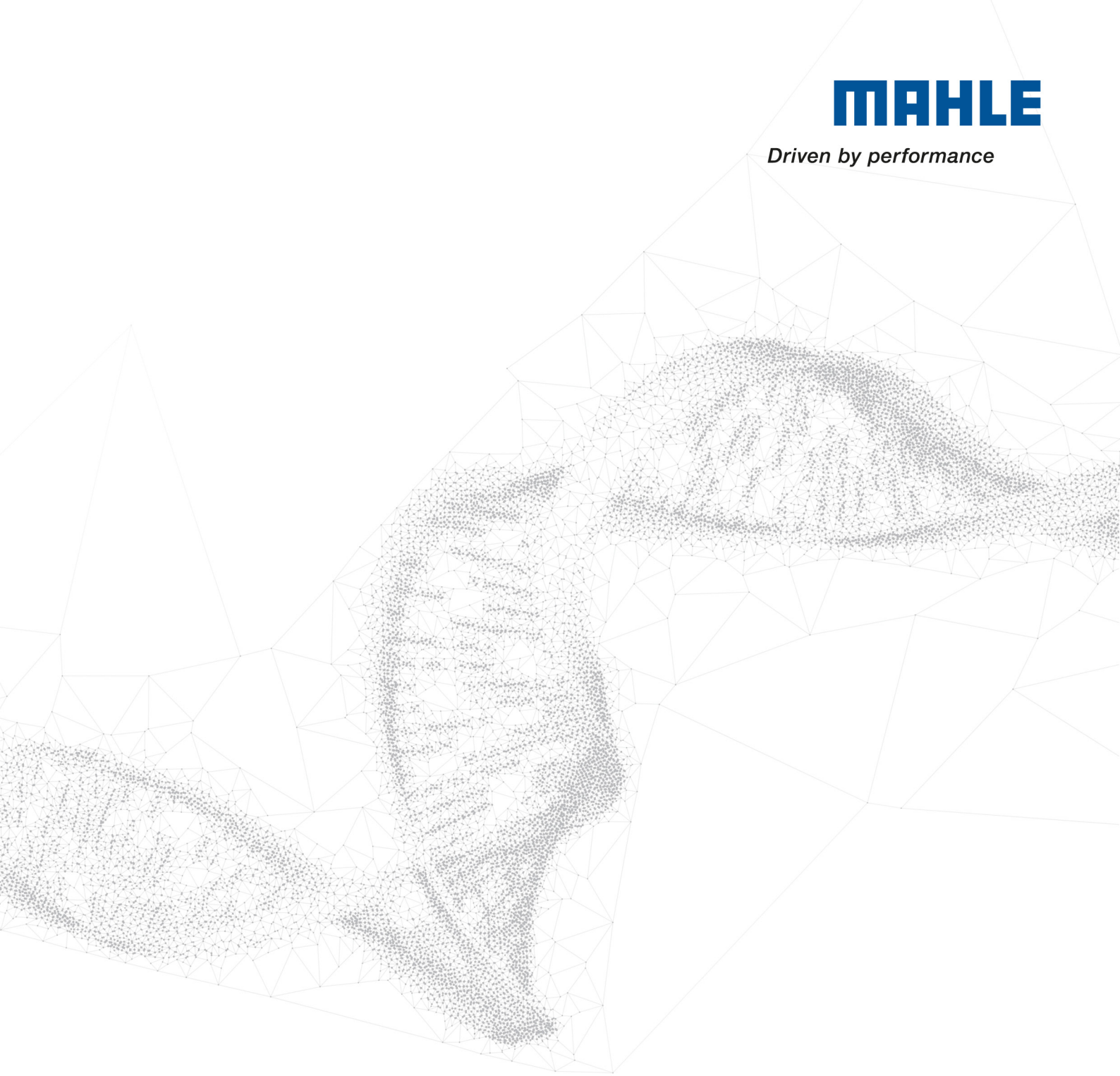
MAHLE

Driven by performance



ANNUAL REPORT 2015

MAHLE GROUP FIGURES

in EUR million	**2015**	**2014**	**2013**	**2012**	**2011**
Sales	11,486	9,942	6,941	6,159	6,002
EBITDA	1,093	1,022	771	725	759
EBIT	511	514	422	401	425
Result from ordinary activities	309	401	307	267	351
Net income	122	279	236	149	231
Tangible fixed assets	2,888	2,446	2,167	1,561	1,562
Capital expenditure on tangible fixed assets (without first consolidation)	564	488	397	324	319
Equity	2,667	2,555	2,207	1,775	1,696
Dividend paid by MAHLE GmbH	6.0	8.5	7.1	5.0	7.0
Headcount (as at Dec. 31)	75,635	66,234	64,345	47,662	48,818

THE MAHLE PRODUCT PORTFOLIO

ENGINE SYSTEMS AND COMPONENTS

Since the founding of our company, the development of piston systems and cylinder components has been one of our core competences. MAHLE's power cell units (PCU) consist of coordinated pistons with piston rings, pins, connecting rods, bearing bushings, and cylinder liners. Their great success clearly demonstrates that as a supplier who understands the interaction of all engine components, we are able to offer our customers optimal solutions.

Valve train systems control the gas exchange, and therefore play a significant role in optimizing the combustion process. We are the only manufacturer in the world to develop and produce all major components in-house. By applying our strong expertise in design, analysis, materials technology, and process development, we can thus meet the challenge of mastering extreme mechanical and thermal stresses.

FILTRATION AND ENGINE PERIPHERALS

As early as 1926, MAHLE recognized that filters increase the service life of the engine and consequently started their development. Today, we are one of the world's leading suppliers to the automotive industry. When it comes to air management, MAHLE offers a broad range of products—from unfiltered air intake to filtration and induction by the intake module through to the combustion chambers. It also comprises integrated solutions for charge air cooling and exhaust gas recirculation. Our interdisciplinary systems competence also comes into play in liquid management. Fuel filters need to have the highest separation levels when it comes to alternative fuels and varying levels of fuel quality. The rise in lubricant contamination from low-friction oils and combustion processes is placing increasingly higher demands on oil management, which we are able to meet with our innovative filter systems.

THERMAL MANAGEMENT

Efficient thermal management is not only of crucial importance for new generations of vehicles with combustion engines, but also for alternative drive systems. It regulates the heat flows in the vehicle and thus contributes considerably to compliance with stringent emissions and consumption legislations. New tasks include air conditioning in the powertrain, such as cooling sensitive lithium-ion batteries. In fall 2013, MAHLE took over the majority share in Behr. This was supplemented by the acquisition of the thermal business from U.S. automotive supplier Delphi in 2015. Today, MAHLE is the world's second largest automotive supplier for thermal management products. The success story of integrated indirect charge air cooling, which was developed in-house, best exemplifies the synergy effects that arise when all of the MAHLE units pool their expertise.

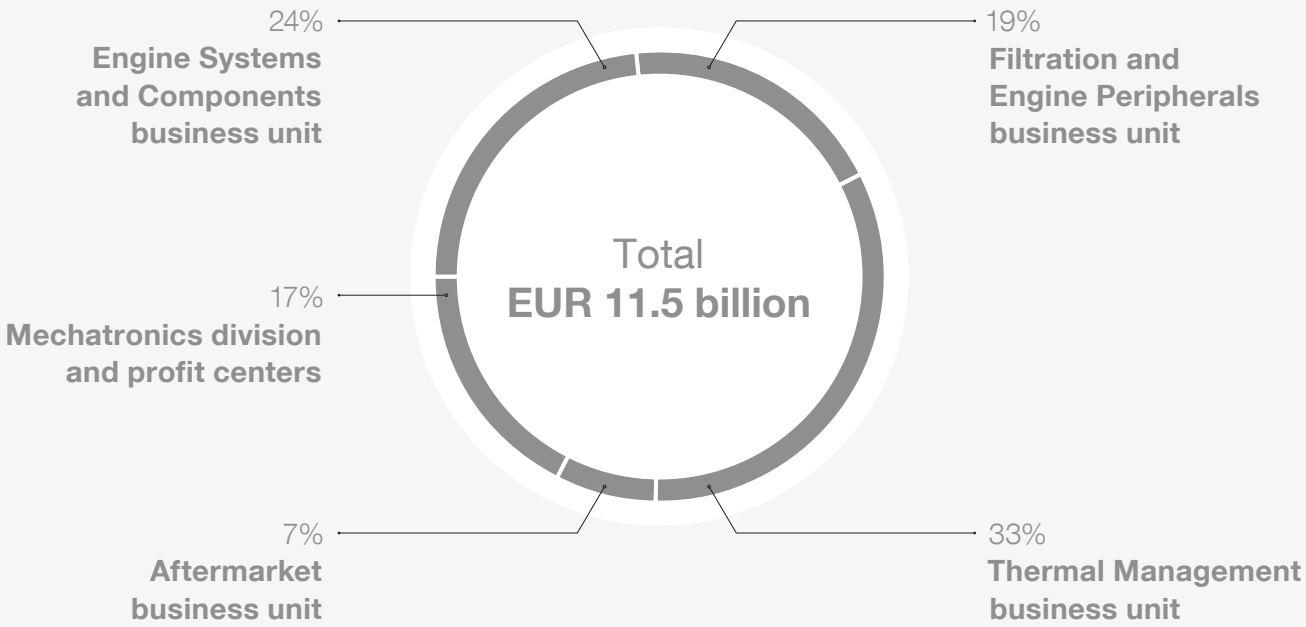
MECHATRONICS, ELECTRIFICATION

Alongside the optimization of mechanical powertrain components, mechatronic components are taking on an ever more important role. MAHLE develops and manufactures these in-house. Since the takeover of the Slovenian company Letrika in autumn 2014, it can thus also supply its customers with innovative electric motors, mechatronic alternators, and electric drive systems. 2015 saw the addition of Japanese mechatronics specialist Kokusan Denki with its electric motors for ABS and ESC units for driving dynamics control, steering assistance, and industrial applications. MAHLE can thus powerfully support both the increasing electrification of the powertrain and the further development of e-mobility.

MAHLE AT A GLANCE

As one of the world's 20 largest suppliers and a development partner to the automotive industry, MAHLE offers innovative mobility solutions that stand for clean air, fuel efficiency, and driving pleasure. Our product portfolio for passenger cars and commercial vehicles demonstrates our unique systems competence, as it addresses all crucial issues related to the powertrain and air conditioning technology—from engine systems, filtration, and electrics/mechatronics through to thermal management. The group supports manufacturers as early as in the development of new vehicle generations, not to mention the continuous improvement of series production applications. Proof of our technological leadership is not least to be seen in our successes in motorsport—be it in Formula 1 or in Le Mans. Moreover, our innovative products are used in stationary applications, mobile machinery, as well as in railroad, marine, and aerospace applications. And of course, we also supply workshops and engine repair workshops with MAHLE products in original equipment quality.

SALES BY SEGMENT



For details on the organizational structure, *see page 63*

DRIVEN BY PERFORMANCE

Our goal is to be a technological driving force for efficient, environmentally friendly mobility. As a leading global development partner to the automotive and engine industry, we offer our customers complete systems that stand out by the unrivalled width and depth of our product range.

We support them during the development of new vehicle generations with our long-standing expertise, which we are continuing to strengthen through the networking of our operational units. We are constantly striving for the best possible solutions and realize them with products that meet the highest quality standards. In order to fulfill the expectations of our customers both quickly and flexibly, we are consistently expanding our global presence.

Our strategy and business decisions are based on the legacy and values of our company's founders. To that effect, we feel obliged to act in a sustainable and responsible manner toward our employees, customers, suppliers, the environment, and society.

The Mahle brothers have bequeathed us a company structure that safeguards our independence. It guarantees the long-term planning and orientation of the group. Building on this foundation, we want to develop MAHLE further as a leading company and attractive employer by means of our innovative products and services, and thus continue along the group's successful path. A path that we have already described for many years with our slogan "Driven by performance".

