

CHAPTER

Group management report

72-97

Fundamental information about the MAHLE Group 74–77

Business activities and corporate structure – 74

Business segments – 75

Group strategy – 76

Report on economic position 78–86

Economic conditions – 78

Business development – 80

Net assets, financial position, and results of operations – 83

Additional key performance indicators 87–91

Human resources – 87

Technology and innovation – 89

Purchasing – 90

Production, quality, and environment – 90

Opportunity and risk report 92–94

Outlook 95–97



As one of the world's largest suppliers and development partners to the automotive industry, MAHLE strives to make transportation more efficient, more environmentally friendly, and more comfortable.



We are among the market leaders in our business segments.



Faced with a changing mobility landscape, we are focusing on a dual strategy. This involves optimizations to the combustion engine as well as innovations in alternative powertrain technologies.

Fundamental information about the MAHLE Group

BUSINESS ACTIVITIES AND CORPORATE STRUCTURE

MAHLE has a global presence — as a leading international development partner and supplier to the automotive industry and as a technology pioneer for the mobility of the future. We are committed to making transportation more efficient, more environmentally friendly, and more comfortable. That is why we are continuing to optimize the combustion engine, drive forward the use of alternative fuels, and lay the foundations for the widespread acceptance and worldwide introduction of e-mobility.

On the basis of a broad systems competence, our product portfolio consisting of engine systems and components, filtration, and thermal management addresses all the crucial issues relating to the powertrain and air conditioning technology. In addition, our expertise in electric and electronic components and systems enables us to offer integrated systems solutions for e-mobility.

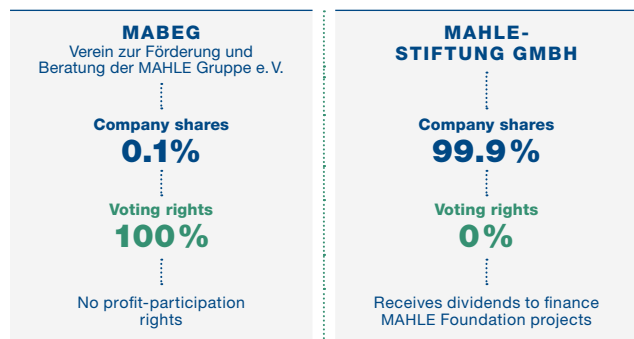
MAHLE products are fitted in millions of passenger cars and commercial vehicles. And that is not all: for decades, our components and systems have also been used on racetracks and off the road — in stationary applications as well as for mobile machinery, rail transport, and marine applications.

Our group consists of four business units: Engine Systems and Components, Filtration and Engine Peripherals, Thermal Management, and Aftermarket. Added to this are the Mechatronics division and five profit centers, which serve specific market and customer segments.

MAHLE is represented on five continents. We recognized the advantages of the opportunities presented by globalization at an early stage and enhanced our product portfolio by strategically founding and acquiring new business activities. Today, we operate around 160 production locations and 16 major research and development centers around the world, employing just under 80,000 people overall.

The nonprofit MAHLE Foundation controls 99.9 percent of the company's shares; 0.1 percent of the shares are held by Verein zur Förderung und Beratung der MAHLE Gruppe e.V. (MABEG), which also holds the voting rights and thus exercises the shareholder rights. This structure ensures our entrepreneurial independence and allows us to make long-term plans and future-oriented investment decisions.

OWNERSHIP STRUCTURE OF THE MAHLE GROUP



MAHLE GROUP

Sales: EUR 12,581 million
Headcount: 79,564

BUSINESS UNITS				DIVISION	PROFIT CENTERS
Engine Systems and Components Sales: EUR 2,781 million Headcount: 28,112	Filtration and Engine Peripherals Sales: EUR 2,256 million Headcount: 10,953	Thermal Management Sales: EUR 4,629 million Headcount: 23,874	Aftermarket Sales: EUR 928 million Headcount: 1,713	Mechatronics Sales: EUR 453 million Headcount: 4,303	Engineering Services, Motorsports, and Special Applications Large and Small Engine Components Industrial Thermal Management Compressors Control Units Sales: EUR 1,534 million Headcount: 10,609

As at December 31, 2018

A core management tool for our group is our operating result – a key figure similar to EBIT. The main differences compared with EBIT lie in the amortization of goodwill, the depreciation and amortization of hidden reserves, which are disclosed in purchase price allocations, and in the treatment of income from the sale of business activities.

BUSINESS SEGMENTS

Engine Systems and Components business unit

Not only is the Engine Systems and Components business unit one of the mainstays of our business, it also represents one of MAHLE's core fields of expertise. We have decades of development and systems competence in this area, are the world market leader in many segments, and enjoy a global presence with production locations for engine systems and components around the world. Our range of products includes steel and aluminum pistons, piston rings, cylinder liners, and bearings as well as valve train systems and components, which are used around the globe in passenger cars, commercial vehicles, large engines, and two-wheeled vehicles. We are continuously developing this portfolio, paying particular attention to reducing emissions and energy consumption in combustion engines.

Filtration and Engine Peripherals business unit

We manufacture filter systems as well as components for the engine periphery and are among the world market leaders in this business segment. Our products improve air cleanliness and prevent contaminants in oil and fuel from damaging the engine, thus increasing its efficiency and service life. In recent years, we have worked in close cooperation with our customers to develop modular systems for all the major product groups, because the product environment can vary significantly, even in identical basic engines. We have also taken another step forward with components made of special plastics, which were previously manufactured from metal. These are characterized by the high level of integration of functions that represent direct added value for customers. For example, we are developing all-plastic oil filter modules, which fully integrate the oil pump and oil cooling technology and are used in powertrains for electric vehicles.

Thermal Management business unit

Our products and ideas for the future are making a decisive contribution to the successful electrification of the powertrain. Only our innovative products from the field of thermal management for batteries, fuel cells, power electronics, and electric drives make extended cruising ranges, high levels of efficiency, and long service lives possible and are thereby playing a significant role in shaping the shift toward zero-emission powertrains. Thermal management is also becoming more and more important in the ongoing development of the combustion engine. For instance, our increasingly effective and efficient cooling systems are making a substantial contribution toward reducing fuel consumption. Our air conditioning innovations are enabling new

design concepts for interiors and helping to provide a high degree of thermal comfort in vehicles. In combination with high-performance mechanical and electric compressors and electric auxiliary heaters, we are making crucial improvements to consumption and range in the overall vehicle air conditioning system. We are the world's second largest supplier in the thermal management sector.

Aftermarket business unit

The Aftermarket business unit supplies a broad range of products and services in original equipment quality to the trade and to automotive workshops around the world. In addition to standard MAHLE spare parts, such as engine components, filters, turbochargers, and mechatronics components, we are increasingly offering products for thermal management such as thermostats and air conditioning compressors. Vehicle diagnostics, exhaust gas analyzers, and service equipment for maintaining HVAC modules and automatic transmissions complete the product portfolio, which is supplemented by a wide range of services, including technical support via our global network, customer training, and service information. In view of the diversity of today's vehicle technologies in the fleet, innovative and solution-oriented support is key to our business partners' success. That is why we work every day to expand our competences, services, and product areas. At the same time, MAHLE stands out thanks to its adaptive product management, fast and reliable logistics processes, strong brands, and competitive pricing. We are thus able to offer our customers individual repair solutions and improve workshop efficiency — thereby increasing customer satisfaction.

Mechatronics division

Not only are electric passenger cars and commercial vehicles gaining in importance, but so is lightweight, urban e-mobility. This requires modular systems comprising highly efficient electric motors and the associated electronic control units. With this in mind, we expanded our Mechatronics division in 2018 to include the Pedelec Drive Systems product group and introduced new products and systems for battery-powered electric vehicles and fuel cell vehicles. These activities are founded on our expertise in the development and manufacture of electric motors and electronic and mechatronic systems. Although these technologies are used in a wide range of applications, they are technically closely related. As a result, we — and therefore our customers — can benefit from even greater economies of scale and synergy effects.

Profit centers

Five business fields are organized as profit centers, which serve specific market and customer segments. Specifically, these are: Engineering Services, Motorsports, and Special Applications; Large and Small Engine Components; Industrial Thermal Management; Compressors; and Control Units. With this structure, we offer our customers a high degree of flexibility as well as tailor-made applications and components, thereby supporting them in the development of specific new products. In the year under review, we sold our shares in the joint venture Hella Behr Plastic Omnium (HBPO), which had been run as the Front-end Modules profit center.

GROUP STRATEGY

Our group strategy is based on the analysis of relevant megatrends from which we have derived various future scenarios. Four of these megatrends are having a particularly powerful impact on the automotive industry:

- Climate change (including the resulting political climate targets)
- Increasing urbanization
- Global population growth
- The increasing importance of Asia as an economic region

These megatrends call for new mobility solutions and present the automotive industry with new challenges. In addition to the expansion of car-sharing options and public transport, the increasing electrification of the powertrain, the growth in digital networking of vehicles, and autonomous driving are taking center stage. But it is not just on the roads where digitalization is playing an ever greater role — it is also becoming increasingly important for our internal company processes, through subjects such as Industry 4.0 and big data or even process automation. And these megatrends are also changing our customer landscape as a whole through, for example, the emergence of new suppliers of electric vehicles or of new digital business models.

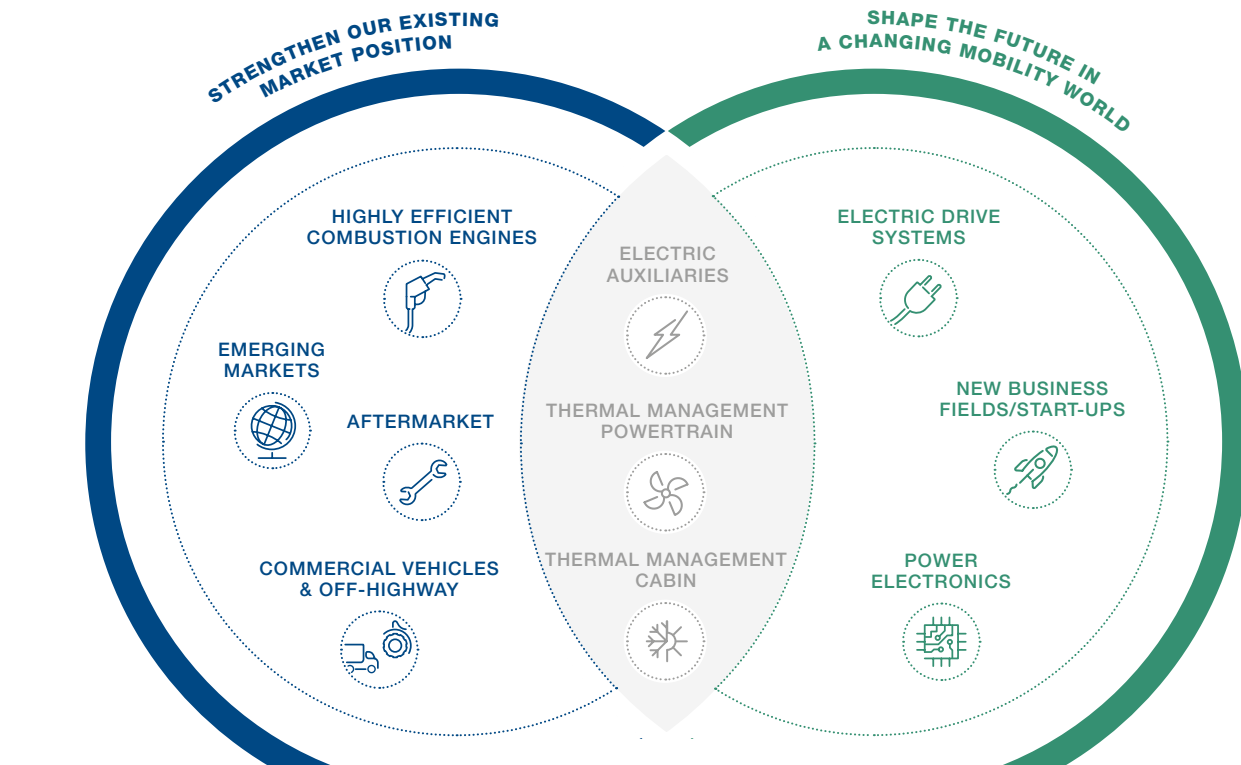
How quickly this structural change will take place depends, on the one hand, on which technical solutions will hold their ground in the market and, on the other, on ever-increasing political demands. For passenger cars and light commercial vehicles in urban distribution transport, technologies such as hybrid and electric drives will continue to gain further relevance alongside alternative usage models such as car sharing. The combustion engine will remain vitally important to heavy-duty commercial vehicles in the short and medium term, but alternative drive types such as the fuel cell are also becoming more important and complementing existing technologies.

