberg Sealing Technologies	Moscow	Russian Federation	100.00
OOO SurTec	Moscow	Russian Federation	100.00
Vibracoustic Volga OOO	Zavolzhye	Russian Federation	100.00
EagleBurgmann Saudi Arabia Ltd.	Al-Khobar	Saudi Arabia	51.00
Dichtomatik A.B.	Landskrona	Sweden	85.00
EagleBurgmann Sweden AB	Norrköping	Sweden	75.00
Freudenberg Home and Cleaning Solutions AB	Norrköping	Sweden	100.00
Freudenberg Sealing Technologies AB	Stockholm	Sweden	100.00
Vibracoustic China Holding AB	Forsheda	Sweden	100.00
Vibracoustic Forsheda AB	Forsheda	Sweden	100.00
Vibracoustic Sweden Holding AB	Forsheda	Sweden	100.00
•	Forsheda	Sweden	
Vibracoustic Wuxi Holding AB	ruisiieua	Sweden	100.00

Company	Location	Country	Share of capital [%]
EagleBurgmann (Switzerland) AG	Höri	Switzerland	75.00
Freudenberg Gygli AG	Zug	Switzerland	100.00
Freudenberg Sealing Technologies AG	Zurich	Switzerland	100.00
Klüber Lubrication AG (Schweiz)	Zurich	Switzerland	100.00
Freudenberg proizvodi za domacinstvo d.o.o.	Belgrade	Serbia	100.00
SurTec Cacak d.o.o.	Čačak	Serbia	100.00
Chem-Trend Singapore Pte. Ltd.	Singapore	Singapore	100.00
EagleBurgmann KE Pte. Ltd.	Singapore	Singapore	75.00
EagleBurgmann Singapore Pte. Ltd.	Singapore	Singapore	25.00
EBI Asia Pacific Pte. Ltd.	Singapore	Singapore	25.00
EBI Asia Pte. Ltd.	Singapore	Singapore	50.00
Freudenberg Oil & Gas Pte. Ltd.	Singapore	Singapore	100.00
Klüber Lubrication South East Asia Pte. Ltd.	Singapore	Singapore	100.00
Freudenberg Filtration Technologies Slovensko, s.r.o.	Potvorice	Slovakia	90.00
Freudenberg Immobilienmanagement Slovakia, s.r.o	Potvorice	Slovakia	100.00
Freudenberg IT, s.r.o.	Košice	Slovakia	100.00
SurTec SK s.r.o.	Vráble	Slovakia	100.00
Freudenberg Gospodinjski Proizvodi d.o.o.	Limbuš	Slovenia	100.00
SurTec Adria d.o.o.	Ljubljana	Slovenia	100.00
EagleBurgmann Ibérica S.A.	Madrid	Spain	75.00
Freudenberg Espana S.A.	Parets del Vallès	Spain	100.00
Freudenberg Espana S.A., Telas sin Tejer, S.en C.	Parets del Vallès	Spain	100.00
Freudenberg Home and Cleaning Solutions Iberica, S.L.U.	Parets del Vallès	Spain	100.00
Freudenberg Sealing Technologies, S.L.U.	Parets del Vallès	Spain	100.00
Klüber Lubrication GmbH Ibérica S.en C.	Parets del Vallès	Spain	100.00
Vibracoustic Cascante SAU	Cascante	Spain	100.00
Vibracoustic Spain Holding S.L.U.	Martorell	Spain	100.00
Vibracoustic Spain SAU	Martorell	Spain	100.00
Freudenberg & Vilene International Lanka (Private) Limited	Colombo	Sri Lanka	87.50
Hänsel Textil Lanka PVT Ltd.	Colombo	Sri Lanka	87.50
EagleBurgmann Seals South Africa (Pty) Ltd.	Edenvale	South Africa	55.47
Freudenberg Filtration Technologies (Pty) Ltd.	Cape Town	South Africa	100.00
Freudenberg Nonwovens (Pty.) Ltd.	Cape Town	South Africa	100.00
Klüber Lubrication (Pty.) Ltd.	Alrode Alberton	South Africa	100.00
SurTec South Africa Pty. Ltd.	Alrode Alberton	South Africa	100.00
Vibracoustic-Ikhwezi (Proprietary) Ltd.	East London	South Africa	70.00
Chem-Trend Korea Ltd.	Anseong-si	South Korea	100.00
EagleBurgmann Korea Co., Ltd.	Osan	South Korea	25.00
Freudenberg Home and Cleaning Solutions Korea Ltd.	Seoul	South Korea	100.00
Korea Filtration Technologies Co., Ltd.	Seoul	South Korea	87.50
Korea Vilene Co., Ltd.	Pyeongtaek-si	South Korea	87.50