CONTENT

You will find the report online on:
www.annualreport.mahle.com

When you see this icon in the report, there is a video with further information on that topic.

Step 1 › Install
Download the appear2media app. It is available free of charge from the appropriate iOS and Android app stores.

Step 2 › Open
Open the app and select “MAHLE.”

Step 3 › Scan
Simply hold your device over the icon (as pictured above) on the page until the video appears.

CEO'S LETTER

The MAHLE DNA—what drives us.

Ladies and Gentlemen,

Over the past few years, MAHLE has changed and developed significantly. Our company has seen remarkable growth: in sales, its structure, and its global presence. Today, the MAHLE Group ranks among the 20 leading companies in the automotive supply industry worldwide. Systems and components from MAHLE can be found in more than every second vehicle produced globally in 2015.

In 2015, we once again undertook important groundwork to move our company forward. For example, MAHLE completed its acquisition of Delphi Thermal, which—together with the integration of Behr in 2013—now makes us the second largest supplier of solutions for thermal management in vehicles. In the middle of 2015, we also further expanded our expertise in the area of mechatronics, with the complete takeover of Kokusan Denki. The integration of Letrika in the previous year laid the foundation for this important new business segment.

Our company's founders, the Mahle brothers, entrusted us with the task of driving the company's development while always ensuring the independence of the MAHLE Foundation as the sole owner. This objective motivates us and is an integral part of the MAHLE DNA. It played a crucial role in the decision-making process for the most recent acquisitions. However, it also means that we must constantly be aware of our earning power, particularly following large company acquisitions. We achieve this with streamlined structures and by working constantly and consistently to improve our competitiveness.

Our mission is—and always will be—to offer innovative mobility solutions that stand for clean air, fuel efficiency, and driving pleasure. We aim to fulfill this mission along the entire powertrain, regardless of whether the vehicle is driven by a combustion engine, battery, or fuel cell. We will continue striving to overcome the technical challenges of the various powertrain types in order to develop inspiring solutions for our customers. This was one of the main objectives for the expansion and strategic development of our company in 2015.

This evolution builds upon a solid bedrock of perennial factors that have shaped our company since it was founded: Never being satisfied with what we have already achieved. The relentless quest for an even better solution. And above all, a love for the automobile and its technology. These factors are what drives us to find even better solutions that take our customers to the next level. This solid foundation is also an integral part of MAHLE's DNA.

Within our company, the strands of this DNA are formed by many individual processes and ongoing developments. But most of all, it is made up of the people at MAHLE. With their commitment and ideas, they—all of them—are the driving force of our company. They embody values such as fairness, transparency, legality, cultural diversity, and social responsibility. Behind every system, behind every component and every service we offer our customers, there is a woman, a man, or an entire team at MAHLE exemplifying these characteristics and values. In fact, the motto "People come first" is also a principle passed down to us by the Mahle brothers—one that still guides our actions today.

Our mission is—and always will be—to offer innovative mobility solutions that stand for clean air, fuel efficiency, and driving pleasure.

In the magazine section of this annual report, we have included a few examples to help you understand what drives our company and the people at MAHLE day after day. You will also discover where our company's products and solutions are used—which may surprise you in some cases. By means of examples, this section provides insight into the broad expertise of our company and demonstrates MAHLE's comprehensive capabilities as a driver of automotive engineering—now and in the future.

Together with my colleagues on the Management Board, I would like to thank the Supervisory Board, the members of MABEG, and the employee representatives for their strong cooperation during the 2015 business year. But most importantly, our special thanks must go to our approximately 76,000 employees around the world. With their motivation, expertise, and experience, they determine MAHLE's DNA. They are the ones who bring about innovative solutions, sustainable systems, high quality, reliability, and fascinating technical approaches. In a nutshell: they are the true creators of MAHLE products.

Wolf-Henning Scheider
Chairman of the Management Board
and CEO of the MAHLE Group

Wolf-Henning Scheider
Chairman of the Management Board and CEO of the MAHLE Group

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Instructions on page 2 or on www.annualreport.mahle.com

MANAGEMENT COMMITEE

As at April 2016

F. l. t. r.:
Wilhelm Emperhoff, Michael Glowatzki, Olaf Henning, Arnd Franz, Wolf-Henning Scheider, Dr. Rudolf Paulik, Dr. Jörg Stratmann, Michael Frick

Wolf-Henning Scheider

Chairman of the Management Board and CEO, Research and Advanced Engineering, Corporate Planning, Corporate Communications, Engineering Services, Motorsports, and Special Applications profit center

Wilhelm Emperhoff

Filtration and Engine Peripherals business unit, Mechatronics division, Industrial Filtration profit center

Arnd Franz

Automotive Sales and Application Engineering, Aftermarket business unit

Michael Frick

Finance, Corporate Controlling, IT Services, Insurances, Revision

Michael Glowatzki

Director of Personnel, Human Resources, Legal

Olaf Henning

Aftermarket business unit

Dr. Rudolf Paulik

Engine Systems and Components business unit, Group Quality Management, Large Engine Components and Small Engine Components profit centers

Dr. Jörg Stratmann

Thermal Management business unit, Industrial Thermal Management, Compressors, Control Units, and Front-end Modules profit centers

REPORT OF THE SUPERVISORY BOARD

The middle of 2015 saw a change at the helm of the MAHLE Group. Dr. Klaus Peter Bleyer stepped down after more than two decades as a member and as Chairman of the Supervisory Board and of MABEG, the shareholders' committee with sole voting rights. During this time, he played a crucial role in shaping the development of MAHLE. The Supervisory Board would like to express its deepest gratitude for his many years of meritorious work as Chairman of these committees.

After also nearly two decades as Chairman of the Management Board and CEO, Professor Dr. Heinz K. Junker's transition to Chairman of the Supervisory Board and Chairman of the shareholders' committee with sole voting rights comes at a time of fast-paced growth and sustainable changes to the group's product portfolio.

In 2015, group sales were significantly increased compared to the previous year due to the acquisition of Delphi Automotive PLC's thermal management business, which was initiated in the first half of the year, and the first consolidation of the electric and mechatronic activities of the Slovenian Letrika Group as well as the Japanese company Kokusan Denki. The MAHLE Group's dependency on the revenues from products for passenger car internal combustion engines could thus be reduced to less than 50 percent. The only satisfactory development of profit is primarily attributable to special effects from the M&A transactions and the market weaknesses in South America and eastern Europe as well as the economic slowdown of the Chinese market. Yet, the actions planned and implemented by the Management Board have ensured that operational sales and profitability targets were achieved in an admittedly difficult economic environment.

In the 2015 business year, the Supervisory Board met all of its obligatory responsibilities in accordance with the law, Articles of Association, and Rules of Procedure. It held a total of four meetings in the business year.

During the year under report, the Supervisory Board was informed regularly, promptly, and comprehensively through verbal and written reports from the Management Board and during meetings about the business development of the company, the group, its business units, the profit centers as well as its participations.

The Supervisory Board has discussed at length all of the Management Board's proposals concerning medium- and long-term strategy developments and was involved in all decisions.

Along with the operational and strategic issues, the implementation of the new law for the equal participation of women and men in managerial positions was also discussed in these meetings.

Furthermore, a detailed efficiency audit of the Supervisory Board's activities was carried out and the corresponding optimization measures decided upon.

The Supervisory Board would like to thank the long-serving Deputy Chairman Mr. Bernd Hofmaier-Schäfer, who retired at the end of 2015, for the trustful cooperation and his ongoing efforts to find sustainable compromise solutions in the best interests of the company and its employees.

Mr. Uwe Meinhardt was elected new Deputy Chairman by the Supervisory Board with effect from January 1, 2016. Mr. Uwe Schwarte and Mr. Michael Kocken were appointed to the Supervisory Board as employee representatives by supplementary resolution of the district court, with effect from January 19 and March 19, 2016, respectively. Mr. Schwarte hereby replaces Mr. Bernd Hofmaier-Schäfer and Mr. Kocken replaces Mr. Patryk Krause in the Supervisory Board.

On April 1, 2015, Mr. Wolf-Henning Scheider was appointed as member of the Management Board of MAHLE GmbH, and he assumed the role of Chairman of the Management Board and CEO on July 1, 2015.

The appointed auditors PricewaterhouseCoopers AG audited the annual financial statements and management reports of the MAHLE Group and of MAHLE GmbH for the 2015 business year, rendering an unqualified audit opinion. The Supervisory Board agreed with the results of the audit following in-depth analysis of the audit reports and the report from the auditors in the Supervisory Board meeting.

The Supervisory Board approves the annual financial statements and the management reports of the MAHLE Group and of MAHLE GmbH, and does not raise any objections to the appropriation of income as proposed by the Management Board.

Professor Dr. Heinz K. Junker

Chairman of the Supervisory Board
MAHLE Group

The Supervisory Board would like to express its thanks to the members of the Management Board and all employees of the MAHLE Group for their high level of successful commitment in 2015.

Stuttgart/Germany, April 20, 2016

For the Supervisory Board

Professor Dr. Heinz K. Junker
Chairman of the Supervisory Board
MAHLE Group

IMPRESSIONS OF 2015

January

ORDERS FOR FUTURE PRODUCTS

MAHLE impresses a major German automobile manufacturer with its performance- and weight-optimized condenser based on KOMO technology as well as the benefits of the MAHLE EVOTEC® 2 aluminum piston with regard to weight and CO_2 optimization.

February

SUPPLIER AWARD FROM CUMMINS

Cummins nominates MAHLE Metal Leve S.A. in Mogi Guaçu/Brazil as “Best Supplier of the Year 2014.”

Heiko Pott, Vice President Engine Components and Systems South America, and Alex Savelli, Cummins, at the award ceremony

April

PACE AWARD FROM AUTOMOTIVE NEWS

The MAHLE lightweight piston EVOTEC® 2 receives the prestigious PACE Award in the “Product” category. The expert jury commends the innovative design of the piston, which contributes to the efficiency of gasoline engines and withstands demanding thermomechanical loads.

Jochen Adelmann (left), head of power cell unit technology for passenger cars at MAHLE, accepts the award from Jeffrey Sprague, President Transportation Research Center (TRC).

May

WORLD EXCELLENCE AWARD IN SILVER FROM FORD

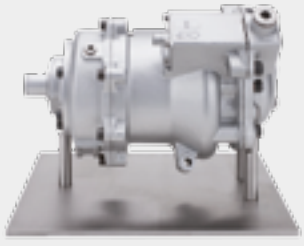
With this award, Ford acknowledges MAHLE’s exceptional commitment with regard to quality and performance. It involved dealing with a record number of worldwide product launches.

F. l. t. r.: Hau Thai-Tang, Group Vice President Ford, Wolf-Henning Scheider, CEO MAHLE, and Mark Fields, President and CEO Ford.

May

ACQUISITION OF AMOVIS GMBH

Founded as a start-up in 2003, the innovative company has a high level of competence in intelligent exhaust gas heat recovery using the ORC (Organic Rankine Cycle). ORC systems are an advanced development of the steam cycle, in which the waste heat from combustion engines is not released into the environment via the exhaust gas, but used to generate electrical or mechanical energy. This means that fuel consumption in commercial vehicles, for example, can be reduced by up to four percent, thereby significantly reducing CO_2 emissions.