Overall, we expect the combustion engine to remain a central feature of mobility both for passenger cars and for commercial vehicles. In view of the worldwide increase in vehicle production and the fact that combustion engines are also used in hybrid vehicles, we anticipate that the demand for corresponding components and systems will initially continue to grow.

MAHLE has derived a dual strategy on the basis of these assumptions and findings:

1. We will continue to be a technology leader in the ongoing development of the combustion engine and ensure the highest possible level of competitiveness in terms of quality and costs. In the process, we will especially concentrate on unlocking further CO₂ savings potential with regard to friction, thermal management, and the air pathway. By doing so, we are offering our customers solutions that comply with current and future legislation and make a significant contribution to reducing emissions.

DUAL STRATEGY



2. At the same time, we will push ahead with the development of innovative solutions and products for alternative powertrain technologies and expand the appropriate business segments. Business segments that are independent of the OEM business for the passenger car combustion engine are today already accounting for more than 50 percent of group sales – and we intend to consistently increase this share.

Our dual strategy is also reflected in our thermal management activities. Overall, the importance of efficient thermal management will continue to grow – both in conventional and in alternative drive systems. Over the years, we have specifically expanded this business segment, developing many thermal soaking innovations – both for the interior and for the powertrain, including the battery – and launching them on the market. We will continue to pursue this innovative approach resolutely.

We will substantially intensify our activities in electronics and mechatronics over the years ahead. By doing so, we plan to expand our extensive competence in electronics with the aim of supplying our customers with even better systems solutions for electric vehicles with regard to thermal management as well as the powertrain. System-based solutions like this are preferred by our customers, especially those in Asia. Furthermore, we intend to expand our portfolio of electric motors both for passenger cars and for two-wheeled vehicles, which are gaining ever-greater importance in urban mobility around the world.

Overall, we are pursuing a holistic approach in terms of the optimization of the combustion engine and the development of solutions for alternative powertrain technologies. It is not the electric motor alone that determines efficiency in an electric vehicle, but instead the interplay of various technologies. This is demonstrated by the example of MEET (MAHLE Efficient Electric Transport), our vehicle concept for future urban mobility. Commercial vehicles also benefit from the combination of various technologies. For example, a combustion engine's entire system can be operated even more efficiently by using systems designed to recover heat from exhaust gases.

Against the background of our dual strategy, we constantly review our portfolio as well as the strategic direction and economic performance of the group. One of our strategic goals is to evenly distribute sales across our core markets of Europe, North and South America, and Asia/Pacific – with a particular focus on the Asian growth market. We consider our global presence to be an important prerequisite for proximity to our customers and for developing innovations in line with the demands of the individual markets.



We achieved a significant organic increase in sales, which, with a rise of 4.4 percent, grew much faster than the market.



Due in part to positive special effects, we achieved considerable growth in the result from business activities to EUR 614 million.



As a result, we improved our equity ratio by over 4 percentage points to 36 percent.

Report on economic position

ECONOMIC CONDITIONS

Overall economic development

According to the January report by the International Monetary Fund (IMF), the rate of growth in the global economy of 3.7 percent in the 2018 business year was unchanged in comparison with the previous year. However, the risks to the economy increased in the course of the year – the economic outlook was dampened in particular by differences in trade policy, geopolitical tensions, and stricter financing conditions. Nevertheless, the upturn in the advanced economies continued at 2.3 percent, even though growth in some economic areas – such as in the euro zone and Great Britain – weakened more than expected. The very positive development in the emerging markets and developing economies continued with growth of 4.6 percent.

At 1.8 percent, economic growth in the euro zone was below that of the previous year, although strong demand, the upturn in the job market, and loose monetary policy favored economic development. On the other hand, the slowdown in export growth had a negative effect. The national economies of Germany and France in particular grew less strongly than in the previous year.

It was a different story in the USA, where – at 2.9 percent – the economy expanded more vigorously than in 2017, thanks to tax cuts and higher private consumer spending. Economic recovery in Brazil underwent a slight acceleration with an increase of 1.3 percent.

In the Asia/Pacific region, growth in the Chinese national economy of 6.6 percent was still strong, but more restrained than in previous years. Tensions over trade policy and protectionist tariffs put the country's economy under strain – especially toward the end of the year. At 0.9 percent, Japanese economic development was significantly lower than the growth of the previous year, despite rising domestic demand.

Exchange rate development

The MAHLE Group operates internationally and therefore also transacts business in foreign currencies. Exchange rate movements are thus of central importance as they influence the conversion of financial data for accounting purposes.

In the 2018 business year, exchange rate development was marked by the devaluation of key trading currencies relevant to our business against the euro, as measured by the average market price (direct quotation) compared with the previous year. For example, the annual average exchange rates of the Argentine peso (–57 percent), Turkish lira (–27 percent), and Brazilian real (–16 percent) slumped sharply. The US dollar (–4 percent) and the Chinese renminbi (–2 percent) also devalued against the euro on average over the year.

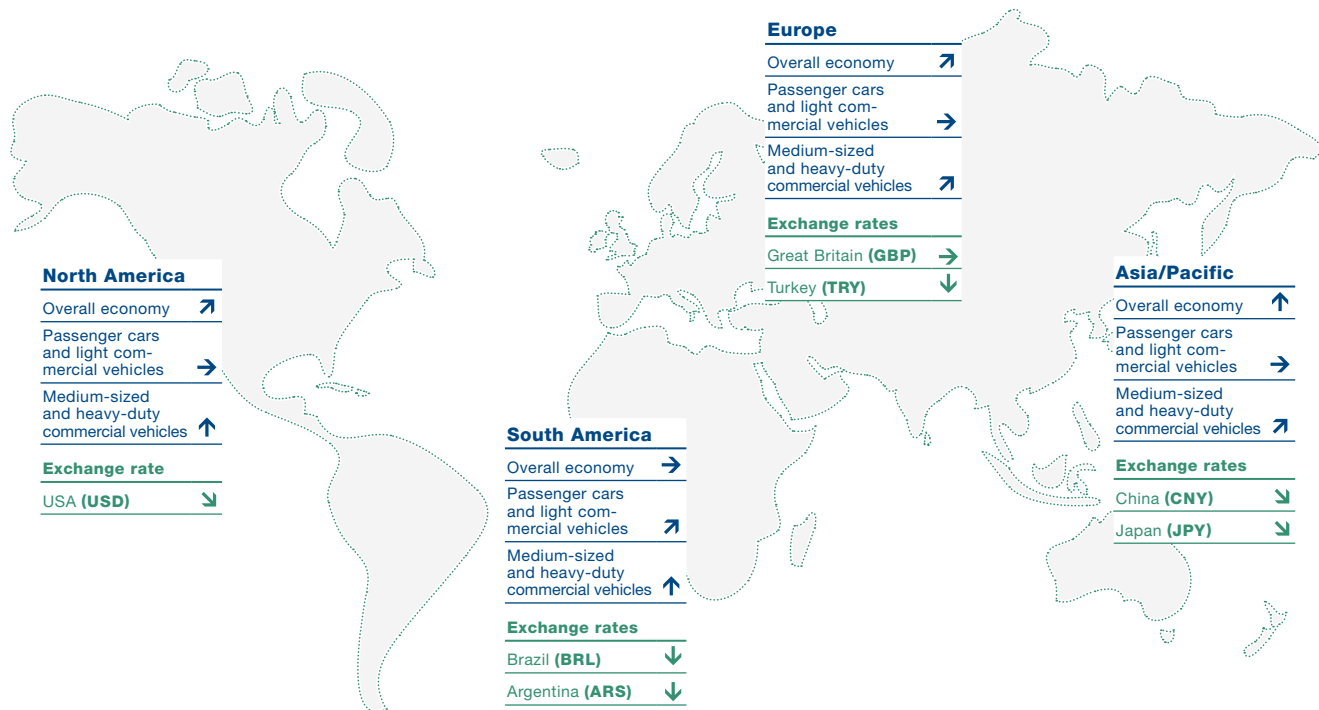
MAHLE counters the risks associated with exchange rate fluctuations with a process known as natural hedging. In this way, our strategy – of operating production locations in all major sales regions around the world – aims to make the group less susceptible to currency turbulence and exchange rate fluctuations.

Development of the markets for passenger cars and light commercial vehicles

Following the growth of the past few years, which has been substantial in some cases, global production of passenger cars and light commercial vehicles declined slightly in the year under review.

The development in Europe fell short of expectations. Difficulties in obtaining certification to Worldwide harmonized Light duty Test Procedure (WLTP) standard as well as subdued demand in Great Britain as a consequence of the Brexit negotiations led to a drop in vehicle registrations in western Europe. Added to this was a significant slump in the Turkish market. By contrast, the recovery in Russia continued and partially offset the decline in other European markets.

DEVELOPMENT OF THE MARKETS 2018



Exchange rate development of various foreign currencies against the euro (EUR) as measured by the average market price compared with the previous year: Argentine peso (ARS), Brazilian real (BRL), British pound (GBP), Chinese renminbi (CNY), Japanese yen (JPY), Turkish lira (TRY), US dollar (USD)

As in the previous year, a fall in demand had already been recorded in North America, but local production did benefit from the start-up of new production plants to some extent at least. In South America, vehicle production continued to grow as expected in the year under review. However, this growth was significantly dampened by political and economic tensions, above all in Brazil and Argentina.

The vehicle markets in the Asia/Pacific region weakened slightly and dropped below the previous year's level. The primary cause lay in the decline in the Chinese market, which shrank for the first time since 1990. Uncertainty with regard to the trade dispute with the USA and rising living costs resulted in significant caution among vehicle buyers, especially in the last quarter. Japan remained only at the previous year's level. India, on the other hand, stayed on track for growth at over 6 percent.

Development of the markets for medium-sized and heavy-duty commercial vehicles

Worldwide production of medium-sized and heavy-duty commercial vehicles increased during the year under review, whereas the growth rate fell substantially under the previous year's double-digit figure.