Company	Location	Country	Share of capital [%]
SurTec Korea Co., Ltd.	Changwon-si	South Korea	100.00
Vibracoustic Kunhwa Co. Ltd.	Gyeongsan-si	South Korea	51.00
EagleBurgmann Taiwan Co., Ltd.	Kauohsiung	Taiwan	25.00
Freudenberg & Vilene Nonwovens (Taiwan) Co. Ltd.	Taoyuan	Taiwan	87.50
Freudenberg Far Eastern Spunweb Comp. Ltd.	Taoyuan	Taiwan	67.69
Freudenberg Household Products (Taiwan) Co., Ltd.	Taipeh	Taiwan	100.00
Chem-Trend Trading (Thailand) Co. Ltd.	Bangkok	Thailand	100.00
EagleBurgmann (Thailand) Co., Ltd.	Rayong	Thailand	25.00
Freudenberg & Vilene Filter (Thailand) Co. Ltd.	Chonburi	Thailand	87.50
Jump Distributors (Thailand) Co Ltd	Nonthaburi	Thailand	100.00
Klüber Lubrication (Thailand) Co., Ltd.	Bangkok	Thailand	100.00
Lucky Gecko Co Ltd	Bangkok	Thailand	100.00
TrelleborgVibracoustic (Thailand) Ltd.	Sriracha	Thailand	100.00
VIAM Manufacturing (Thailand) Co., Ltd.	Prachin Buri	Thailand	75.00
Accu-Tech s.r.o.	Chrastava	Czech Republic	49.00
EagleBurgmann Czech s.r.o.	Prague	Czech Republic	75.00
Freudenberg Home and Cleaning Solutions s.r.o.	Prague	Czech Republic	100.00
Freudenberg Sealing Technologies s.r.o.	Opatovice nad Labem	Czech Republic	100.00
Klüber Lubrication CZ, s.r.o.	Prague	Czech Republic	100.00
SurTec CR s.r.o.	Prague	Czech Republic	100.00
TPE správni s.r.o.	Melnik	Czech Republic	100.00
Vibracoustic CZ s.r.o.	Melnik	Czech Republic	100.00
Beltan Vibracoustic Titresim Elemanlari Sanayi ve Ticaret A.S.	Bursa	Turkey	100.00
Blacktech Otomotiv Sanayi ve Ticaret A.S.	Bursa	Turkey	65.07
Eagle Burgmann Endüstriyel Sizdirmazlik Sanayi ve Ticaret Ltd.	Istanbul	Turkey	75.00
Freudenberg Household Products Evici Kullanim Araclari Sanayi ve Ticaret A.S.	Istanbul	Turkey	100.00
Freudenberg Sealing Technologies Sanayi ve Ticaret A.S.	Bursa	Turkey	100.00
Freudenberg Vilene Tela Sanayi ve Ticaret A.S.	Istanbul	Turkey	100.00
Klüber Lubrication Yaglama Ürünleri Sanayi ve Ticaret A.S.	Istanbul	Turkey	100.00
Vibracoustic Çerkezköy Oto Parçaları Dış Ticaret A.S.	Çerkezköy	Turkey	100.00
Vibracoustic Çerkezköy Otomotiv Sanayi ve Ticaret A.S.	Çerkezköy	Turkey	100.00
Vibracoustic CV Air Springs Otomotiv Sanayi ve Ticaret A.S.	Gemlik	Turkey	65.07
Dichtomatik Kft.	Budapest	Hungary	100.00
EagleBurgmann Hungaria Kft.	Budapest	Hungary	75.00
Freudenberg Háztartási Cikkek Kereskedelmi BT	Budapest	Hungary	100.00
Freudenberg IM Hungária Kft.	Nyíregyháza	Hungary	100.00
Freudenberg Sealing Technologies Kft.	Kecskemét	Hungary	100.00
Freudenberg Tömítés Ipari Kft.	Lajosmizse	Hungary	100.00
Vibracoustic CV Air Springs Magyarország Kft.	Nyíregyháza	Hungary	65.07
Capol LLC	Deerfield	USA	100.00