Highly efficient and extremely economical axial piston machine

May

EXPANDED ACCESS TO CAPITAL MARKET

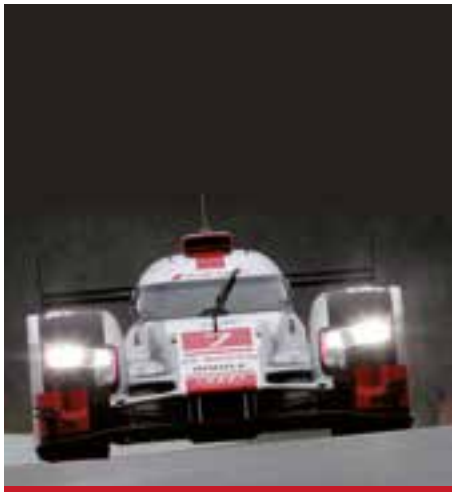
Following the steady growth of the group, MAHLE expands its financing strategy and increases the Debt Issuance Program (DIP) launched at the beginning of 2014 from EUR 1 billion to EUR 2 billion. Investor update meetings are held in Frankfurt, London, Munich, Paris, and Zurich. The ensuing broadening of the investor base increases the flexibility and independence of the group.

June

NEW PLANTS OPENED

In Mexico, plants in Ramos Arizpe and Celaya are inaugurated. They will manufacture air conditioning modules and air cleaner systems for the markets in North and South America. By the end of 2015, more than 9,000 employees work for MAHLE at 13 plants in Mexico. Moreover, a plant for producing air conditioners as well as components and systems for engine cooling is opened in Chengdu/China. MAHLE is thereby represented by 22 locations in the important growth market of China.

Ceremonial inauguration in Chengdu



June

THIRD PLACE FOR AUDI AT LE MANS—WITH MAHLE INSIDE

The overall performance of the brand with the four rings is impressive: in each of the 17 Le Mans races held since 1999, at least one Audi team stepped onto the podium. And all crossed the finish line with extremely durable, ultralight motorsport steel pistons and engine components from MAHLE.

June

SUPPLIER AWARDS FROM PSA

MAHLE Componentes de Motores S.A. in Murtede/Portugal is honored with the "Best Plant" award. MAHLE Metal Leve S.A. in Jundiaí/Brazil receives the "Supplier Award—LATAM."

F. l. t. r.: Germano Mairano (PSA), Thomas Jose Carlos Klein (MAHLE), and Olivier Le Sait (PSA) at the award ceremony

July

KOKUSAN DENKI BECOMES PART OF THE MAHLE GROUP

The Japanese company Kokusan Denki is a specialist in mechatronic products. It develops and produces electric motors for ABS and ESC units, steering assistance, as well as industrial applications. Kokusan Denki is thus an important building block for the strategic development of our mechatronics and electrification activities.

July

CHANGE AT THE HELM OF THE GROUP

Prof. Heinz K. Junker steps down from his position as Chairman of the Management Board to assume the chairmanship of the Supervisory Board. MAHLE has developed impressively under his leadership of almost 20 years. Prior to his joining, the company generated sales of approximately EUR 1.26 billion with around 15,000 employees—of which over 8,000 were based in Germany—at 29 production locations. In 2015, sales reached EUR 11.5 billion with approximately 76,000 employees at over 170 locations in 34 countries. His successor is Wolf-Henning Scheider.

Ceremonial handover of the first MAHLE compressor in Suzhou/China; left: Dr. Jörg Schernikau, head of the Compressors profit center; right: Meisen Li, plant manager Suzhou/China

July

TAKEOVER OF THERMAL MANAGEMENT BUSINESS FROM DELPHI

This acquisition supports the strategic expansion of the crucial thermal management growth sector. Approximately 8,000 new employees from all regions of the world join the MAHLE Group. The product portfolio ranges from air conditioning modules and compressors to cooling components.

July

SUPPLIER AWARDS FROM CATERPILLAR

Caterpillar honors MAHLE Engine Components USA, Inc. in Morristown/USA with the "Supplier Quality Excellence Process" award in gold. MAHLE Metal Leve S.A. in Itajubá/Brazil is distinguished with the "Supplier Quality Excellence Process" award in silver.

August

VISCO® TECHNOLOGY CONVINCES

MAHLE is entrusted by a renowned manufacturer of commercial vehicles with the supply for the European and North American markets of variable coolant pumps for their main engine platform.

TECHNOLOGY DAYS

Technology Days like the one at MAN enable us to further intensify our cooperation with customers in development projects.

September

VW AND MAHLE BECOME WORLD RALLY CHAMPION

Volkswagen celebrates a phenomenal success at the FIA World Rally Championship (WRC). Sebastien Ogier and Julien Ingrassia win the Drivers' and Co-drivers' titles for the third time in a row—with the NIKASIL®-coated cylinder crankcase from MAHLE inside.

September

A NEW STAND AT THE IAA

Clean air, fuel efficiency, and driving pleasure: these values are significant drivers for future development and shape our research and development activities—as our appearance at the IAA Cars 2015 shows.

September

50 YEARS OF MAHLE FOUNDATION

The meeting days held at the Hospitalhof in Stuttgart on the occasion of the MAHLE Foundation's 50th birthday are as colorful and joyful as life itself. Under the motto "man—development—future," they provide insight into the diverse activities of the foundation, which was incepted by the Mahle brothers and is financed by MAHLE dividend payments.

October

BMW WINS DTM MANUFACTURERS' TITLE

BMW obtains the best manufacturer's title at the DTM finals in Hockenheim. The BMW M4 DTM is equipped with forged pistons and bearings from MAHLE.

September

MAJOR FOLLOW-UP ORDER FOR OIL FILTER MODULES WITH ECO-ELEMENTS

MAHLE receives a follow-up order from a German premium manufacturer to supply oil filter modules with integrated oil coolers taking environmental concerns into account, for their modular engines in Europe and China.

September

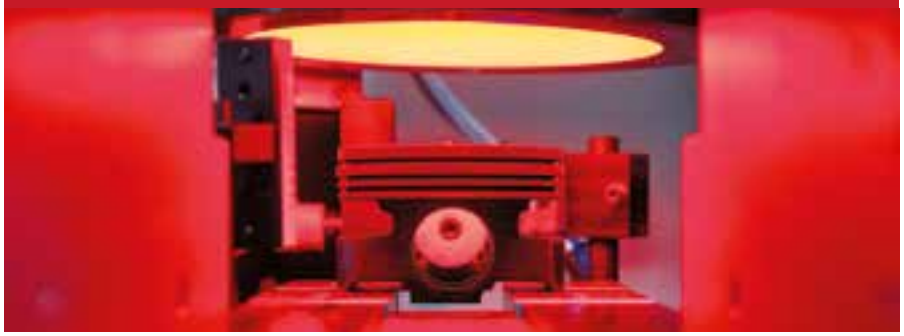
SUPPLIER AWARDS FROM NISSAN

MAHLE Guangzhou Filter Systems Co., Ltd. in China receives the "Supplier Quality Award—China Regional Quality Award" and is also classified as an "Excellent Supplier." MAHLE Filter Systems Japan Corporation in Ibaraki is honored with the "Best Performance Most Excellence Award."

October

MILLIONTH PASSENGER CAR STEEL PISTON DELIVERED

The innovative pistons are manufactured on the world's first fully automated production line for passenger car steel pistons and are used in Renault's 1.5- and 1.6-liter, four-cylinder diesel engines. The automobile manufacturer distinguished MAHLE with the "Innovation" supplier award for the development of the piston.



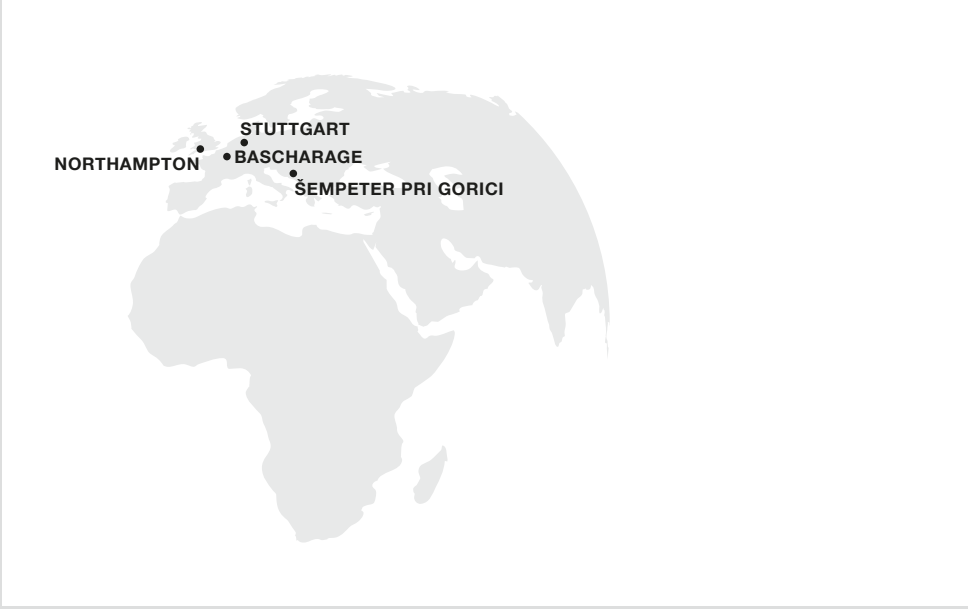
December

ELEVEN BILLION EURO SALES MARK SURPASSED FOR THE FIRST TIME

At EUR 11.5 billion, the sales of the MAHLE Group hit a new all-time high in 2015; this affords the group the basis to shape key topics of the future.

MAHLE—A WORLDWIDE NETWORK

As at December 31, 2015



WORLDWIDE

Over 170 production locations
15 major development locations
About 76,000 employees

EUROPE

COUNTRIES
Bosnia and Herzegovina, Germany, France, Great Britain, Italy, Luxembourg, Netherlands, Austria, Poland, Portugal, Romania, Russia, Sweden, Slovakia, Slovenia, Spain, Czech Republic, Turkey, Hungary, Belarus

74 production locations
35,014 employees[1)]

AFRICA

COUNTRIES
South Africa

2 production locations
915 employees[1)]

DEVELOPMENT LOCATIONS

Bascharage/Luxembourg
Northampton/Great Britain
Šempeter pri Gorici/Slovenia
Stuttgart – Bad Cannstatt/Germany
Stuttgart – Feuerbach/Germany

NORTH AMERICA

COUNTRIES
Canada, Mexico, USA

29 production locations
15,286 employees[1)]

SOUTH AMERICA

COUNTRIES
Argentina, Brazil

12 production locations
9,644 employees[1)]

DEVELOPMENT LOCATIONS

Amherst, New York/USA
Detroit – Farmington Hills, Michigan/USA
Detroit – Troy, Michigan/USA
Lockport, New York/USA
São Paulo – Jundiaí/Brazil

ASIA/PACIFIC

COUNTRIES
China, India, Indonesia, Japan, Philippines, Singapore, South Korea, Thailand

54 production locations
14,776 employees[1)]

DEVELOPMENT LOCATIONS

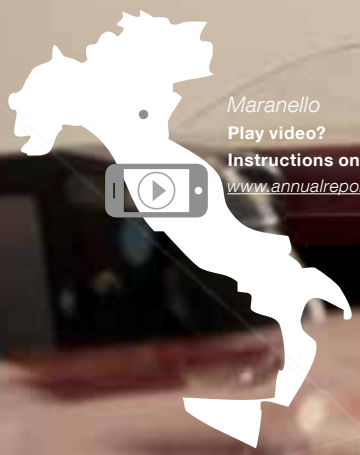
Numazu/Japan
Pune/India
Shanghai/China
Tokyo – Kawagoe/Japan
Tokyo – Okegawa/Japan

[1)] *Respectively total number of employees by region, incl. development locations and sales branches*

You will find the detailed list of our locations here:
mahle.com/mahle/de/about-mahle/locations/locations.jsp

CLOSE TO THE HEART AND SOUL OF THE ENGINE

MOTORSPORT DEVELOPMENT FOR FORMULA 1



Maranello

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MAGAZINE

"Cover the turbo!" Mattia Binotto takes the utmost care to ensure that unauthorized eyes cannot fall upon anything secret in his "Holy of Holies." Especially not when a camera is present. A bright red cover is quickly placed over various components. The overalls of the mechanics working in Binotto's workshop—though the term "workshop" is almost misleading here as the room is the size of a school sports hall—are also bright red. In this light hall with its bright red walls, an almost reverent silence prevails. No clatter of tools, no hissing of compressed air that would be noticeable in other workshops. Instead, there is an artistic atmosphere more reminiscent of a studio.