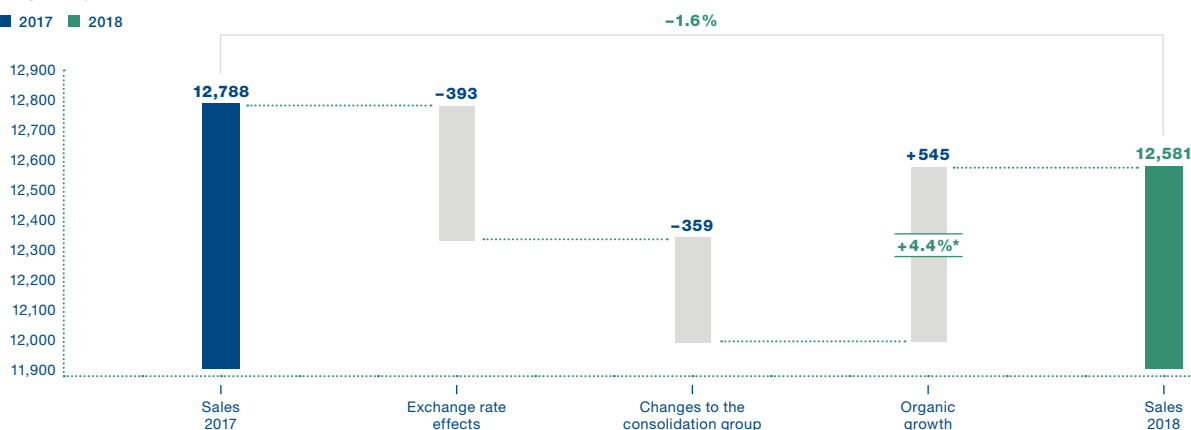
Production increased in Europe, with demand experiencing further recovery, especially in Russia. North America recorded double-digit growth for the second consecutive year. This is attributable to the cyclical recovery in the market for heavy-duty commercial vehicles. Production in South America also once again achieved a double-digit recovery.

In 2018, the Asia/Pacific market was marked by a fall in the growth rate. Following an increase of roughly 20 percent in the previous year, production in the year under review was just slightly above the previous year's level. The reason lies in a cyclical downturn in the market for heavy-duty commercial vehicles in China, where the market contracted by almost 8 percent. Production volumes also normalized in Japan in the year under review. After a year of weaker results in 2017, when the new emission level depressed the market, India regained its strong growth with a high double-digit expansion in output.

SALES BRIDGE

in EUR million

■ 2017 ■ 2018



* Calculated on 2017 sales adjusted for deconsolidations

BUSINESS DEVELOPMENT

Development of the MAHLE Group

In the year under review, the MAHLE Group generated sales of EUR 12.6 billion. We therefore achieved strong organic sales growth (i.e., after adjustment for exchange rate effects and changes to the consolidation group) of 4.4 percent. With this substantial increase, MAHLE's performance was significantly above global market growth. We thus also successfully exceeded our forecast from early 2018. Before adjustments, revenue was 1.6 percent below the previous year's value. Negative exchange rate effects of EUR 393 million and changes to the consolidation group of EUR 359 million had an adverse impact on our sales. Among other influences, exchange rate developments affecting the US dollar, Brazilian real, and Argentine peso depressed sales figures. The sale of our shares in the joint venture Hella Behr Plastic Omnium (HBPO), our profit center for front-end modules, on June 26, 2018, also reduced our sales base.

In the year under review, the development of the MAHLE Group was dominated by an intensified focus on our core fields of expertise. This involved the realignment of our group and a number of portfolio decisions. We therefore sold our shares in the joint ventures Bosch Mahle Turbo Systems (BMTS) and HBPO in order to align our future investments more strongly with our core business as well as with promising technologies and fields of application. In this way, we are following our dual strategy, which we continue to drive forward.

As part of this dual strategy, we further expanded our Mechatronics division. In an initial step, we opened our research and development center in Valencia/Spain, which has helped us to significantly enhance our competence in electronics in the year under review. We also won our first series order in the onboard charger business segment. In addition, our acquisition of 100 percent of the shares in ebikemotion will enable us to strengthen our activities in the area of electrically powered bicycles and expand our overall systems competence.

We also want to continue pushing ahead in the thermal management business segment, which is of central importance for conventional as well as alternative drive types. For that reason, we opened our first production plant for electric compressors in Balassagyarmat/Hungary. The technology in these compressors removes the link between air conditioning systems and combustion engines, and we have already won several customer projects from international automobile manufacturers. Series production is due to begin in 2019. We have also increased our participation in MAHLE Behr, which pools our expertise in vehicle air conditioning and engine cooling. We now hold a total of 57 percent of the company shares—up from 51 percent. The targeted development of our competence in thermal management has also paid off in other areas. We have been able to apply our expertise to support the Nikola Motor Company in the development and industrialization of a truck with a fuel cell drive. This partnership includes the air conditioning system for the driver's cabin as well as the cooling systems for the drive components.

In addition, we are strengthening our activities in the aftermarket business segment. First, we increased our shareholding in Brain Bee—a specialist in automotive diagnostics and workshop equipment—to 80 percent during the year under review, which takes us a step closer toward becoming a holistic solutions provider. Second, we are establishing an even better position for ourselves in the aftermarket business segment with the planned acquisition of all the shares in the former joint venture Behr Hella Service (BHS) in early 2020.

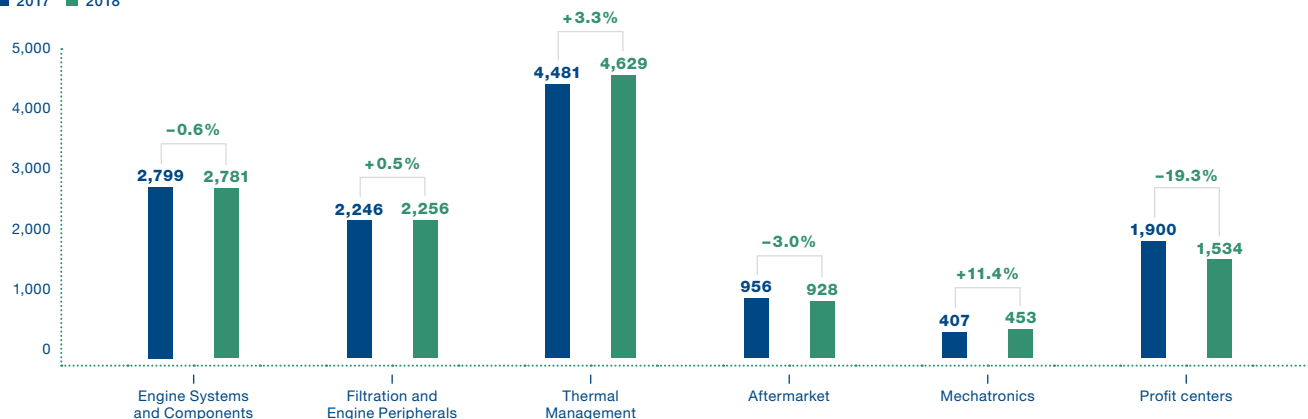
Development of the business segments

Significant organic sales growth has been recorded in all our business units, the Mechatronics division, and our profit centers in the year under review. In the Filtration and Engine Peripherals and Thermal Management business units and the Mechatronics division, sales exceeded the previous year, even in absolute values, although exchange rate effects substantially impaired sales in some cases.

SALES BY BUSINESS SEGMENT

in EUR million

■ 2017 ■ 2018



Engine Systems and Components business unit

Sales in the Engine Systems and Components business unit amounted to EUR 2,781 million in the year under review, thus remaining roughly at the previous year's level. However, the sale of our German forging operations and of MAHLE Metal Leve Miba Sinterizados in Brazil in 2017 had an adverse impact. Adjusted for these disinvestments and for the significant negative exchange rate effects, the business unit generated organic growth of just under 5 percent. We realized the largest sales increases—as was also the case in 2017—in steel pistons for commercial vehicles and in assembled camshafts, and we further expanded our production capacities for these products around the world. Sales of passenger car diesel pistons in Europe substantially declined—a consequence of the ongoing debate surrounding diesel. From a regional perspective, we recorded strong organic growth in South America in particular and benefited from the market recovery on this continent.

Filtration and Engine Peripherals business unit

At EUR 2,256 million, sales generated in the Filtration and Engine Peripherals business unit in 2018 remained at the previous

year's level. Here too, negative exchange rate effects (amounting to EUR 66 million) had a detrimental effect on sales, although organic sales growth exceeded 3 percent. Sales of cylinder head covers and oil pumps saw the strongest growth in the year under review, while demand for oil filter modules shrank as a result of the diesel question. Asia/Pacific and Europe proved to be the fastest-growing regions. Overall, the business unit had to deal with increases in material prices in the period under review, but we countered these with measures to boost productivity. As far as development is concerned, we are focusing more strongly on customer solutions that are unrelated to the combustion engine, such as the development of an oil management module for electric vehicles.

Thermal Management business unit

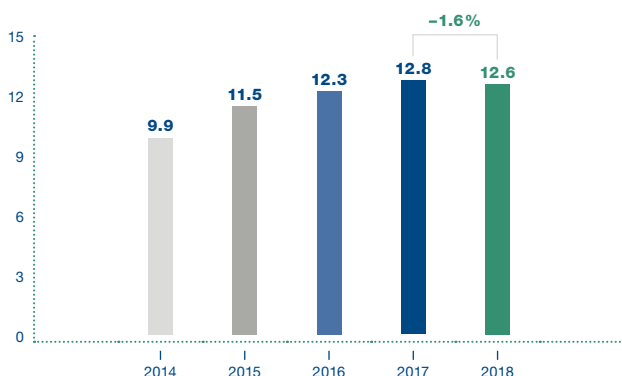
Sales in the Thermal Management business unit rose by 3.3 percent to EUR 4,629 million, despite substantial negative exchange rate effects of EUR 108 million. Organic growth amounted to just under 6 percent. Products for battery-powered vehicles in particular saw strong demand and recorded notable sales growth. We likewise sold significantly more cooling modules, charge air coolers, and HVAC modules than in the previous year. On a regional basis, development was extremely positive in North America above all. Here, the rise in demand led to strong sales growth among commercial vehicle customers and for SUVs, pickup trucks, and minivans.

Aftermarket business unit

In the Aftermarket business unit, we recorded sales totaling EUR 928 million in the 2018 business year. Although the acquisition of further shares in the diagnostics specialist Brain Bee during the year under review had a positive influence on sales, strong negative exchange rate effects had a detrimental impact amounting to EUR 71 million, which resulted in sales being 3 percent lower than in the previous year. Adjusted for consolidation and exchange rate effects, organic growth in Aftermarket amounted to around 3 percent. In 2018, we also entered the market and established our business in the areas of electronics

DEVELOPMENT OF SALES 2014–2018

in EUR billion



and air conditioning compressors. Looking at our global markets, our South America and Asia/Pacific regions in particular developed very successfully. This was due, among other contributing factors, to a positive trend as regards filter products in China and the successful expansion of Service Solutions in the Chinese market. Furthermore, the eastern European market recorded continued growth.