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Company	Location	Country	Share of capital [%]
Chem-Trend Limited Partnership	Howell	USA	100.00
Dichtomatik Americas, L.P.	Shakopee	USA	100.00
EagleBurgmann Industries Inc.	Houston	USA	75.00
EagleBurgmann Industries LP	Houston	USA	75.00
Freudenberg Business Services LP	Plymouth	USA	100.00
Freudenberg Filtration Technologies LP	Hopkinsville	USA	100.00
Freudenberg Household Products Inc.	Aurora	USA	100.00
Freudenberg Household Products LP	Aurora	USA	100.00
Freudenberg IT LP	Durham	USA	100.00
Freudenberg Medical MIS, Inc.	Jeffersonville	USA	100.00
Freudenberg Medical, LLC	Carpinteria	USA	100.00
Freudenberg North America Limited Partnership	Plymouth	USA	100.00
Freudenberg Oil & Gas, LLC	Houston	USA	100.00
Freudenberg Performance Materials LP	Durham	USA	100.00
Freudenberg Real Estate LP	Plymouth	USA	100.00
Freudenberg Texbond L.P.	Macon	USA	100.00
Freudenberg-NOK General Partnership	Plymouth	USA	75.00
Freudenberg-NOK Holdings, Inc.	Wilmington	USA	75.00
International Seal Company, Inc.	Santa Ana	USA	75.00
Intpacor Inc.	Plymouth	USA	100.00
Klüber Lubrication NA LP	Tyler	USA	100.00
Pellon Corporation	Plymouth	USA	100.00
SurTec, Inc.	Brunswick	USA	100.00
Tobul Accumulator Incorporated	Bamberg	USA	100.00
Upper Bristol Ramp, LLC	Wilmington	USA	75.00
VIAM Holding, Inc.	Manchester	USA	75.00
VIAM Manufacturing, Inc.	Manchester	USA	75.00
Vibracoustic CV Air Springs USA, Inc.	Wilmington	USA	65.07
Vibracoustic North America Holdings, Inc.	Plymouth	USA	100.00
Vibracoustic North America LP	Plymouth	USA	100.00
Vibracoustic USA, Inc.	South Haven	USA	100.00
VICAM Inc.	Manchester	USA	75.00
VITECH Manufacturing L.P.	Hopkinsville	USA	75.00
VITECH Manufacturing, Inc.	Hopkinsville	USA	75.00
EagleBurgmann Middle East FZE	Dubai	United Arab Emirates	60.00
Freudenberg Oil and Gas FZE	Dubai	United Arab Emirates	100.00
ISE Industrial Sealing Equipment DMCC	Dubai	United Arab Emirates	75.00
Chem-Trend Vietnam Company Limited	Ho Chi Minh City	Vietnam	100.00
EagleBurgmann Vietnam Company Limited	Ho Chi Minh City	Vietnam	25.00