The work of art being created here is a complex ensemble of different parts made from aluminum, steel, titanium, and many other materials. When this powerhouse finally unleashes its magic, it brings pleasure to millions of people at race tracks all over the world and in front of countless TV screens. "First comes the engine, because it has a soul. The rest comes after," is the slogan displayed in the reception area of "Gestione Sportiva"—on a bright red wall, of course. This is Enzo Ferrari's legacy to everyone who works in the racing department. The mechanics have internalized the founder's mission, and here in Maranello, in the middle of Emilia-Romagna, a region of Northern Italy, they work meticulously on a small technical marvel. This, of course, is the work of transforming a metal block, pistons, valves, and spark plugs into a legend: a Ferrari engine.

"Ciao Fred, come stai?" There are no eyebrows raised when Fred Türk appears among the mechanics in the famous red overalls. Smiles, handshakes, and waves greet the head of MAHLE Motorsports as he enters the hall where the new Formula 1 engines are manufactured under the supervision of chief engineer, Mattia Binotto. Türk has worked at MAHLE for 30 years and has been involved in motorsport throughout that time. The collaboration between the Stuttgart-based supplier and Scuderia Ferrari goes back even further—namely to the mid-70s. The relationship is based on mutual appreciation and respect.

Türk and Binotto have now known each other for more than 20 years. "It's more than collaboration. It's a friendship," stresses the

"When it comes to technology, there's no German or Italian. We speak the same language."

Fred Türk, *head of MAHLE Motorsports (left)*

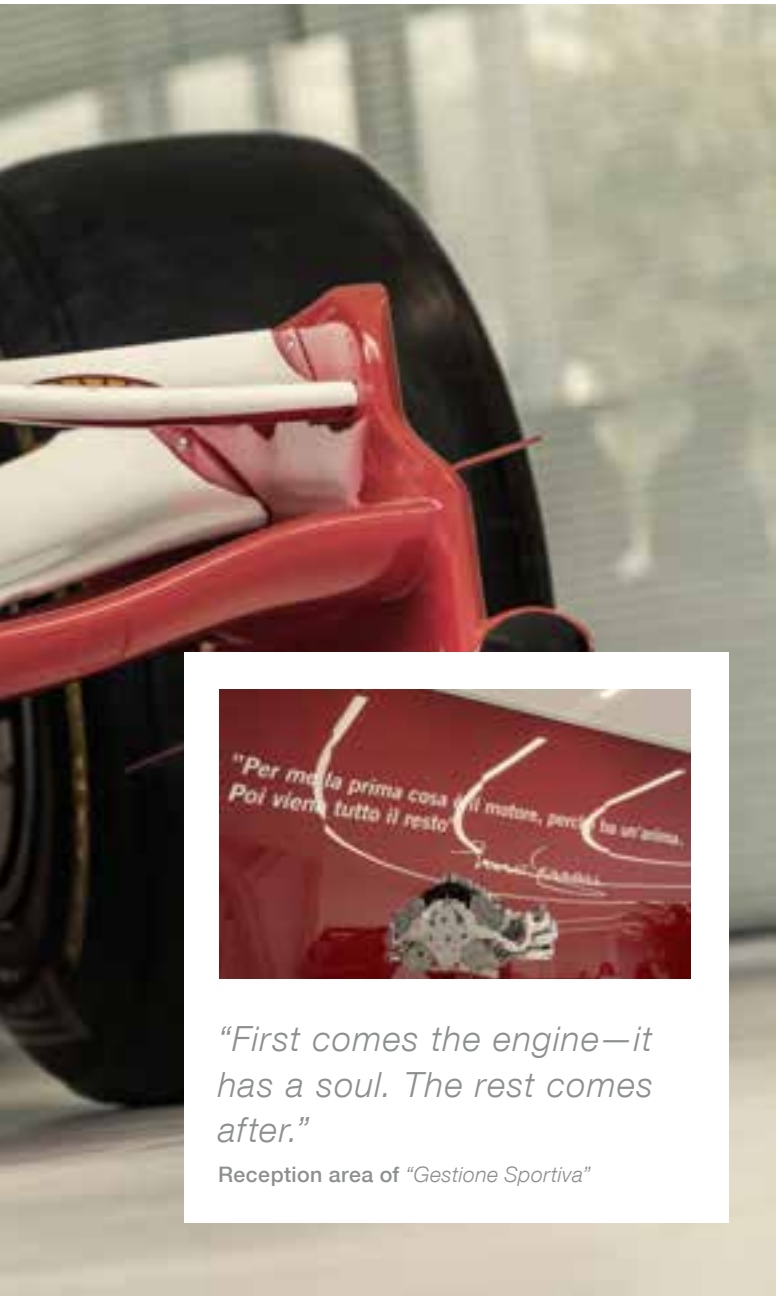
Italian. What unites the two engineers is their love for detail and a fascination with developing new ideas for squeezing even more performance out of the gasoline engine in order to win races. "When it comes to technology, there's no German or Italian. We speak the same language," Türk notes, laughing.

Besides numerous components, the head of MAHLE Motorsports and his colleagues develop and supply the pistons that make up—in Binotto's words—the heart of a Ferrari engine. And that is the intention. "We can't develop all the components ourselves, because we are not specialists in every field. That's why we rely on partners like MAHLE, who have this expertise," underlines Binotto, who joined Ferrari when Jean Alesi and Gerhard Berger were driving the red racing cars with the famous horse logo to victory. He subsequently worked for many years as the race engineer responsible for Michael Schumacher. For the past two years, he has been responsible for all engine development in Ferrari's racing department.

The services of the MAHLE experts from Fellbach, near Stuttgart, are currently in great demand in Maranello: "With the F1 regulation changes introduced in 2014, we are facing challenges like I've never experienced before," explains Binotto. The restriction on the amount of fuel for each Grand Prix has caused particular headaches for racing engine designers. Binotto's approach is clear: "The engines must be more efficient so that we can make optimal use of every gram of fuel."

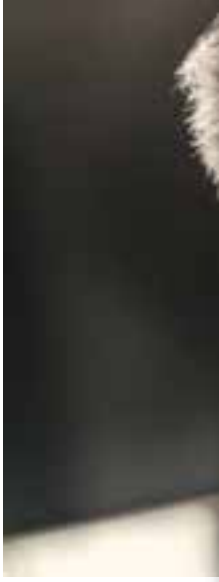
At first glance, this requirement sounds like a contradiction in terms. How can engines be efficient when they do not perform their function optimally until they reach more than 10,000 revolutions per minute? Fred Türk smiles patiently at such an amateurish question: "These engines are actually far more efficient than a powertrain for series vehicles. Racing engines get much more out of the fuel than normal engines. We achieve efficiencies of over 40 percent." This indicates how well the engine is able to convert the energy contained in the fuel into driving power. In other words, racing engines get much more out of the fuel than normal engines. All the teams that take part in Formula 1 master this art. However, to win a Grand Prix you need more power and speed than the competition, without using more fuel.

In Fellbach, the MAHLE Motorsports engineers have found the right solution for Scuderia Ferrari. More than five years of development preceded that crucial phone call to Maranello with the proposal: "We've found an interesting new solution for you." MAHLE Jet Ignition is the name of the innovation that gives the engines from Maranello a boost. "Within a few weeks, in spring 2015, we adapted our solution to the Formula 1 requirements, allowing Ferrari to compete in Canada with this solution for the first time," recollects Türk. During this race, Kimi Räikkönen drove the fastest lap, providing a glimpse of what the new engine could do. That was at the beginning of June. At the end of July, Sebastian Vettel won the Hungarian Grand Prix.



"First comes the engine—it has a soul. The rest comes after."

Reception area of *"Gestione Sportiva"*



Away from the main stage of Formula 1 Grand Prix racing, there is a tough competition taking place behind the scenes in development departments such as those of Mattia Binotto and Fred Türk. Who has found a new approach? Who will cope best with the regulation? On average, Ferrari produces a new racing engine every six months. “So, in principle, we can never say we are in the lead. The main thing is that we can keep pace,” says Binotto cautiously, keeping the competition in mind. Of course, at the same time, he does not want to reveal how far they have progressed with the new generation of engines. In order to develop the powertrains quickly, Ferrari relies on its partner from Germany in the same way as its own engineers. “Ferrari makes highly confidential company data available to us so that we can perform our development work in a targeted manner,” explains Türk. Considering the usually profound skepticism toward all non-Ferraristi, this is a seal of approval.

“The special nature of a collaboration always becomes apparent when things aren’t going so well. We have always dealt with each other fairly and in these cases we’ve always looked for solutions together,” says Türk, in praise of the strong relationship, and his Italian friend Mattia nods in agreement. The head of MAHLE Motorsports stresses that this is the only way to work intensively and continuously at the upper limit of what is technically possible. “I can only reiterate those words,” adds Binotto. “Formula 1 is not simply the top level of engine development in motorsport. It is the spearhead of the entire automotive industry. This is particularly true today, with so many technological innovations being introduced.”

The two experts deliberately leave open the question of when and how the new MAHLE Jet Ignition will be rolled out in series vehicles. “In any case, the potential is there. With this technology, the petrol engine can reach efficiency levels that are usually only achievable with diesel engines,” explains Türk. However, the technology used on the race track needs to be adapted to the conditions of everyday road traffic. “But this is a very, very promising approach,” says the engine expert. He has already witnessed a number of developments from Fellbach, long before they entered series production, that are now in use on the roads worldwide.

FROM RACING CAR TO SERIES VEHICLE

Motorsport has always been firmly embedded in the MAHLE DNA. These activities continuously give rise to innovations that are later used in series production applications. The most recent example is that of the steel piston for diesel engines, which was initially developed for the 24 Hours of Le Mans. The Mahle brothers already subjected their light-alloy pistons to critical testing during record runs. MAHLE is currently represented in a variety of motorsport series with—in some cases—specially developed components and systems. Besides Formula 1, these include the World Endurance Championship—of which the 24 Hours of Le Mans is part—, the German Touring Masters (DTM), the Sprint Cup of the NASCAR series in the USA, and the MotoGP, the premium class for motorcycles.

Since 2001, 175 employees have worked at the motorsport plant in Fellbach near Stuttgart—just a few kilometers from the MAHLE Group headquarters—to develop and produce special applications and small lots that are geared toward the requirements of motorsport and especially sporty vehicles. Here, the units of MAHLE Powertrain Manufacturing and Engineering, as well as Motorsports, were merged under the umbrella of Engineering Services, Motorsports, and Special Applications in 2013.

Over the past few years, the motorsport business segment has changed dramatically. In 2003, Formula 1 still required 20,000 pistons per season, and 80 percent of the Fellbach plant's capacity was being utilized. In order to limit this material war and allow even smaller racing teams to keep pace, today, only four engines may be used per driver in a motorsport season. Accordingly, the demand from Formula 1 has decreased to about 4,000 pistons for tests and races.

In the meantime, however, the small lot business for sports cars and high-performance vehicles has grown. With engine components produced in small quantities, MAHLE is able to fulfill the wishes of manufacturers who no longer want to let tuners alone dominate the market for sports cars with high-performance engines. Today, the business in this market segment accounts for around half of the activities of the motorsport plant. With this trend on the rise, a third production line for small lots commenced operation in 2015.