Mechatronics division

Sales in our Mechatronics division grew by 11.4 percent to EUR 453 million in the year under review. This figure takes into account the acquisitions of MAHLE Electronics in the 2017 business year and of ebikemotion in 2018. Overall, organic growth amounted to just over 6 percent. As a result of increased demand from the markets for agricultural and construction machinery, our sales rose sharply, primarily in starter motors and alternators. In addition, we substantially intensified our engineering activities in the high-voltage traction motors and power electronics product areas.

Profit centers

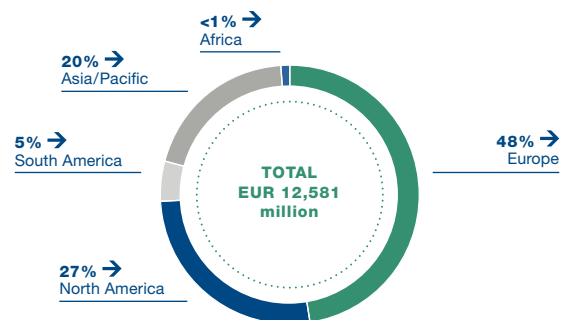
In our various profit centers serving specific market and customer segments, sales substantially declined to EUR 1,534 million in the year under review. This was primarily attributable to the sale of our shares in the joint venture HBPO, which had been run as the Front-end Modules profit center. Adjusted for this consolidation effect (EUR 361 million) and negative exchange rate effects (EUR 41 million), the profit centers achieved organic growth of more than 2 percent. Compressors — our strongest profit center in terms of sales — contributed to this result, generating organic growth of 2 percent. The Large and Small Engine Components, Industrial Thermal Management, and Control Units profit centers all likewise achieved substantial sales increases. One highlight for the Engineering Services, Motorsports, and Special Applications profit center was the opening of a test center compatible with WLTP and RDE (Real Driving Emissions) in Great Britain.

Development of the regions

With production and development locations in 32 countries, the MAHLE Group has a presence around the globe. Our international positioning ensures we are close to our customers and able to cooperate with them intensively while also responding flexibly to regional market fluctuations.

In the year under review, our sales development in certain regions suffered greatly from negative currency exchange rate effects. From the group's perspective, sales generated in North America, South America, and Asia/Pacific in particular were impaired by the devaluation of important trading currencies against the euro. In organic terms, however, we achieved sales growth in all regions, and this was significant in some cases. The detail of the development in the regions is as follows, based on sales by country of production:

SALES BY REGION



The directional arrows (↗ ↘) show the change in the proportion of sales compared with the previous year

Europe

Sales in the Europe region amounted to EUR 6,016 million, thus falling by 2.4 percent in comparison with the previous year. This was primarily attributable to the sale of our shares in the joint venture HBPO. By contrast, sales in Europe rose organically by a good 1 percent. Positive sales development was seen, above all, in Germany and in the eastern European locations of Slovenia, Slovakia, Russia, and Romania. Our Filtration and Engine Peripherals and Thermal Management business units grew particularly strongly — although discussions about the future of the diesel engine dampened demand for certain products.

North America

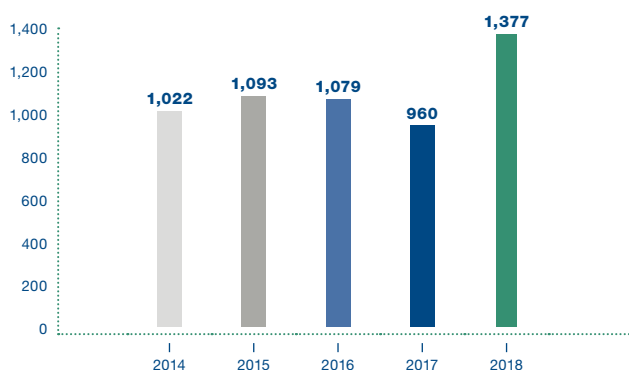
In North America, we generated sales of EUR 3,404 million, which is 0.4 percent above the previous year's level. Adjusted for severe negative exchange rate effects amounting to EUR 160 million, primarily due to the US dollar, and for the sale of our shares in HBPO, organic sales growth was very successful at more than 8 percent. In the year under review, we increased our sales in the United States, Mexico, and Canada, where our Thermal Management and Engine Systems and Components business units achieved significant organic sales growth.

South America

Sales in South America fell by 7.5 percent to EUR 625 million — essentially as a result of the negative exchange rate effects of EUR 146 million arising from the currency devaluations in Argentina and Brazil. Excluding these effects, a strong rise in organic sales of over 16 percent was achieved. MAHLE's growth in the South America region was thus substantially above the general market trend. In the Engine Systems and Components business unit in particular — and above all in the market for medium-sized and heavy-duty commercial vehicles — we significantly increased our organic sales. We also experienced strong growth in our Thermal Management business unit — which benefited from new projects in Brazil — and in the Aftermarket business unit.

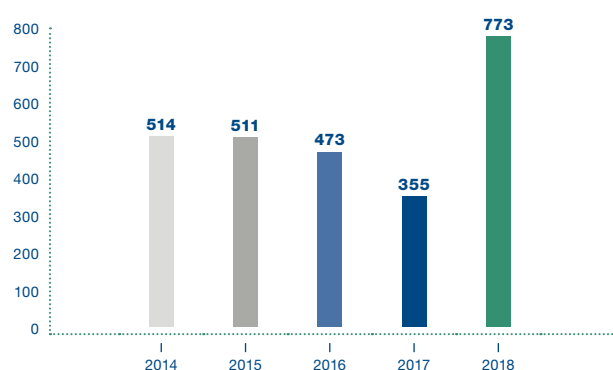
DEVELOPMENT OF EBITDA 2014–2018

in EUR million



DEVELOPMENT OF EBIT 2014–2018

in EUR million



Asia/Pacific

In the Asia/Pacific region, sales in the year under review slipped slightly below the previous year's level at EUR 2,484 million. Negative exchange rate effects (EUR 78 million, especially in China, India, and Japan) had an impact here too, as did the sale of our shares in HBPO. Organic sales rose by just under 4 percent. Our sales grew in China in particular: first, demand for commercial vehicles declined less steeply than expected and second, sales figures in the passenger car sector increased despite the weak market environment. Our Engine Systems and Components and Filtration and Engine Peripherals business units also experienced very successful development in the Asia/Pacific region, with organic sales growth turning out to be especially strong. Demand rose in the commercial vehicle sector in particular. The Aftermarket business unit also grew strongly.

Africa

Growth of 12.9 percent—or even as high as around 17 percent in terms of organic growth—caused external sales of our African locations to rise to EUR 53 million. Once again, the majority of this revenue in the MAHLE Group's smallest region was generated by the Thermal Management business unit.

NET ASSETS, FINANCIAL POSITION, AND RESULTS OF OPERATIONS

Results of operations

In the 2018 business year, the MAHLE Group improved the result from business activities very substantially from EUR 262 million to EUR 614 million. We thus exceeded the moderate increase expected at the start of the year. This considerable improvement in the result was largely due to the absence of the warranty expenses that had negatively impacted the previous year's result and income from the sale of our shares in the joint venture HBPO in June 2018. These effects had a strong positive influence on our operating income figures EBITDA and EBIT and, to some extent, on the operating result used for internal steering—a key figure similar to EBIT, but adjusted for individual circumstances. These effects more than compensated for burdens on the operative business, such as sales declines due to the diesel question, increases in material prices, and one-off costs associated with project start-ups.

The key income statement items developed as per the following details: influenced by the reduction in warranty expenses, cost of sales fell more sharply relative to sales in the year under review and amounted to EUR 10,344 million; the cost of sales ratio dropped to 82.2 percent. In addition, productivity improvements roughly offset further rises in material prices and personnel costs. Our selling expenses increased by EUR 18 million, and the ratio in relation to sales also rose slightly to 4.7 percent. Among other factors, this was due to high expenses arising from expedited freight and effects connected with the change to the consolidation group. By contrast, general administrative expenses in 2018 remained unchanged at the previous year's level. At EUR 751 million or 6 percent of sales, our research and development expenses stayed at their high level and reflect the targeted implementation of our dual strategy. Our profit figures benefited greatly from the fact that the balance from operating income and expenses rose significantly from EUR 107 million to EUR 409 million, primarily driven by high levels of income from portfolio adjustments. With the exception of research and

CONSOLIDATED INCOME STATEMENT

in EUR million	2018	in %	2017	in %
Sales	12,581	100.0	12,788	100.0
Cost of sales	-10,344	-82.2	-10,653	-83.3
Gross profit on sales	2,237	17.8	2,135	16.7
Selling expenses and general administrative expenses	-1,109	-8.8	-1,091	-8.5
Research and development expenses	-751	-6.0	-748	-5.9
Other operating income and expenses	409	3.3	107	0.9
Financial result	-172	-1.4	-141	-1.1
Result from business activities	614	4.9	262	2.1
Taxes on income	-136	-1.1	-125	-1.0
Result after taxes	478	3.8	137	1.1
Other taxes	-32	-0.3	-35	-0.3
Consolidated net income	446	3.5	102	0.8
EBIT	773	6.1	355	2.8
EBITDA	1,377	10.9	960	7.5

development expenses, all cost items were adversely impacted by the effects of purchase price allocations. In total, these amounted to EUR 134 million and include EUR 48 million relating to planned amortization of goodwill.

The development of the items in the income statement outlined above resulted in a substantial rise in EBIT from EUR 355 million to EUR 773 million. Accordingly, the EBIT margin improved significantly to 6.1 percent (previous year: 2.8 percent), mainly due to the disposal gains. Adjusted for the effects of the purchase price allocations and the amortization of goodwill, the EBIT margin was at 7.2 percent.

The financial result worsened in 2018—largely owing to higher expenses from the discounting of future pension payments and the negative market development of pension assets. This was partially offset by the effects from the sale of the shares in BMTS. For example, the expenses from the profit and loss transfer were much lower than in the previous year. In the year under review, we have thus achieved an overall considerable increase in the result from business activities to EUR 614 million.

Despite the significantly improved result, taxes on income rose only moderately to EUR 136 million. This was mainly because the income from the sale of the shares in HBPO did not increase the tax base to the same extent as it did the commercial result. Our income tax rate therefore reduced significantly in comparison with the previous year to 22.1 percent. Other taxes were slightly below the previous year's level at EUR 32 million. As a result, we improved our net income for the year substantially from EUR 102 million to EUR 446 million.

Net assets position

As at the balance sheet date of December 31, 2018, our balance sheet total had risen slightly to EUR 8,272 million. Fixed assets

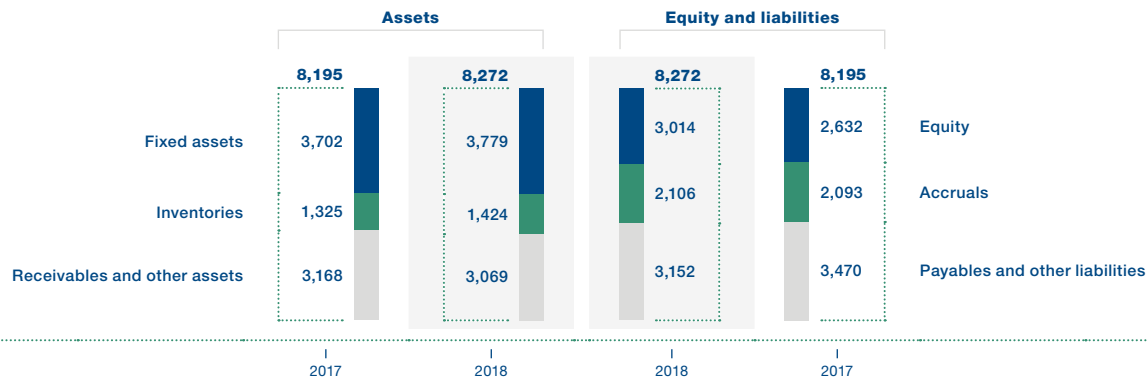
increased to EUR 3,779 million in the 2018 business year, primarily due to the expansion of our tangible fixed assets, because our investments substantially exceeded depreciation. By contrast, financial assets fell owing to the sale of the shares in BMTS, while intangible assets were at the previous year's level as at December 31, 2018.