Company	Location	Country	Share of capital [%]
SurTec Viet Nam Co., Ltd.	Ho Chi Minh City	Vietnam	100.00
II. INVESTMENTS IN JOINT VENTURES (CONSOLIDATED BY EQUITY ME	THOD)		
Germany			
Other countries			
Corteco India Private Limited	Gurgaon	India	50.00
Cambus Teoranta	Spiddal	Ireland	50.00
Corfina s.r.l.	Pinerolo	Italy	50.00
NOK-Freudenberg Asia Holding Co. Pte. Ltd. <sup>2</sup>	Singapore	Singapore	50.00
TETL Holdings, LLC	Dover	USA	41.25
TTKKE Holdings, LLC	Dover	USA	30.00

### III. INVESTMENTS IN ASSOCIATED COMPANIES (CONSOLIDATED BY EQUITY METHOD)

### Germany

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Other countries			
Hikotomi Industrial Co., Ltd.	Hikone	Japan	24.98
NOK Corporation	Tokyo	Japan	25.10
NOK Klüber Co., Ltd.	Tokyo	Japan	49.00
Shinwa Products Co., Ltd.	Tsuzuranuki	Japan	34.09
Klüber Lubrication Korea Ltd.	Seoul	South Korea	48.00
Dawson Manufacturing Company	Benton Harbor	USA	45.00
Ishino Gasket North America L.L.C.	Plymouth	USA	37.50
EagleBurgmann Venezuela, C.A.	Caracas	Venezuela	41.25
SurTec Middle East (L.L.C.)	Sharjah	United Arab Emirates	35.00

 $<sup>^{\</sup>rm 1}$  Application of Sec. 264 (3), HGB (Handelsgesetzbuch, "German Commercial Code") and Sec. 264b, HGB

<sup>&</sup>lt;sup>2</sup> Consolidated financial statements including
Changchun NOK-Freudenberg Oilseal Co., Ltd., Changchun, China
Corteco China Co. Ltd., Guangzhou, China
Taicang NOK-Freudenberg Sealing Products Co., Ltd., Taicang, China
NOK-Freudenberg Group Sales (China) Co., Ltd., Shanghai, China
NOK-Freudenberg Group Trading (China) Co., Ltd., Shanghai, China
Wuxi NOK-Freudenberg Oilseal Co., Ltd., Wuxi, China
NOK-Freudenberg Hong Kong Ltd., Hong Kong, Hong Kong
Sigma Freudenberg NOK PVT. Ltd., New Delhi, India

 ${\bf Consolidated\ Financial\ Statement-Shareholdings}$ 

### INDEPENDENT AUDITOR'S REPORT

### To Freudenberg SE

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

### **Opinions**

We have audited the consolidated financial statements of Freudenberg SE, Weinheim, and its subsidiaries (the Group), which comprise the consolidated statement of financial position as at 31 December 2017, the consolidated statement of profit or loss, the consolidated statement of comprehensive income, the consolidated statement of cash flow, the consolidated statement of changes in equity 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 Freudenberg SE, which has been combined with the management report, for the fiscal year from 1 January to 31 December 2017.

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 HGB 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.

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 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 German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. 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.

#### Other information

The supervisory board is responsible for the report of the supervisory board in the annual report. In all other respects, the executive directors are responsible for the other information. The other information comprises

- the presentation of the company boards, the executive council and the management of the business groups in the annual report,
- the foreword of the board of management in the annual report and
- the section "responsibility for society" in 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.

# 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 (sys-

tems) 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 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 opinions.
- Evaluate the consistency of the group management report with the consolidated financial statements, its conformity with 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.

Mannheim, March 23, 2018

Ernst & Young GmbH

Wirtschaftsprüfungsgesellschaft

Prof. Dr. Wollmert Matischiok

Wirtschaftsprüfer Wirtschaftsprüfer

[German Public Auditor] [German Public Auditor]

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