"Formula 1 is not simply the top level of engine development in motorsport. It is the spearhead of the entire automotive industry. This is particularly true today, with so many technological innovations being introduced."

Mattia Binotto, *head of technical development at Ferrari*

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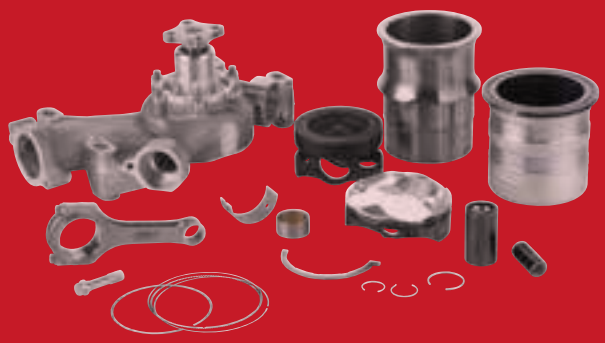

THE SPARK OF AN IDEA

One of the goals of development at MAHLE is to further improve the efficiency of engines. The newly developed MAHLE Jet Ignition lean burn combustion process relies on a special surface ignition, which in turn allows for higher engine performance. The ingenious trick here is that the air-fuel mixture is preignited in a prechamber around the spark plug. This results in the formation of plasma jets that reach the piston primarily at the outer edge and ignite the remainder of the mixture. While ignition normally takes place in the center of the cylinder, with MAHLE Jet Ignition it essentially takes place from the outside toward the inside. This allows significantly better combustion of the fuel mixture. The result: more power with considerably less residue.

MAHLE Jet Ignition makes a decisive contribution to fulfilling the new regulations in Formula 1: maximum performance with a limited quantity of fuel. With this lean burn combustion process developed by MAHLE Powertrain for Scuderia Ferrari, a substantially greater efficiency can be achieved than with previous ignition concepts, allowing for further improved performance in motorsport.

This is only an intermediate step, however. MAHLE is now developing the process further for series vehicles, as this technology opens the way for efficiency levels in gasoline engines that are otherwise only achievable with diesel engines. Tests on mass-production engines have already shown that previously unrivaled low consumption values are possible with MAHLE Jet Ignition in a gasoline engine.

"Formula 1 is not simply the top level of engine development in motorsport. It is the spearhead of the entire automotive industry. This is particularly true today, with so many technological innovations being introduced."

Mattia Binotto, *head of technical development at Ferrari*

Maurizio, the chef of the Montana restaurant, only momentarily diverts the attention of Fred Türk and Mattia Binotto from their enthusiasm for technology, with his antipasti, pasta, and fillets of meat. In "our unofficial canteen" (Binotto), where the Ferraristi invite good partners and customers, the two continue their intensive discussion about horsepower, injection nozzles, and piston pressure. Restaurateur Maurizio Paolucci doesn't mind. Quite the opposite: people with fuel in their blood are among his regular patrons. Fred Türk, "l'ingegnere tedesco" (the German engineer), is also a familiar face at the restaurant, of course, and is welcomed warmly by the whole Paolucci family. The back room of the Montana is adorned with fire-resistant race suits, helmets, and a collection of photographs of different Ferrari drivers and prominent visitors. Sebastian Vettel signed a life-size picture showing him together with chef Rossella: "Vielen Dank. War wieder lecker. Grazie mille." ("Perfect! It was delicious as always. Thanks a million.")

The restaurant illustrates that for Maranello and the surrounding region, Ferrari is more than just the employer of 3,000 people. For restaurants like Montana, pubs, souvenir shops, and grocery stores, Ferrari is the most important economic factor of all in this small town with a population of 17,000. "Ferrari always comes first," says Maurizio, standing behind the counter, almost fittingly, raising a finger in warning. He makes a living from the legend and enthusiasm for the red racing cars from Maranello, which are so much more than just cars that drive around in circles.

"We build dreams," states Mattia Binotto, demonstrating the great pride that he and his colleagues share. The fans of the brand want to dream, too, and see the "Reds" win. Binotto's fellow countrymen, in particular. The racing team is also a national icon. For many Italians, Ferrari is even more important than the "Azzurri"—the national football team. When "La Ferrari," with the large MAHLE logo emblazoned on the front end, races to victory, the country's newspapers talk about little else. Technology reaches the heart and soul of millions of people. A victory is, of course, also a confirmation of the work of Fred Türk and his MAHLE colleagues in Fellbach. "It's the reward for many hours of searching for a solution, often under intense pressure." And, of course, the elation is felt most strongly of all in Maranello, where, traditionally, the priest has a special task to fulfill. If he rings the church bells outside of the usual times, everyone in the town knows that Ferrari has won.

THE TEAM SPIRIT DRIVES US

THREE GENERATIONS AT THE ROTTWEIL PLANT

Rottweil

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"How many times have I taken this lift," ponders Karl Rendler, as the door of the freight elevator closes with a loud "ping!" The large metal box brings back memories. The machine fitter worked for twenty years at the Rottweil plant. He knows countless stories about this location like no other. "When I started here in 1965, the company still had its own farm," he recalls. Sure enough, alongside horses for the carts, the town nestled at the edge of the Black Forest also had chickens, goats, and pigs. Moreover, vegetable fields were cultivated, thus ensuring the canteen had a largely self-sufficient supply of food.

An industrial location with a farm attached—that has long been part of the MAHLE history in Rottweil, which started as early as 1943. The present plant situated on the outskirts of the town came into existence seven years later. On land steeped in history: old pottery kilns and wells from the Roman times were found during its construction, for Rottweil was already a Roman settlement in AD 73 (see infobox). Today, around 1,000 men and women work at the 100,000-square meter plant. Karl Rendler marvels as he strides along the 60-meter-long fully automated production line for steel pistons. With an expert's eye, he examines a finished piece and nods approvingly. So gracefully built, yet made of steel. "We could never have achieved that with our machines back then," he mutters knowledgeably.

The 93-year-old is accompanied by his son Herbert (60) and grandson Michael (31). These two also know their way around the Rottweil plant really well. Herbert Rendler is the plant's safety coordinator, and his son works as an adjuster in the production of aluminum pistons. They stand for three generations and a total of more than 75 years of MAHLE history. And they embody what has made the company great over the decades in a truly special way: the enthusiasm for technology and precision products. "When I was a boy, my father sometimes took me with him to the plant. Even then it was clear to me: I want to work here, too," explains Herbert Rendler. What's more, engines and cars have always fascinated him. He thus started training as an electrician in 1970. Decades later, Karl and Herbert

They stand for three generations and a total of more than 75 years of MAHLE history. And they embody what has made the company great over the decades in a truly special way.

F. l. t. r.: **Herbert Rendler (60), Karl Rendler (93), Michael Rendler (31)**

Rendler then passed on their enthusiasm for MAHLE to Michael. He also visited the plant with his father when he was a boy. “Machines have always fascinated me,” recalls the 31-year-old today. So he successfully completed his training as an industrial mechanic and has now been working in Rottweil since 2001.

Every day, thousands of pistons are made here for use in almost all vehicle categories, from compact cars through to heavy-duty

"Each one of us is called upon to look for possible improvements and to discuss these in the team."

Michael Rendler, *adjuster in the production of aluminum pistons*

"Even in difficult times, you are respected as a human being here. That was not the case in the other places where I have worked."

Karl Rendler, *MAHLE retiree*

commercial vehicles, not to mention racing car pistons for various racing series and prototypes for new engine generations.

The forging blanks are produced under heat and up to 1,000 tons of pressure at the in-house forge. It hisses and roars: here, jet flames accompany the manufacturing process of each individual forging. The cast blanks are in turn produced from special alloys in the in-house foundry. Their secret recipe is part of the success of the MAHLE pistons, because this is where the prerequisites for load capacity and reliability are established.

Some piston variants are also equipped with grey cast iron rings. To achieve an optimal connection to the aluminum, they are first immersed in a bath of liquid aluminum, shaken off, and then inserted into the so-called casting die. There, a casting ladle is used to carefully fill the alloy and the ring is cast-in. For a long time this production step was the result of perfect craftsmanship. In the meantime, robots have also mastered the elegant rotation of the wrist with which the last drops of excess metal are removed. No casting residues may be left behind if the ring is to be part of a perfectly seated piston, which reliably takes care of compression and thus drive over hundreds of thousands of kilometers.

Robots now even play a major role in the fully automated production of steel pistons for diesel engines (see info box). Karl Rendler observes with great interest how the robot arms grasp a piston, mill something on it, and then pass it on for further processing. When the senior worked here, robots were still something out of fantasy novels. Nevertheless, back then too, MAHLE was a technological leader. "We took the new machines apart as soon as they were delivered. Then we installed additional lubrication ducts, for example. The advantage of this was fewer breakdowns and thus fewer downtimes," declares the 93-year-old with obvious pride.

"Downtimes have always been a cost factor. Reducing these means gaining a competitive advantage," adds his son Herbert. This is why precautionary maintenance measures were already introduced in the 80s. And Karl Rendler was one of the pioneers in finding the sources of errors and developing solutions in order to reduce wear, disruptions, and thus downtimes. Always be one step ahead of the competition in all areas: the company's success has also been based on this philosophy for decades—and it has long become part of the MAHLE DNA.

ROTTWEIL—
A LOCATION STEEPED IN HISTORY

The town of Rottweil lies approximately 90 km south of Stuttgart. With a history of nearly 2,000 years, it is the oldest town in Baden-Württemberg. The first inhabitants were Roman soldiers in AD 73, who also founded a settlement next to the military camp. The medieval town center still remains intact today, with the “Black Gate” dating back to 1230, and many town houses and churches. From 1463, Rottweil belonged to the Swiss Confederation for nearly a century.

Rottweil is also known throughout the world for the dog breed of the same name. Since the Middle Ages, these dogs have been bred here for their life skills, intelligence, stamina, and herding abilities. Cattle dealers and butchers used them to guard and drive large herds of cattle, for up until the 19th century, the town was a cattle trading center from which cattle and sheep were herded to Alsace or Lake Constance via the Black Forest.

Once a year during the carnival season, this town with its 25,000 inhabitants attracts great attention across Germany, as they celebrate the Swabian-Alemannic “Fasnet” or carnival with hand-carved wooden masks (“Larven”) and costumes (“Häs”), following the strict guidelines of an old and closely guarded tradition. The highlight is the “Narrensprung” (“Fools’ Procession”) on Rose Monday, which attracts thousands of onlookers to the town.

100,000 SQUARE METERS

1,000 EMPLOYEES

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"Even in difficult times, you are respected as a human being here. That was not the case in the other places where I have worked."

Karl Rendler, *MAHLE retiree*

THE MILLIONAIRE

The MONOTHERM® steel piston from MAHLE is an impressive example of how diesel technology is developing. For in recent years, the sedately chugging unit for commercial vehicles has become a high-tech solution, which in terms of efficiency, low consumption, and the correspondingly low emissions, has surpassed the gasoline engine. High-performance diesel engines are now among the most successful units in endurance races such as the 24 Hours of Le Mans. The steel pistons from MAHLE have also proven their performance under these extremely tough requirements.

One of the characteristic features of these state-of-the-art diesel engines is the high injection pressures with which fuel is injected into the combustion chamber. Today, 2,000 to 2,500 bar is common—and the upward trend is unbroken. The reason is simple: optimized combustion can only take place at a high injection pressure since it guarantees optimum performance with low emissions. The development of modern engine concepts is simultaneously moving toward peak combustion pressures of over 200 bar. Under these circumstances, aluminum pistons are pushed to the limits of their performance while steel offers significant advantages in the long term due to its higher strength. This not only more than offsets its higher density, but the piston has a much more sophisticated design, which also means there are no overall weight disadvantages.