At EUR 4,167 million, current assets of the MAHLE Group corresponded to the level of the previous year. Our inventories rose substantially by EUR 100 million to EUR 1,424 million, which was mainly attributable to an increase in raw materials, consumables, and supplies. On the other hand, receivables and other assets remained at the previous year's level as at the balance sheet date. Although trade receivables decreased as a consequence of the abovementioned changes to the consolidation group, the effect was nevertheless offset by a rise in other assets—in particular due to tax refund claims. Our liquid funds decreased primarily owing to the repayment of loans and, together with securities, amounted to EUR 407 million as at the balance sheet date.

The positive development of earnings allowed us to significantly increase the MAHLE Group's equity by EUR 382 million to EUR 3,014 million in the year under review. This led to a corresponding rise in our equity ratio, from 32.1 percent to 36.4 percent. As at the reporting date, accruals amounted to EUR 2,106 million, thereby slightly exceeding the previous year's figure. The notable rise in accruals for pensions—largely owing to interest effects—was partially offset by a decline in other accruals, which in turn was overwhelmingly attributable to changes to the consolidation group. Furthermore, our warranty and risk accruals decreased, as did personnel accruals. Trade payables also experienced a slight decline in the year under review, which was entirely due to the change to the consolidation group. Other liabilities reduced significantly to EUR 407 million. The main cause of the decrease is the repayment of liabilities in

BALANCE SHEET STRUCTURE OF THE MAHLE GROUP

in EUR million



connection with warranty claims that do not relate to 2018. As a result of the early repayment of German private placement loans (Schuldscheindarlehen), liabilities to banks fell to EUR 716 million. Since no bonds were either issued or repaid in the business year, the corresponding liabilities as at the balance sheet date still amounted to EUR 829 million. Overall, we have decreased our net debt to EUR 1,137 million in the year under review.

Equity ratio increased significantly to

36.4%
in 2018

Besides the circumstances depicted in the balance sheet, we recorded the following significant off-balance-sheet transactions as at December 31, 2018: on the one hand, rental and leasing agreements particularly for land and buildings to a total sum of EUR 125 million (previous year: EUR 130 million) and, on the other, factoring amounting to EUR 108 million (previous year: EUR 129 million), which we are utilizing to diversify financing sources.

Investments

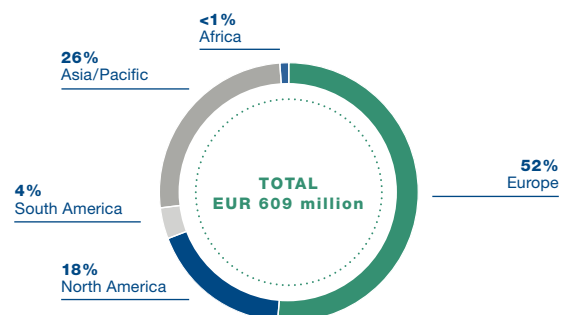
At EUR 609 million, our investments in tangible fixed assets in the 2018 business year were largely unchanged and at a high level (previous year: EUR 612 million). The investment ratio, which shows the relationship between investments and sales, remained constant at 4.8 percent. Investments thereby notably exceeded the depreciation on tangible fixed assets: with a ratio of 136 percent in relation to depreciation, we substantially expanded tangible fixed assets (previous year: 137 percent).

From a regional perspective, we focused our investments in the year under review in Europe, Asia/Pacific, and North America. More than half of our investments were made in Europe. We in-

vested heavily in plant expansions and in the upgrade of production facilities in Poland, Slovenia, and Spain as well as in our locations in Germany – at our thermal management plant in Mühlacker, for example. In Hungary, we realized an additional, important investment project linked to the opening of our production plant for electric compressors. More than one-quarter of our total investment was directed toward the Asia/Pacific region. In line with our business development, the majority of these investments affected our Chinese locations, where plants were developed and capacity expanded – alongside investments connected with customer projects. We also invested in existing production facilities in Japan. Almost one-fifth of our investments were made in North America, with priority given to investments in production facilities and customer projects at our US locations and to the relocation of capacity to Mexico.

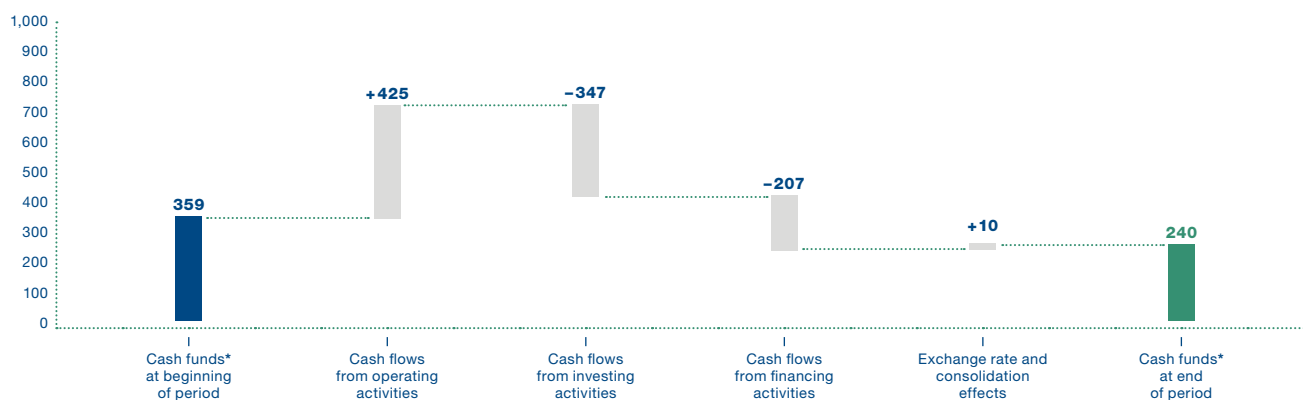
In addition to capital expenditure on tangible fixed assets, we also took advantage of strategic acquisitions during the year under review to expand our business activities as part of our dual strategy. On the one hand, we increased our participation in MAHLE Behr to strengthen our thermal management business.

INVESTMENTS BY REGION



CASH FLOWS

in EUR million



* Cash-in-hand, bank balances with an initial term less than 3 months, and checks less liabilities to banks with an initial term of less than 3 months

On the other hand, we took over the diagnostics specialist Brain Bee and are thereby gradually evolving into a holistic solutions provider for the aftermarket.

Financial position

In line with its global growth, MAHLE has established a broad basis for its group financing over the past few years and improved its diversification. Our financing portfolio not only includes syndicated credit lines, German private placement loans, and bilateral loans, but also euro-denominated corporate bonds. With our conservative financing policy, we are pursuing the objective of an implicit investment grade risk. This positioning is also reflected in the moderate leverage and solid equity ratio.

In the 2018 business year, we extended the term of the existing syndicated credit line of EUR 1,600 million with our core banks by one year to July 2023. We repaid matured German private placement loans of EUR 15 million on November 30, 2018, at which time we also repaid German private placement loans of EUR 139 million that were not yet due. As at the end of the year, the unused but firmly committed credit lines amounted to EUR 1,745 million, which, along with the liquid funds, contributed to the financial stability of the group. Our cash holding is diversified across various banks that are selected according to rating criteria.

Due in part to the abovementioned repayment of German private placement loans, we closed the 2018 business year with negative cash flows of EUR 129 million. By contrast, cash flows from operating activities amounted to EUR 425 million and were thus noticeably lower than the previous year's value. This is primarily due to high cash outflows in connection with warranty claims from the previous year. At EUR 347 million, the net cash outflow arising from our investing activities was, conversely, much less negative than in the previous year, because effects resulting from disposals carried out in 2018 led to a high level of cash income. Nevertheless, high capital expenditure on tangible fixed assets and on strategic acquisitions continued unchanged in the year under review. Overall, we were able to completely cover the cash requirements for investments in fixed assets through cash flows from operating activities. Cash flows from financing activities showed net cash outflows of EUR 207 million, which — in addition to interest and dividend payments — were primarily due to the use of liquid funds to repay financial liabilities.



We want to secure the long-term success of our company. In the year under review, we therefore employed an additional 1,300 new staff.



As well as optimizing the combustion engine, we are driving forward the development of alternatives such as hybrid or battery electric powertrains and fuel cells.



We are seizing the opportunities presented by digitalization in a wide range of areas, including, for example, purchasing and production.

Additional key performance indicators

HUMAN RESOURCES

As at the reference date of December 31, 2018, the MAHLE Group employed 79,564 people worldwide and therefore 1.6 percent more than in the previous year, 2017. The increase of 1,287 employees resulted on the one hand from the positive development in demand, which was accompanied by greater staffing requirements, and on the other hand from the takeover of the diagnostics specialist Brain Bee and the full consolidation of the former joint venture Behr Thermot-tronik Italia. Our headcount was, however, reduced as a consequence of the sale of our shares in the joint venture HBPO and the closure of our location in Wellingborough/Great Britain.

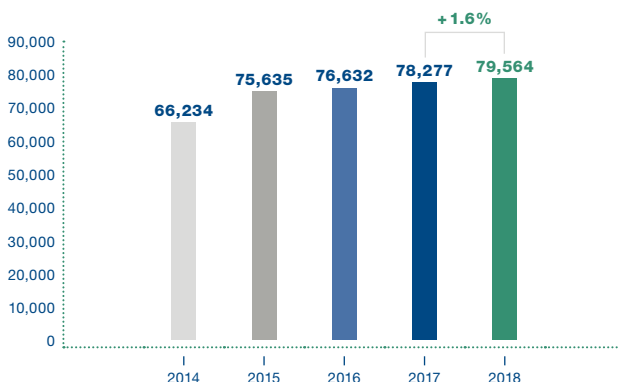
Our employees are the key to the future viability of the MAHLE Group. Their know-how, motivation, and commitment are the foundation of our successful development. This is why we once

again invested heavily in the training and further education of our staff to the sum of EUR 12 million in the year under review (previous year: EUR 13 million). In addition to a variety of workplace-related briefings, our employees took part in 93,835 qualification activities in the year under review. The global absence rate (excluding joint ventures) fell slightly in the year under review, amounting to 3.8 percent (previous year: 4 percent).