The greatest advantage of steel pistons compared with aluminum pistons is the reduction in CO_2 emissions. This is primarily achieved through a significant decrease in frictional losses as well as thermodynamic combustion advantages. In comprehensive measurement campaigns, MAHLE was able to demonstrate fuel consumption savings of more than three percent.

The MONOTHERM® steel piston for passenger car engines is produced in Rottweil on 60-meter-long fully automated production lines, each with 17 machining stations, 11 robot cells as well as integrated 100-percent testing machines and cleaning units. The mandatory cooling channel used for the optimum cooling of the piston is machined by means of highly sophisticated special tools, some of which are smaller than the head of a match.

The MAHLE Rottweil plant started producing MONOTHERM® pistons in November 2014. A second production line was added in May 2015, and by October the location had already produced its millionth steel piston. These steel pistons are used by three manufacturers in 26 different vehicle models. Since the demand for efficient, high-performance diesel engines is growing substantially, the first production line at MAHLE's Turkish plant in Izmir already went into operation in November 2015; a second one followed at the beginning of 2016. MAHLE can now produce a total of 2.3 million steel pistons each year.

Robotics also illustrates how jobs have become much more demanding over the years. While Karl Rendler was able to establish a long career largely based on his training and experience as a machine fitter, it is no longer enough these days. “We regularly attend training sessions in order to keep up with technological developments,” explains Michael Rendler, thus illustrating that nowadays, even the jobs in production are associated with lifelong learning.

Collaboration in the Rottweil plant has also changed accordingly over the decades. “In the past, objections were not tolerated,” recalls Karl Rendler. The master craftsmen in their long overalls surrounded themselves with an aura of infallibility. Their word was gospel and could not be questioned. “At that time, there was even still a rather military approach,” grins Herbert Rendler. Although authority was already being shaken up in the 1970s—even if it was only about the hairstyle. “It cost the supervisors quite some effort back then to let us attend a Chamber of Industry and Commerce event with long hair,” the 60-year-old still takes delight in this small victory from his youth.

Such showdowns are unthinkable for Michael Rendler today. “In the weekly team meeting, the supervisor expressly wants to know if we have noticed things that are not running perfectly. Each one of us is called upon to look for possible improvements and to discuss these in the team,” he emphasizes confidently. Commitment to the company is something all three Rendlers have in common. “Even in difficult times, you are respected as a human being here. That was not the case in the other plants where I have worked,” explains Karl, the other two nodding. “It’s true, the team spirit here is very strong. This is definitely one of our strengths here at MAHLE,” adds Michael. This special environment also motivates his father Herbert on a daily basis. “What drives me? I want to do everything I can to keep our plant competitive so as to secure our jobs.”

100,000 SQUARE METERS

1,000 EMPLOYEES

NEW MOBILITY WITH A WHISPER

ELECTRIC SCOOTERS WITH MAHLE DRIVES CONQUER BARCELONA

Barcelona
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SH29

"Frrrrrr…" is all you hear from the gleaming white scooter that hotel director Alexis Carbonell uses to drive to his workplace each day. If the wintry beach promenade in the Catalan seaside resort of Sitges were not so unusually empty, you wouldn't even hear it at all. "We want to set an example and use environmentally friendly transport," explains Carbonell. What's more, the scooter is very practical because you can hardly get through the narrow alleyways of Sitges with a car, and finding a parking place in winter, even with relatively few tourists, is a chore. Carbonell's whispering scooter is a pan-European mobility product. The manufacturer, GOVECS, is headquartered in Munich/Germany and produces these high-quality, robust two-wheelers in Wroclaw/Poland, where the capacity has been expanded to 20,000 units per year in the summer of 2015. The MAHLE electric motor, which in turn is produced in the Slovenian town of Šempeter pri Gorici, ensures the ride is quiet.

However, the electric scooter's greatest success to date is currently coming from Barcelona/Spain. It was here ten years ago that the German Timo Bütefisch came up with the brilliant idea that a scooter rental business is bound to succeed in this two-wheeler stronghold. His company Cooltra—the name stands for "cool transport"—is meanwhile successfully represented in twelve Spanish cities on the mainland, as well as in the Balearic and Canary Islands. However, Bütefisch had further ambitions: as a second step, he wanted to also offer environmentally friendly scooters alongside conventional ones. Since 2012, the Cooltra fleet on the Spanish streets has more than 500 electric scooters in addition to the classic two-wheelers with combustion engines. Their power classes correspond to the conventional 50 and 125 cubic centimeter scooters.

"As with electric vehicles, the crux here is still the battery," explains Jonathan Dörflinger, who is driving this particular issue of the two-wheeler at MAHLE. In terms of the overall costs, the energy storage systems are still a significant factor. Furthermore, the cruising range is limited and it takes a few hours until the scooter is fully charged again. "This is more of a psychological factor than a genuinely limiting one," comments Cooltra managing director Bütefisch from experience. This particularly applies to urban areas. Most of the stretches there are in fact no more than 20 kilometers, whereas a fully charged scooter can manage at least 80 kilometers. And the latest generation of batteries even allows for a cruising range of 120 kilometers.

Valerio Motta is among those who push the electric scooter to its limits every day. The 31-year-old runs a pizzeria in Vilanova i la Geltrú, about 50 kilometers south of Barcelona. The "Bella Italia" restaurant also offers home deliveries. "We make a good dozen deliveries every evening. This amounts to 80–90 kilometers in total," explains the restaurateur. It was a bit close at times but it has never yet run out of charge. Motta praises the reliability of the electric scooter: "It's perfect for us. You don't need any fuel, can get virtually anywhere, and you also can't hear us when we bring someone a pizza late at night. This saves hassle with the neighbors."

Despite its obvious advantages, the electric scooter has still not taken off in Europe. This is largely due to consumer expectations. While electric scooters in Asia are now perceived as a perfectly normal introduction to mobility, in the developed markets the two-wheelers still need to assert themselves against the established competition with combustion engines. The millions of susceptible cheap models flooding the Chinese market don't stand a chance when it comes to the discerning European customers. "Consumers expect high-quality vehicles that are just as good as the competition with combustion

"Urbanization is a global megatrend, which is generating many new mobility concepts. So it is only a matter of time before the demand for electric scooters and related vehicles will rise considerably."

Jonathan Dörflinger, *business development and product management in the Mechatronics division at MAHLE*

“I feel a little bit like a pioneer.”

Ignacio Ferrer, *GOVECS customer*

engines,” explains Thomas Grübel, who founded the Munich-based scooter manufacturer, GOVECS, together with Nicholas Holdcraft in 2009. They have therefore also opted for a drive solution from MAHLE. “The maintenance-free unit is extremely reliable and perfectly fits our premium philosophy,” comments Grübel.

“We are well able to meet the expectations of GOVECS because we are building on our extensive experience with electric drives for work machines such as forklifts, which also need to achieve high performance at low voltage,” explains MAHLE project manager Dörflinger. From the perspective of a large industrial group, the market for electric scooters is currently nothing more than a niche. “But we must not forget that urbanization is a global megatrend, which is generating many new mobility concepts. So it is only a matter of time before the demand for electric scooters and related vehicles will rise considerably,” says Dörflinger.

Meanwhile, they are already working on the next powertrain generations, confirms Iztok Spacapan, head of development at MAHLE Letrika in Šempeter pri Gorici/Slovenia: “Motors with 10 to 14 kilowatts are now expected to succeed the current 3.3 to 6 kilowatt models.” However, this is merely an intermediate step. MAHLE Letrika has already started working on drives with an output of 20 to 25 kilowatts (34 HP). “These motors will then have an operating voltage of up to 350 volts instead of the customary 48 volts,” explains Spacapan. And the drives will be cooled with liquid and no longer with air. For the new generation of motors that are to come on the market by 2020, Spacapan is expecting a huge improvement in the battery performance: “Future lithium-sulfur batteries will have an energy density of 500 kilowatt hours per kilogram. That is twice as much as today’s batteries.” E-mobility is thus evolving rapidly.

In Barcelona today, the electric scooter can already easily keep pace. The motor responds quickly—as an electric vehicle, it reacts immediately with consistently high torque—, making it easy to snake past the congested traffic in the evening rush hour. Barcelona’s high volume of traffic and maze of narrow alleyways make scooters and motorcycles particularly popular here. And they are, of course, part of the Mediterranean lifestyle. The range of products available is correspondingly broad and the expectations toward two-wheelers high.

ECONOMIC ENGINE ON THE MEDITERRANEAN

Barcelona, the capital of Catalonia, is also Spain's most important port and a tourist destination. On average, almost eight million people visit the city every year. The urban agglomeration by the Mediterranean Sea—the second most densely populated region in Europe behind Paris—is home to almost five million people. A popular gathering place in the city, for residents and visitors alike, is La Rambla, a boulevard that stretches from the port to the city center. Branching off from the promenade, narrow alleyways of the old town, many only accessible on two-wheelers, reveal a colorful history going back more than 2,000 years.

Together with Madrid, Barcelona is Spain's economic engine. As the small streets of the city center are difficult to reach by car, many companies are based in the suburbs. The greater Barcelona is a major hub for business startups, particularly from the sectors of IT, biotechnology, and energy. However, the automotive industry is also represented with a large number of manufacturers and suppliers in the region. Seat—now part of the Volkswagen Group—has its main location in Martorell, 35 kilometers from Barcelona.

Following years of economic crisis, the industry in Spain recovered significantly in 2015. With an annual production of 2.7 million vehicles, the country is the second largest manufacturer in Europe and the eighth largest worldwide. This figure is expected to be exceeded by a further 200,000 vehicles in 2016. This positive trend is also reflected in the creation of new jobs in this area. At 3.5 percent, employment in the automotive sector is growing stronger than in the rest of the industry, which has an average growth rate of 2 percent.

MAHLE has a strong presence in the area surrounding Barcelona, with locations in Vilanova i la Geltrú and Montblanc. In Spain as a whole, MAHLE is represented with all business units at seven locations with a total of 1,300 employees.

manager Damián Martin. As in Spain, they initially want to rent the scooters to companies in France and Italy on a monthly or yearly basis. For in Martin's experience, these customers tend to focus on the overall costs and quickly realize that the operating costs are considerably lower than two-wheelers with combustion engines.

Cooltra CEO Bütefisch has been pushing ahead with yet another project for some months. From March 2016, a smartphone app not only makes it possible to locate the nearest available scooter, but also to book it online and use it all over Barcelona. This free-floating model is the first of its kind for scooters in Europe and, with 500 scooters, also the largest worldwide. "This is perfect when you need to get a few blocks down the road quickly," says Bütefisch, CEO of Cooltra. "But it is also an interesting alternative for tourists who want to explore the city by themselves. This is modern mobility in urban areas." He has already prepared the expansion plans for the rental model of this environmentally friendly electric scooter for other European cities. The scooters equipped with MAHLE electric drives are thus well on the way to whispering their way out of the niche.

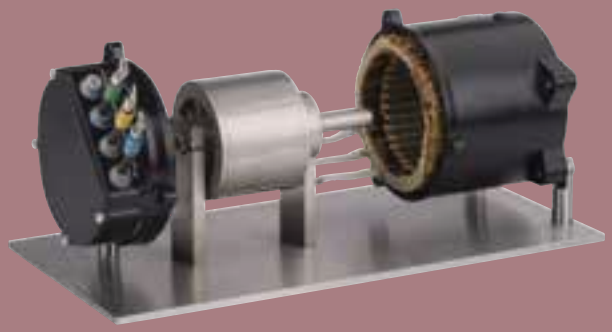
"I feel a little b

Ignacio Ferrer, *GOVE*

engines," explains Thomas Grübel, who founded the Munich-based scooter manufacturer, GOVECS, together with Nicholas Holdcraft in 2009. They have therefore also opted for a drive solution from MAHLE. "The maintenance-free unit is extremely reliable and perfectly fits our premium philosophy," comments Grübel.

"We are well able to meet the expectations of GOVECS because we are building on our extensive experience with electric drives for work machines such as forklifts, which also need to achieve high performance at low voltage," explains MAHLE project manager Dörflinger. From the perspective of a large industrial group, the market for electric scooters is currently nothing more than a niche. "But we must not forget that urbanization is a global megatrend, which is generating many new mobility concepts. So it is only a matter of time before the demand for electric scooters and related vehicles will rise considerably," says Dörflinger.

Meanwhile, they are already working on the next powertrain generations, confirms Iztok Spacapan, head of development at MAHLE Letrika in Šempeter pri Gorici/Slovenia: "Motors with 10 to 14 kilowatts are now expected to succeed the current 3.3 to 6 kilowatt



Not an everyday sight: the inner workings of the MAHLE electric motor

MAINTENANCE-FREE ENDURANCE RUNNERS

At first glance, the MAHLE e-motor fitted in the GOVECS scooter does not reveal many of its qualities. There is not much more to see than a big tin box. For good reason: the sturdy outer cover protects the motor against moisture, dust, and stone chips. And quick access to the interior is not a must, as the unit, weighing a mere six kilograms, does not have any brushes and is therefore maintenance-free.

The e-motor is driven by specially developed electronics. As a result, the power output can be unleashed much more precisely than with the simple, more susceptible products, which primarily come onto the market in Asia. Moreover, with an efficiency of over 90 percent, the unit converts a particularly large portion of stored energy into movement.

The MAHLE e-motor, which has a minimum service life of 20,000 operating hours, is a true endurance runner and exceeds the entire service life of a conventional scooter. MAHLE offers this e-drive in the power classes ranging between 1 and 6 kW. This corresponds to combustion engines with a power output between 50 and 125 cubic centimeters, or 1.3 to 6.8 HP.

The motor was developed by the MAHLE subsidiary MAHLE Letrika in Šempeter pri Gorici/Slovenia. They have extensive experience in electric motors, starter motors, and alternators, as well as electric drive systems for passenger cars and commercial vehicles, agricultural and construction machinery, as well as various industrial applications. Together with the Japanese colleagues from Kokusan Denki, the majority of which was acquired by MAHLE in 2015, MAHLE Letrika forms the core of the new Mechatronics division at MAHLE, which is to be expanded in the years ahead to become an independent business division with sales of more than half a billion euros.

Timo Bütefisch,
CEO of COOLTRA

Ignacio Ferrer is a typical example of this discerning clientele. Attired in suit and tie, the senior development engineer uses his electric scooter for the daily commute to work. He could have naturally bought a conventional scooter. "But I work in the automotive industry and am fascinated by this innovative two-wheeler concept." At first, he rented a scooter from Cooltra. In the meantime, he drives through Vilanova with his own two-wheeler. "I feel a little bit like a pioneer," says the manager and smiles proudly.

Hotel director Alexis Carbonell also felt like a pioneer to start with. The scooter has since become somewhat of a trademark signature for the San Sebastian hotel. "Not only can we emphasize our ecological orientation with it, but we are also listed in the relevant guidebooks," he proudly reports. The guests are showing such great interest in the whispering scooter that Carbonell now wants to buy a fleet for his hotel. "We will then expand our program to include the use of electric scooters."

> *"The maintenance-free unit is extremely reliable and perfectly fits our premium philosophy."*
> **Thomas Grübel,** *founder of GOVECS*

Cooltra in Barcelona is also on course for expansion. "We have already established branches in Milan, Rome, and Paris," reports sales manager Damián Martin. As in Spain, they initially want to rent the scooters to companies in France and Italy on a monthly or yearly basis. For in Martin's experience, these customers tend to focus on the overall costs and quickly realize that the operating costs are considerably lower than two-wheelers with combustion engines.

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BUILDING BRIDGES IN THE MIDDLE KINGDOM

KUN HU AND LI MAO: PAVING THE PATH OF GROWTH FOR MAHLE IN CHINA

Shanghai

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"We are looking for long-term relationships and not a quick profit."

Kun Hu, *General Manager Sales, R&D at MAHLE in China*

Tempo, tempo, tempo: everybody honks, shoves, and pushes their way forward. Each free gap is an opportunity to get ahead of the rest: traffic in China is not for the faint-hearted. The jostle here in Shanghai embodies the forward thrust of an entire country. The Chinese want to make global headway. At all costs. And as quickly as possible. "If you want to do business here, you need to adapt to this world," explains Kun Hu and smiles serenely. As the Head of Development and Sales for MAHLE in China, she knows only too well that the etiquettes of doing business are different outside her homeland. Yet China is different in many other respects. That's why it needs bridge builders like Kun Hu and her colleague Li Mao, who manages MAHLE's operational filter business in China. Both have perfected the art of doing business in China. And at the same time, they are particularly suited to mediating between the cultures.

For the past eight years, General Manager Sales, R&D Hu, and General Manager MAHLE Filtration Systems and Engine Peripherals China Mao have been paving the way for MAHLE in the world's most dynamic market. The two previously worked in separate departments at an American supplier group for a longer period of time. They have therefore gained decades of experience with Western companies, although major differences do also exist among them: "MAHLE is not listed on the stock exchange. This allows for long-term goals," explains Mao. It is obvious that MAHLE has come to China to stay. And the customers are approached accordingly. "We are looking for long-term relationships and not a quick profit," emphasizes his colleague Hu.

On the one hand, MAHLE's customers in China come from the who's who of the global automotive industry. This means that they expect the same specifications and standards as in Germany, the USA, or Japan, which requires identical production conditions and above all, employees with the same level of qualifications. The Chinese automobile manufacturers and suppliers, however, are also rapidly gaining ground. "They are accustomed to working without long schedules and in-depth processes," explains Kun Hu. If a product doesn't sell, fails to meet market expectations, which may change, the business partner is expected to respond to this change of heart—both quickly and flexibly. Any difficulties that may arise also need to be solved instantly. "The customers even call me late in the evening if they have problems," says Hu. This is simply part and parcel of the special bond between good business partners. A relationship of trust has been built up over the years and in return knows no rigid office hours.

"As a globally active company, it is accepted to a certain degree that we can't just overturn our production plans overnight," stresses Li Mao. But the pressure is enormous and continues to grow. The Chinese competitors have caught up and can now offer almost comparable products. They are not only agile and flexible, but also have logistical advantages thanks to the direct proximity to their entire organizations. "'Can you also do that so quickly?' is something we are hearing more and more often," stresses Mao. In order to maintain MAHLE's leading position, increased emphasis is being placed

"If you want to do business here, you need to adapt to this world."

Kun Hu

on in-house innovations in Shanghai. These include individual, tailor-made products which are developed and tested by the internal development department.

Mao, however, has yet another ace up his sleeve: "Most of our tools—including those used to produce the plastic housing for vehicle filters—are built by us. And this won't change in the near future. Thus, no one but us knows how these competitive products are actually produced," says Mao, strolling through the tool shop, as he illustrates how MAHLE can preserve its crucial leading edge. The hall, with its heavy die-cast parts and state-of-the-art CNC machines, is actually somewhat reminiscent of production in a mechanical engineering company.

The filtration specialist, however, sees a decisive advantage in the adaptability of the group here in Shanghai. "MAHLE has already become somewhat Chinese," Mao notes with satisfaction, and a proud smile flits across his face. It is not easy for the engineer to mediate between the equally discerning and agile Chinese customers and the headquarters in distant Stuttgart, which are geared toward clear processes. Yet he and his colleague Hu—as many others at MAHLE in China—build bridges on a daily basis. And they do so successfully, since this is also a way of learning from each other: "I believe that MAHLE can benefit from the experience in China for its worldwide business. Because the need for greater flexibility and a higher tempo will also spring up in other markets. It's just a question of time," believes Mao.

Nevertheless, if you want to deliver high quality, you also need to have the appropriately trained people. This holds true throughout the world. In China it is admittedly not so easy to retain employees in the company, because "tempo, tempo" and the search for the next good opportunity are maxims that also apply to professional life. Since the country's economy continues to grow quickly, new

"The pent-up demand in our country is as strong as ever. And the growth potential continues to be correspondingly huge."

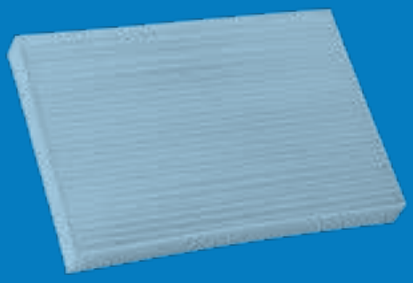
Li Mao, *General Manager MAHLE Filtration Systems and Engine Peripherals China*

jobs are being created on a daily basis, making competition for the best talents correspondingly tough. The wage costs in Shanghai are thus growing rapidly too. As a result, companies have to pay their employees around eight percent more each year.

Although the dynamics in China have recently slowed down somewhat, Kun Hu and Li Mao see no cause for concern. Growth rates of more than six percent are still enormous when compared with the rest of the world. "The pent-up demand in our country is as strong as ever. And the growth potential continues to be correspondingly huge," they both emphasize. The MAHLE development location in Shanghai is also reckoning with additional manpower requirements. Over the next few years, the number of employees here alone should increase by 50 percent to 600 developers.

As with customer relationships, the relationship between boss and employee also plays a very special role in China. Employees honor a company that takes care of them. Ten company buses are therefore on the road each day to fetch the employees from the various corners of Shanghai and bring them to MAHLE, which lies a little distance away in the district of Fengxian. Kun Hu—a bridge builder in all situations—not only takes care of transport, career development, and training programs. She also keeps an eye on the private concerns of her colleagues. "We arrange regular meetings with colleagues from other operations in the surrounding area, for example, in order to give our young ones the chance to meet people and make new friends," she reveals. Always in the hope that the young people will settle down nearby and employees will thus continue working for MAHLE.

Along with all the "tempo, tempo," stability is also of value to the employees. "Our employees have learned to appreciate the long-term mindset of MAHLE and are increasingly making use of the internal career opportunities instead of switching to another company," Kun Hu notes with satisfaction. "Our fluctuation rate has declined markedly over the past years," confirms her colleague Li Mao. Meanwhile, MAHLE's position is better than in the neighboring companies. This team spirit is clearly evident at the big New Year celebration, which MAHLE traditionally organizes for the staff. The 400 MAHLE employees in Shanghai create the program themselves. Several groups perform rehearsed shows, sketches, and songs. Even Lilly Fan and Kris Huang joined in with great enthusiasm. The amateur dancers prepared a performance especially for the event, even though they have barely been two years at the company. "It's great that I could make my colleagues happy," beams young Lilly Fan upon hearing the applause. And before you know it she's gone: tempo, tempo, tempo…



GROWTH MARKET WITH GREAT POTENTIAL

MAHLE has been represented in China since 1999. In the meantime, the group employs more than 7,000 employees in this country at 22 locations in total. A new plant for the Thermal Management business unit started operations in Chengdu in 2015. And a new site for the same business unit was completed in Shiyan at the beginning of 2016. China is also the country with the most MAHLE employees in Asia. All four business units are represented here, and they generated overall sales of more than 1.1 billion euros in the past business year. The aftermarket sector developed particularly strongly in 2015. The China business is controlled from Shanghai, where the development location for this market is also located. The growing demand for mobility—particularly in the rural areas—is one of the drivers behind the MAHLE business. With 85 cars per 1,000 inhabitants, China ranks 90th in the world. Moreover, the country is promoting the introduction of state-of-the-art powertrain technology due to the further tightening of emissions legislation. The introduction of the more stringent emission standard China V—which is planned in several steps until 2018—will thus spur on a renewal of the vehicle fleet, above all in the commercial vehicle sector.