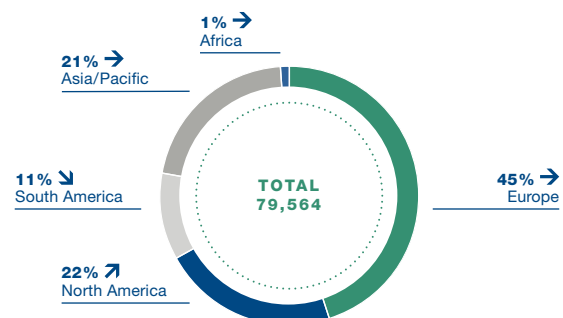
Headcount by region

In Europe, the staffing level rose slightly by 746 people (or 2.1 percent) in the year under review to 35,655 employees in total. This was mainly due to new appointments at the locations of our Mechatronics division in Slovenia and Spain as well as the further expansion of the shared service center in Poland. The acquisition of Brain Bee in Italy saw 97 new employees join the MAHLE Group. By contrast, the number of employees in Europe fell by 306 following the sale of our shares in the joint venture

HEADCOUNT DEVELOPMENT 2014 2018

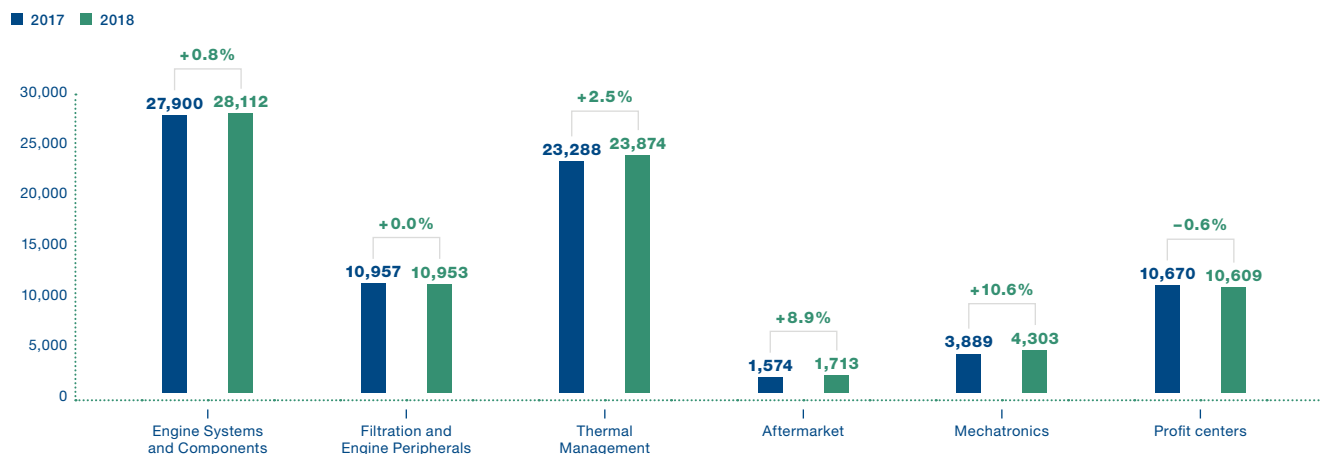


HEADCOUNT BY REGION



The directional arrows (↗ ↘) show the change in the proportion of employees compared with the previous year

HEADCOUNT BY BUSINESS SEGMENT



HBPO and by a further 115 due to the closure of our location in Wellingborough/Great Britain. Despite the decline in staffing levels in certain areas, our headcount in Europe grew overall.

In North America, we recorded a total of 17,090 employees as at the reference date of December 31, 2018, and thus 621 (or 3.8 percent) more people than in the previous year. The rise resulted both from the positive order levels in Mexico and from the high capacity utilization arising from the introduction of new products in the USA, which was associated with the recruitment of 260 additional employees.

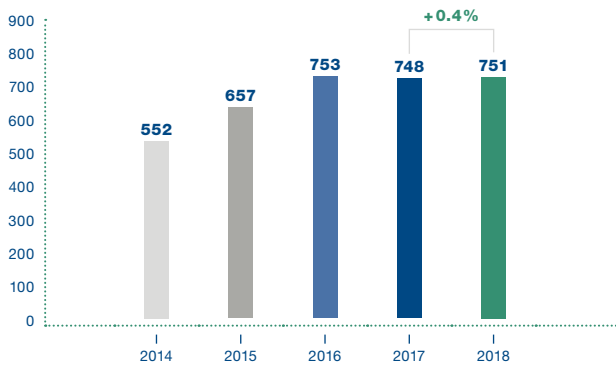
In South America, the number of staff declined slightly by 2 percent compared with the previous year, to a total of 9,074 employees. In the Asia/Pacific region, personnel growth was moderate in the year under review with an additional 100 employees (+0.6 percent) bringing us up to a total of 16,697. In Africa, our headcount remained constant.

Headcount by business segment

In our Engine Systems and Components business unit, the staffing level rose by 212 employees. At around 35 percent at the close of the year under review, the majority of our group's employees worked at one of its total of 44 locations. We employed around 30 percent of our total workforce at the 38 locations of the Thermal Management business unit. With an additional 586 employees, this is where we saw the greatest growth in absolute terms in comparison with the previous year. The Filtration and Engine Peripherals business unit employed around 14 percent of the entire group workforce in its 36 plants. The number of employees in this business unit remained unchanged in comparison with the previous year. With a 8.9 percent rise, Aftermarket, our smallest business unit in terms of personnel, saw its staffing level grow relatively strongly in comparison with the previous year. At 10.6 percent, the Mechatronics division also experienced a sharp increase in its headcount and reached a 5.4 percent share of the total workforce. The staffing level in our profit centers reduced by 0.6 percent. This figure was particularly impacted by the sale of the Front-end Modules profit center as a result of the disposal of our shares in the joint venture HBPO.

R&D EXPENDITURE 2014–2018

in EUR million



TECHNOLOGY AND INNOVATION

In the year under review, we maintained our group-wide research and development (R&D) activities at a high level, investing EUR 751 million in this area—following EUR 748 million of investment in the 2017 business year. The ratio in relation to sales also remained virtually stable at 6 percent. The high level is an impressive demonstration of the relevance and significance of research and development to the MAHLE Group. In terms of personnel, we have slightly expanded the R&D function and hired new development engineers and technicians. As at the end of 2018, we employed 6,116 R&D staff. The quality of our research can also be seen in the more than 320 first filings of patents that we entered in the year under review. In addition, there were around 550 records of inventions. At the same time, MAHLE supports flexible cooperation in global teams in order to push R&D projects ahead more quickly in the future.

Number of R&D staff

6,116

as at December 31, 2018

MAHLE also continued to pursue a dual strategy during the past business year. This means that, on the one hand, we are further optimizing the combustion engine to make it even cleaner and more efficient. And on the other hand, we are driving forward the development of alternative drive concepts—hybrids, battery electric powertrains, and fuel cell technologies. In this context, particular note should be made of MEET, our forward-looking vehicle concept for urban mobility, which combines efficiency, comfort, and agility. Electronic systems are becoming increasingly important in modern vehicles. The powertrain of the future

is a system consisting of hardware and software that communicates and interacts within the vehicle in an intelligent and interconnected manner. As a pioneer of future mobility solutions, MAHLE is therefore continuously expanding its activities in the area of electronics, with the company's new research and development center for electronics, opened by MAHLE in Valencia/Spain in November 2018, representing a significant element of this approach. In the future, around 250 employees in Valencia will work on developing new products and concepts for sustainable mobility. At almost the same time—late October 2018—MAHLE commissioned its very first production plant in the world for e-compressors. Compressors are the heart of air conditioning systems—and the electric compressor that MAHLE has finished developing in the last few years will remove the link between air conditioning systems and combustion engines.

MAHLE also aims to push forward the technology used in the commercial vehicle market by means of a future-oriented drive mix. Specifically, we are working toward being able to offer the market a perfect mix of various types of drive—combustion engines, hybrids, and electric drives through to fuel cell technology—whose operation will also be as low in emissions and as low cost as possible. With regard to the combustion engine, we recently presented the e-Waste Heat Recovery System, which converts exhaust gas heat into electrical energy, thereby enabling economically efficient hybrid technology for long-distance hauling and distribution transport with significant fuel savings. To achieve even greater levels of efficiency in commercial vehicle combustion engines, we also presented an innovative valve train system with which MAHLE integrates functions such as engine braking or exhaust gas temperature management into the valve train. We are advancing the field of hybrid technology with our Visco® hybrid fan drive. This solution, which has been specially designed for hybrid drives, results in greater efficiency and enables energy recovery at the same time. The fuel cell drive is an increasingly promising alternative to the combustion engine—particularly for heavy-duty commercial vehicles. In recent years, MAHLE has specifically developed near-series solutions for these systems, which it is now adapting for use in commercial vehicles. For example, we showcased a flat membrane humidifier at IAA, which aims to ensure that the supplied air is humidified reliably—essential to the efficiency and service life of a fuel cell. At the same event, we also presented our production-ready solutions for the temperature control of batteries, electronics, and electric motors as well as our solutions for monitoring the fuel cell stack.

Which technology concepts and drive mix will ultimately prevail on the market is a question both of the cost to operators of vehicle fleets and of legislation, especially with regard to CO₂ regulations. For this reason, we are working on the assumption that the drive mix for commercial vehicles will be subject to an ongoing process of change and diversification, and that the combustion engine will continue to play a supporting role for some time to come. Diversification between the combustion engine, hybrid and electric drives, and hydrogen technology on the basis of a systems approach thus remains a major theme of research and development at MAHLE. In the process, we are consciously making advance investment in this area and want to

supply our customers today with all the technologies that they need to operate successfully. In doing so, we are proactively seizing the opportunities currently offered by the dynamic vehicle markets.

PURCHASING

As was already the case in the 2017 business year, we also faced a difficult raw materials market in the year under review. In particular, the rising prices of steel, aluminum, and resins proved a challenge on the supply side — these raw materials are very important to MAHLE. In addition, the procurement of the required resources was hampered by shortages as well as trade barriers and isolationism. This resulted in escalating purchase prices, a decrease in the proportion of procurement from low-wage countries, and the relocation of purchasing volumes from China to the USA, for example. Furthermore, the procurement of raw materials and preproducts was impaired by unfavorable currency trends, especially in the US dollar, the Brazilian real, and the Turkish lira. Ultimately, the availability of raw materials was also affected, because some of our suppliers struggled with strike action and other force majeure events. The associated challenges — primarily to ensure security of supply — were successfully overcome by MAHLE's Purchasing function. We also made preparations in the year under review to supply our plants after Brexit and in the event of a no-deal Brexit.

In the future, our procurement team intends to concentrate to an even greater extent on guaranteeing capacity and on the security of supply to our production locations. Another objective is to focus more strongly on improving our working capital. We are therefore making efforts to extend payment terms and consignment storage agreements. Finally, we want to organize our purchasing processes to be more efficient overall, by, for example, increasing the digitalization of processes, pooling our purchasing volumes more systematically, and increasingly handling transactional and purely operational activities via shared service centers.

PRODUCTION, QUALITY, AND ENVIRONMENT

MAHLE Production System

All of MAHLE's approximately 160 production locations and business areas are involved in a continuous improvement process. We are constantly advancing this process and sharing successful practices around the world. On the basis of this exchange, a global team has identified the most important principles, methods, and standards for the MAHLE Production System (MPS) to systematically eliminate waste in manufacturing and thus make it more efficient.

This global core team was enlarged in the year under review and now employs 40 additional MPS staff. We also established additional lighthouse plants in North America, Europe, and the Asia/Pacific region in 2018 in order to drive forward the production system's implementation across the group. With the MAHLE Production System, we aim not only to establish excellent as well as efficient processes and methods throughout the group, but also to bring about a sustainable change of culture at the same time — toward even more transparency, solution-oriented thinking, and responsiveness. In doing so, the MAHLE Production System is contributing to the competitiveness of our production operations — and thus to the sustainable and profitable growth of our company.

In the year under review, we also introduced a new function intended to push forward the subject of Industry 4.0 within the context of the MAHLE Production System. The manager responsible is a central contact for all questions relating to Industry 4.0. He pools together and coordinates all related activities, connects those involved, and encourages the global exchange of knowledge at MAHLE.

Quality management at MAHLE

Innovative, defect-free, and reliable products and systems are the foundation of our long-term success. Quality targets are therefore a fundamental element of our annual business plan: they are regularly defined from the top down, fleshed out from the bottom up, and consolidated across the operational business areas. In addition, a group-wide quality management system has been in use at MAHLE for many years and is integrated into all our business processes. This system was expanded during the business year. The risk management process was defined in more detail, and we introduced a more precise evaluation process into our contingency plan.

We launched the group-wide MAHLE Quality Improvement Program in the 2017 business year and continued it in the year under review. We are consistently advancing the quality of our products and processes in eleven projects dealing with various aspects of quality management. The overarching goals are to

achieve best-in-class quality and zero defects. We therefore want to eliminate potential sources of defects as early as the product development phase, and the quality management system also supports series production. Supplier quality, training, and further education are included in the program as well. Our employees around the world take part in quality round tables to discuss the results delivered by the MAHLE Quality Improvement Program and the upcoming challenges facing quality management. The findings thus obtained then feed into and improve our process flows.

MAHLE received around

80

quality awards in 2018

The 2018 business year was also marked by a new automotive standard (IATF 16949:2016). This was introduced and certified on schedule by September 2018 at all production locations working in the automotive sector. The aim of the standard is to raise customer satisfaction and continually optimize all our process flows by means of regular audits. Our development centers and nonautomotive locations likewise successfully passed the recertification audit to ISO 9001:2015. Here too, we review and audit our process flows at regular intervals in order to identify potential for improvement.

Data relating to our quality performance is presented in a variety of ways in our customers' portals. For this reason, we are currently working to develop a group-wide database featuring consistent reporting. The aim is to standardize the information relevant to MAHLE that originates from the various customer portals and thereby make more targeted use of any potential for improvement it offers.

Our efforts with regard to quality are paying off: We achieved further reductions in the number of customer complaints, and the number of faulty delivered parts did not increase despite growing volumes in the year under review. In 2018, we once again received awards from numerous customers in recognition of the quality of our products.

Number of customer complaints reduced by

7%

compared with the previous year

Environment and safety at work

From research and development to production and recycling, we take a holistic approach to the protection of our staff as well as to the health of our employees and that of the environment. In 2018, we made further progress with the implementation of our corresponding group-wide guidelines and requirements. In this context, we also further developed our reporting system in order to better monitor the impact and success of our measures taken.

One of our areas of focus in 2018 was the continuation of the safety at work offensive, which we began in the previous year. As a first result, we were able to substantially reduce the accident rate. We want to establish this important issue even more firmly in all our employees' minds.

Accident rate fell by

16%

in comparison with the previous year

To achieve this, we are running training programs for executives and employees and offering round-table discussions on the subject of safety. We also began to introduce safety at work management systems, certified according to ISO 45001, in the year under review, which we intend to gradually extend to all locations.

When it comes to environmental protection, our focus also continues to be on energy management, with the aim of making the operation of all our locations as energy efficient, as low in emissions, and therefore as environmentally friendly as possible. By using our database, which documents lessons learned and successful processes, we are striving to tap areas of energy efficiency potential. Furthermore, we are encouraging dialog on energy-related topics through meetings held at a national and, increasingly, also at a regional and global level.



The opportunities and risks identified by our risk management system are the guidelines on which our corporate activities are consistently based.



We are using our dual strategy to counter the risks posed by possible shifts in technology.



We do not currently see any risks that could endanger MAHLE's continued existence.

Opportunity and risk report

We use a management system to evaluate the opportunities and risks associated with our business operations. In this way, we gain knowledge from which we draw conclusions and adapt our actions accordingly. Our globally active internal audit regularly verifies the compliance and efficiency of our processes and control systems by means of an audit plan, which changes on an annual basis. Because our group will continue to grow in the years ahead, we are constantly developing our risk management system – with the following areas of focus.

MARKET AND TECHNOLOGICAL TRENDS

We identify long-term market and technological trends using a systematic scenario approach. As a framework, it provides a baseline scenario including the developments in our business areas, regions, products, and markets until 2030. On this basis,

Extreme scenarios for

2030

Stress test for market and technology trends

and using “extreme scenarios 2030,” we implement stress tests for our company on various aspects – such as markets, regions, drive types, quantities, and technologies. By taking market and

technological trends into account in this systematic way, we ensure that we identify opportunities and risks at an early stage. The findings from these analyses are used to make decisions about future business segments and new production processes; we include the measures derived in our strategic and budget planning. In the course of preparing management reports, we monitor whether and how the agreed steps are implemented.

Opportunities and risks arise from the markets' increasing awareness of environmental considerations and from new standards to reduce emissions, for example. We therefore include all relevant topics in our international research and development activities at an early stage and focus our attention on a wide range of technologies to increase the efficiency of the combustion engine, on alternative drive configurations, and on a holistic, intelligent thermal management system. As a result, we are able to offer our customers competitive, innovative products. With our steadily growing portfolio of electric drives and auxiliary components, we are benefiting from the expanding market for electric vehicles. We have specifically strengthened these activities through multiple acquisitions, which have been pooled within our Mechatronics division and are now integrated into the group. Through acquisitions made in recent years, we have significantly expanded our thermal management business and our product portfolio to include air conditioning compressors. MAHLE therefore has the necessary resources to develop electric air conditioning compressors for the growing plug-in hybrid and electric vehicle market.

Impediments to trade such as Brexit and the tariff dispute between the USA and China, economic fluctuations, changes to the political framework in individual regions or countries, and

the growing number of competitors from Asia in particular can have a major impact on market developments and thus on the business development of our company. On the subject of Brexit, we have set up a working group that is continually monitoring the developments relating to the possible exit of the United Kingdom from the European Union and drawing up and maintaining appropriate response options. As things stand at present, the various scenarios are not expected to result in any significant effects on business activities. In general, our broad market base and global presence serve as important stabilizing factors and help us to counter market and customer risks. Our highly diversified customer and product portfolio also has a corresponding impact. Consequently, possible declines in demand in individual markets or from individual customers can at least be partially offset. We therefore consider a global market slump — as in the economic crisis of 2009 — with a major adverse effect on profit, as one of the greatest risks for our group. We limit the repercussions by means of appropriate early warning systems and action plans. The discussions about diesel emissions and possible bans on older diesel models are significant uncertainty factors for the whole automotive industry. By implementing suitable measures, we aim to mitigate at an early stage the potential economic effects of a shift in technology. These effects could also be due to possible legislative changes — such as a ban on combustion engines in passenger cars applicable from a certain point in time. Through our dual strategy of maintaining our position as a technology leader in the ongoing development of the combustion engine while also driving forward innovative solutions for alternative powertrain technology, we are readying ourselves for future developments of this kind. Business segments that are independent of the OEM business for the passenger car combustion engine today already account for more than 50 percent of group sales. We want to continuously increase this proportion of sales that is unrelated to the passenger car combustion engine.

Proportion of sales by business segments

>50%

*independent of the OEM business
for the passenger car combustion engine*

PROCUREMENT AND PRODUCTION

Our risk management system is also focused on minimizing the negative impacts stemming from the procurement markets. Regular supplier assessments prevent unexpected supply bottlenecks and/or price increases in purchasing. We have stepped up these activities in recent years and are making sure that the independence of our suppliers is maintained. In addition, we have been using a tool to monitor risks worldwide, which enables a rapid overview of the impact of natural disasters, strikes, and insolvencies. This increases transparency and thus decreases risk in the supply chain. Appropriate safety stocks and

OTC hedging transactions also serve to reduce procurement risks. To optimize our business processes further, our production plants all around the world cooperate with each other on an ongoing basis. Our Safety First campaign, launched in 2017 and comprising extensive measures to guarantee safety at work, continued in the business year. By means of improved production processes and high quality standards, we aim to ensure that operational risks — such as unforeseen circumstances, unexpected technical issues, accidents, and human error — hinder production operations as little as possible. Thus far, the increasing number of extreme weather events, such as floods, inundations, and droughts, have impacted our production locations only in isolated cases. MAHLE counters the associated risks using an established environmental management system.

Our group has been audited and certified in accordance with current external standards and specifications relevant to our industry — for example, ISO standards for quality, environmental protection, and safety at work — and is thus subjected to important external checks that serve to limit risks. We have arranged an economically prudent degree of cover by means of insurance policies for the disruption of operations resulting from damage as well as liability risks. However, there were again very significant quality incidents and warranty claims in 2018. To improve our ability to avoid similar risks in the future, we have defined cross-functional countermeasures. In this way, development processes in particular will be scrutinized and optimized in more detail. Financial burdens incurred in the year under review are fully included in the group result. Where legally required, financial burdens resulting from quality incidents and warranty claims originating and known as at the balance sheet date, and which are expected to result in cash outflows, are covered by accruals as part of risk provisioning.

FINANCE MANAGEMENT

Using our systematic and group-wide finance management system, we aim to ensure our optimized use of financing opportunities from the banking and capital market. The liquidity risk is covered by diversified financing facilities with staggered maturity profiles that considerably exceed our group's foreseeable financial requirements. When designing our financing mix, we take security, flexibility, and cost factors into account. Our aim is to secure the financial independence of our group, limit the financing risks, and ensure we are able to exploit business opportunities at all times. We detect currency risks by means of our group-wide planning and reporting system. In accordance with standardized group-wide principles, we counter these risks extensively using nonpredictive hedging transactions over a horizon of up to 24 months. As a rule, hedging transactions relate to OTC FX forwards or swaps in the form of portfolio hedges. The use of derivative financial instruments is necessarily linked to the existence of an operational underlying transaction; expected and not yet invoiced currency risks are thereby covered with continuously declining hedging grades. The resulting hedging relationship generates valuation units in accordance with the critical term match method. The interest rate risk is subjected to value-at-risk analyses. OTC hedging activities and other

financial transactions give rise to counterparty risks with financial institutions, which we identify and evaluate across the group in our uniform reporting system. If predefined thresholds are exceeded, the counterparty risk is influenced by the targeted spread of risks.

HUMAN RESOURCES, IT, AND ACCOUNTING

Highly qualified and motivated employees are a cornerstone of our success both today and in the future. That is why it is important for us to attract suitable staff, support them on a continuous basis, help them gain further qualifications, and retain them in our company over the long term. We have developed a comprehensive personnel marketing concept and set up a recruitment organization in order to establish direct contact with potential candidates at an early stage and recruit qualified employees. We are thereby reducing the risk of not filling vacant positions or filling them only after some delay. In order to guarantee our group's long-term success and take advantage of the opportunities arising from market and technological changes, our personnel requirement planning is geared toward developments in the relevant markets as well as strategically significant technologies and business segments. Performance-related remuneration systems, modern pension schemes, and advanced training activities counter the risk of losing employees in strategically important positions. In the IT function, security technologies protect against unauthorized access to or misuse of data by internal and external parties. Server and storage systems are set up in such a way that they can be restored at short notice in the event of a disaster and in crisis situations. Defined security standards not only encompass the technical specifications of the hardware and software, but also the functional security

structures and organizational provisions. Detailed backup and recovery procedures reduce the risk of severe disruptions, for example, by securing access procedures as well as mirroring and archiving data on a daily basis. With regard to the accounting process, the internal control and risk management system is aimed at ensuring the compliance and effectiveness of accounting and financial reporting. Besides guidelines and principles, the system also includes measures to prevent and uncover reporting errors. The consolidated financial statements are compiled centrally with reporting data transferred from subsidiaries. We guarantee compliance with the MAHLE guidelines by means of systemic controls, specialist advice, and manual checks as well as through the validation of data plausibility by the group accounting function.

REGULATIONS AND LEGISLATION

The introduction and implementation of directives alongside organizational and work instructions ensure that statutory requirements are observed. By integrating internal and external experts into the processes from an early stage, we minimize risks and exploit opportunities that could arise, for example, from fiscal, occupational, competition, patent, antitrust, and environmental regulations and legislation as well as from trade rules. Key elements of our compliance structure include the MAHLE Business Code, a global compliance organization, a training concept for risk areas relevant to compliance, and preventive measures.

OVERALL ASSESSMENT

Overall, no risks are currently observable that could endanger the continued existence of our group.



We anticipate overall stable development in the vehicle markets for the 2019 business year.



We expect slight organic sales growth. The result from business activities is likely to fall significantly as the special effects that boosted the result no longer apply.



Cooperation between our business segments, functions, and regions will become even more intensive in 2019, allowing us to offer our customers even better solutions.

Outlook

OVERALL ECONOMIC DEVELOPMENT

In its January report, the International Monetary Fund (IMF) projects generally subdued economic prospects for 2019. According to the IMF's estimates, the rate of growth in the global economy is likely to be below that of previous years, with growth driven mainly by developing and emerging markets, and to a lesser extent by industrial nations. Overall, worldwide economic development could be weakened by economic risks, such as trade barriers and restrictive financing conditions, as well as by political uncertainties.

In the European Union and the euro zone, growth in the year ahead is anticipated to fall slightly below the 2018 rate at just under 2 percent. Sustained strong demand, falling unemployment, and continued relaxed monetary policy are expected to contribute to growth. While growth in Italy, Spain, and Germany is likely to deteriorate, the IMF anticipates stable expansion in the French economy compared with the previous year.

At a good 2 percent, the IMF also projects less dynamic growth than in 2018 for the USA. Here, fiscal incentives are likely to be scaled back in 2019, which will probably also impact the USA's trading partners. According to the IMF, South America's largest national economy Brazil will continue to expand by over 2 percent in 2019, essentially as a result of growing private consumption.

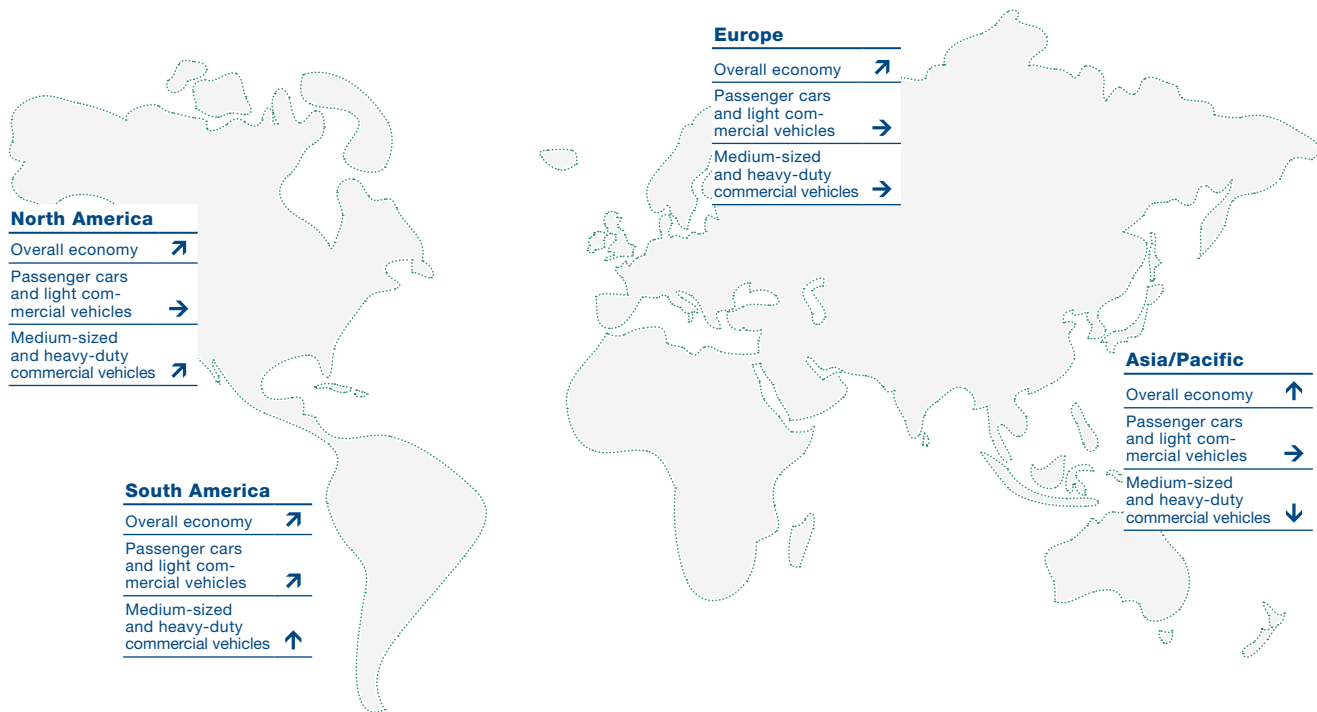
IMF forecast

3.5%

economic growth in 2019

In the Asia/Pacific region, India's strong economy remains one of the drivers of growth — not only in the region, but also worldwide. The expansion of the Chinese economy, by contrast, is continuing to slow down — with one reason being the trade dispute with the United States. Conversely, slightly higher growth than in the previous year is expected in Japan in 2019.

DEVELOPMENT OF THE MARKETS – FORECAST FOR 2019



DEVELOPMENT OF THE VEHICLE MARKETS

In the 2019 business year, we expect the global production of passenger cars and light commercial vehicles to maintain its sideways trend. The international market for medium-sized and heavy-duty commercial vehicles will, however, probably contract as a result of the anticipated downturn in the Chinese market.

Vehicle production in Europe is likely to develop at the previous year's level. This applies to passenger cars and light commercial vehicles as well as to medium-sized and heavy-duty commercial vehicles. We expect western European markets to weaken slightly. It is unlikely that this trend can be offset by Russia, since the market here is also likely to normalize.

Passenger car and light commercial vehicle sales in North America will probably continue to shrink in 2019, although production will still benefit from the relocation of capacity to the region. As regards the medium-sized and heavy-duty commercial vehicle class, we predict that the cyclical upturn in heavy-duty commercial vehicles will reach its peak in 2019 and therefore expect only limited growth. In South America, we anticipate a normalization of demand in both vehicle categories.

In the Asia/Pacific region, production figures for passenger cars and light commercial vehicles are expected only to reach the previous year's level. For China in particular, we predict a restrained development, and a continued contraction in produc-

tion is forecast in Japan. By contrast, a continuation of the positive trend is expected in India. For the region, however, we anticipate a significant decline in the medium-sized and heavy-duty commercial vehicles market segment. Nevertheless, demand for commercial vehicles in India is likely to benefit from a new emissions standard, which is expected to lead to vehicle purchases being brought forward and thus a rise in production. However, this will probably only partially compensate for the cyclical downturn in the largest market, China.

DEVELOPMENT OF THE MAHLE GROUP

For the 2019 business year, we anticipate a slight organic increase in sales (when adjusted for changes to the consolidation group as well as exchange rate effects) – subject to a stable global automotive market. We expect a marked decline in the result from business activities in 2019, because factors such as the one-time effects that boosted the result in 2018 no longer apply.

We will proceed with our dual strategy in 2019. We intend to continue to expand and push forward the areas of growth that we have already opened up in previous years. Using venture capital, we will therefore further additional innovative projects related to our dual strategy and initiatives beyond the scope of our core business. We will additionally cooperate with start-ups to develop new ideas and solutions. Our MAHLE Incubator projects and the MAHLE Innovation Hub ideation platform likewise provide our employees with an environment in which they can

propose product solutions as well as new processes and business models, and drive these forward in an agile manner. With these initiatives, we are also supporting group-wide dialog and networking between our innovative staff.

Focus for

2019

*intensive collaboration for
innovative solutions*

The latter example in particular shows the direction that we want to take to a greater extent in 2019. We are focusing more strongly on closer cooperation between the business segments, functions, and regions, so that we are able to develop even better solutions for our customers. Among other measures, we are using our Manufacturing Days for this purpose—events that we have been running on an international basis since the fall of 2018. In this way, we are encouraging dialog between business segments with regard to pilot projects and processes as well as to the subject of shared standards and best practices. Owing to its great success, we will continue this series of events in 2019. A further initiative to promote closer cooperation is the MAHLE Top Thinkers Circle, where highly innovative employees from all MAHLE regions and business segments are brought together in cross-functional teams to devise new business models and work together to tackle relevant issues. Finally, our acquisition teams will cooperate more closely across functions and regions with the goal of strengthening our sales expertise and further improving our response time for the benefit of our customers.

Another important issue for our company is and will remain the digital transformation, which is progressing with tremendous momentum and is one of the most important drivers of economic development—for MAHLE and beyond. In the 2018 business year, we were still focused on formulating our digitalization strategy—in 2019, we aim to realize the targets we have set. Our approach is highly oriented toward benefits, and we always have the creation of value in mind—for MAHLE and for our customers. By digitalizing all our business areas, our goal is both to open up new business activities and to make our processes more efficient. Digital technologies should, on the one hand, improve products and, on the other, streamline production processes and optimize administrative workflows. For example, MAHLE is investing in artificial intelligence in the form of a fully automated quality inspection process based on camera systems in order to save costs and time and increase production quality from the perspective of the customer. In addition, we are taking advantage of big data technologies in a pilot project to optimize production with regard to Industry 4.0.

Our economic success is the foundation on which we realize our future strategies. It enables us to invest in research and development, establish new business areas, and make acquisitions that complement our portfolio with a view to the future. With this in mind, and to maintain and enhance this strong foundation, we are striving for further sales growth while at the same time increasing profitability. Our financial independence and ability to withstand potential crises are always our priorities. We therefore set great store by a healthy balance sheet structure and moderate net gearing. The mainstays of our financial policy are thus a solid equity base and liquidity that is secured over the long term and built on stable operating cash flows as well as diversified financing sources and instruments.

This report contains forward-looking statements that rely on current estimates of future developments and are therefore subject to risks and uncertainties that are beyond our control or precise assessment. Consequently, the actual results may differ from the statements made here.