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SHANGHAI—THE DRIVING FORCE BEHIND CHINA

It is a megacity with impressively high figures: Greater Shanghai, which covers an area of 6,340.5 square kilometers, is home to 23 million residents. China's first metropolis stretches some 120 kilometers from north to south and 100 kilometers from east to west. As the most important industrial and financial center in China, it is among the fastest growing cities in the world. Each year, more than 32 million standard containers are handled in the port—a world record. Shanghai also houses the highest building in China, the 632-meter-high Shanghai Tower. And the city is the only place in the world where a magnetic levitation train—the Transrapid Shanghai—operates as public transport at speeds of up to 430 kilometers per hour.

The infrastructure, however, can hardly keep up with the fast-paced development. The commute is therefore an ongoing issue for residents. The road network of 7,000 kilometers is chronically congested. Those using it only manage to cover eleven kilometers per hour on average. Potential car buyers must first acquire a license plate. However, these are highly coveted since the traffic authorities only issue 7,000 new plates each month. Alternatively, you can fall back on the local public transport with its 800 bus lines, 14 metro lines, and 45,000 taxis. In view of these challenging traffic conditions, MAHLE provides employees with its ten company-run bus routes so that they can commute between home and their work location as comfortably as possible.

The first traces of a settlement on the east coast of China date back to around 4000 BC. Shanghai was first alluded to as a village in 960. It was merged with three other villages as early as 1264. At that time, the city had an important commercial port from which the region's impressive cotton crop was shipped to Beijing, the back country, and Japan.

“Our employees have learned to appreciate the long-term mindset of MAHLE and are increasingly making use of the career opportunities instead of switching to another company.”

Kun Hu

“WE” IS THE KEY TO SUCCESS

FORMATIVE TRAINING AT THE MEXICAN RAMOS ARIZPE LOCATION

Ramos Arizpe

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MAHLE

Reliability, cleanliness, and precision: at the Mexican Ramos Arizpe thermal management production location, these principles are encountered at every turn. This is not only because the location is constantly being swept and mopped. Large posters in the production halls urge employees to exercise due care. Of course, principles like “Order is a must—defects are not” also apply to all of the other MAHLE plants worldwide. But at the northern Mexico location, the many encouragements throughout the plant are far more than routine reminders for everyone to give their best each day. “These are important principles for us. We not only live them, but also apply them to our environment outside the plant,” explains Adriana Aguillón assertively. The group leader from radiator production is not the only one to see it this way. The sentence constantly comes up in conversation with employees at the MAHLE plant near Saltillo, the capital of the State of Coahuila. “This way of thinking forms the basis of our success,” says Marco Souza, head of radiator production at the location.

“Some even speak of a MAHLE virus that has infected us all,” jokes instructor Francisco Hernandez. He is one of those who infects new employees with the “5 S” principles: seiri, seiton, seiso, seiketsu, and shitsuke. Sounds Japanese? It is too: the five basic values essentially mean systematic order, sorting out, cleanliness at the workplace, standardized processes, and continuous improvement. “These goals run like a red thread through our program,” says Hernandez, explaining the guidelines from the Far East, which have also become a mantra in the middle of Mexico. The training itself, however, closely follows the German cooperative studies system—, which combines attendance at a vocational school with an apprenticeship in the company. Following theoretical lessons at the Instituto Tecnólogico in Saltillo, practical exercises are undertaken at the company’s own training workshop. The trainees come from the school or were already employed by other companies in the surrounding area. The age span is correspondingly wide.

In addition to internalizing the “5 Ss” and gaining a lot of new knowledge, the trainees can all produce something tangible. At the end of the training, each course participant has milled, filed, drilled, and assembled a model truck made from metal. “The people proudly take home this little trophy as a symbol of their achievement,” reports instructor Martín Lucio López, as the sound of many files processing the clamped metal pieces can be heard in the background. “We want every employee to understand the necessity of our values and live by them. Outside the company too,” emphasizes López. Just like Adriana Aguillón, who laughingly concedes: “Previously, punctuality and accuracy were not so important to me. This has changed radically.” In the meantime, she has completed several training courses at MAHLE and manages an entire production group. This has made her self-confident: “I have learned how to reason and assert myself,” she says with such a determined look, it becomes clear: here is a woman who knows what she wants and what she can do.

Working in a team is a principle that was unknown to many before joining MAHLE. “We” is the real key to success. Groups, such as Adriana Aguillón’s, discuss the workflow of the previous shift on a daily basis and analyze possible defects. Suggestions for

Reliability and precision are always part of the daily working life at Ramos Arizpe.

improvement also emerge in these discussions. The results from these meetings are sent directly to production management, which interacts with the group on a regular basis. Accordingly, it is expected that the information and suggestions are taken seriously. “This results in high expectations being placed on the managers,” admits production manager Souza. “But our people know only too well if something is not working properly, or if it can be further optimized.”

Alongside thermal management components, complete cooling systems for passenger cars and commercial vehicles are now also being produced in Ramos Arizpe. In the new section of the plant, which was opened in 2015, these complex systems are assembled, tested, and delivered to the customer’s conveyor belts ready for installation. EUR 53 million have been invested in “Ramos 2.” This was the group’s largest single investment in 2015, and it impressively proves just how important the Mexican location is to MAHLE. By the time of completion of the new section in 2016, more than 200 jobs will also have been created despite the numerous automated processes. Several new employees are currently learning their new job at “Ramos 2.” They are instantly recognizable by their bright red T-shirts with the text “Orgulliosamente en entrenamiento”—pride in learning.

Large posters in the production halls urge to exercise due care. At the northern Mexico location, the many encouragements throughout the plant are principles applied in everyday life.

At the original MAHLE plant in greater Saltillo, which belongs to the “Engine Systems and Components” business unit, practical mechatronics knowledge is being imparted at the same time in a room full of measuring instruments, sockets, and cables. Instructor Jorge Ramos has gathered a lot of information in order to build this training

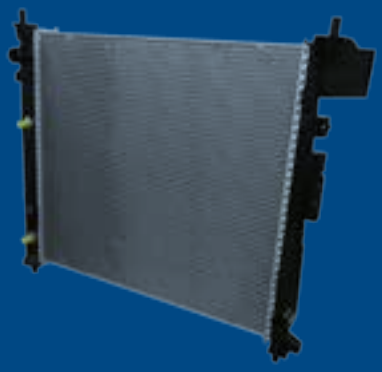
MAHLE junior engineer Hector Neftali systematically gets to the root of problems.

workshop. Four young people per age group now benefit from his commitment. “What I missed out on at the university is learning to grasp the correlations in practice,” stresses junior engineer Ectiberio Reyna. Today, he works together with Hector Neftali in automated piston production where robots manufacture a quality product from an aluminum blank in 15 different work steps. With Jorge Ramos, the two have learned from scratch how to systematically get to the root of malfunctions in order to find the right solutions quickly. Because downtimes in a production line mean time is lost, not to mention additional costs. They also approach some problems in a completely “Mexican” way, which is not a bad thing. “In our country, you learn early on how to achieve the best with less,” explains Neftali. “Our team on site is therefore normally able to find the defect faster than if we were to first take look in the theoretical manuals.”

“Many still believe that we Mexicans sit under sombreros and nap,” grins junior engineer Neftali. In fact, the Mexican MAHLE locations today have long been players in the world league of the automotive industry. Customers for pistons, connecting rods, cylinder liners, and thermal management products are located throughout North America and some products are even exported to Europe or Asia. The main market, however, is the NAFTA region. The border to the USA is just three hours away by truck. In North America, there are meanwhile no major manufacturers left that do not install parts from MAHLE.

The automotive industry is creating a spirit of optimism in the 750,000-inhabitant city of Saltillo. Manufacturers and suppliers from around the world have settled here. “There was still only desert here ten years ago,” Carlos Linares says, with an expansive movement of the arm to describe the premises on which piston production has emerged. “Charles,” as they all call him here, was there right from the start. The shift supervisor proudly points out that he is employee number 29. In the meantime, MAHLE employs around 3,000 men and women at its five plants in the area surrounding Saltillo; overall, the group employs more than 9,000 people in Mexico. “What impressed many from the outset was the open manner in which employees interact at MAHLE,” stresses Charles. That is not something you see with other employers. “We have become a very close-knit community here.” This is why hardly anyone thinks about leaving the company. To the contrary: “Many would really like to work here with us and are hoping a vacant position comes up. But none of us wants to leave,” Linares says, summing it up.

The “we” of the MAHLE community in northern Mexico reaches far beyond the plant gates. Throughout the year, personnel manager Antonio Ramirez and his team organize a variety of events for the families of employees. These include football tournaments, running events, and even cooking or sewing classes. The employees’ children are looked after during the school holidays and on the traditional “Mothers’ Day,” there is praise, commendation, and an



AUTOMOTIVE STRONGHOLD MEXICO

Mexico, along with the USA and Canada, is part of the North American economic area NAFTA, in which nearly half a billion people live. Owing to this agreement, exports to the north are duty-free. Consequently, over 80 percent of the vehicles produced here go to the United States or Canada.

In recent years, more and more companies—predominantly from the automotive industry—have taken up residence in Mexico. It is the country's most important industry and employs more than one million people. Since 2012 alone, the automotive industry has invested nearly EUR 12 billion in Mexico. The IHS agency, which closely monitors the vehicle market worldwide, is projecting that the country will replace Germany as the third largest vehicle exporter before the end of the decade. More than five million passenger cars and heavy commercial vehicles will then be produced every year in Mexico.

MAHLE is present in Mexico with all four business units since 1994, with locations in Ramos Arizpe, Aguascalientes, Querétaro, Naucalpan de Juárez, Lerma, Santa Catarina/Monterrey, Silao, Juárez, Celaya and Toluca. Overall, the group employs more than 9,000 people in 13 plants. After Germany, this makes Mexico the country with the most MAHLE employees. In 2015, two new production plants were inaugurated in Ramos Arizpe and Celaya. The group invested a total of nearly EUR 70 million here.

Production comprises systems and components for passenger cars and commercial vehicles. These include pistons, camshafts, radiators, condensers, and filters. For some manufacturers, the components are mounted into complete systems and directly delivered just in time for final assembly. Thanks to its central position, Mexico is an important production location to MAHLE for the North American market. Many products are also made here and shipped to manufacturers located in Asia.

The "we" of the MAHLE community extends far beyond the plant gates, all the way into the employees' families.

extensive entertainment program for the families. The income disparities in Mexico are still very big. Those who have found a job at MAHLE appreciate the associated social advancement—and never forget that others have not been so lucky. That's why the employees themselves also get involved in various charitable events. Once a year, they organize a collection of clothes, toys, and anything else that is useful. The donations are then distributed to the residents of remote villages in the region, where there is often not even a power supply.

Together with the Mexican children's charity CRIT, the employees also focus on supporting people in need in the neighborhood. "We look closely at each individual case and make sure that the aid gets there," explains Antonio Ramirez. The MAHLE location thus financed the wheelchair for a 13-year-old boy with multiple disabilities, for example. Ramirez subsequently received a letter that touched him deeply: "I can neither see nor write, so I asked my mother to do it for me. May my smile be the honest token of my deepest gratitude."

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THE DETROIT OF MEXICO

Saltillo in northern Mexico is the capital of the State of Coahuila de Zaragoza. More than one million people live in the city and surrounding area. The greater area lies 1,600 meters above sea level and is a rather barren, dry landscape, which is not without its own charm. There is also a “Desert Museum” here, whose importance extends far beyond Mexico.

The city is located on the famous intercontinental “Panamericana” highway, only 300 kilometers from the U.S. border. Between 1824 and 1836, Saltillo was even the capital of Texas before the present-day U.S. state seceded. The proximity to the United States makes the region particularly interesting for the automotive industry. The first manufacturers and suppliers settled in the region as early as the 1970s. Today, Saltillo is known as the “Detroit of Mexico.” MAHLE is represented in Ramos Arizpe, a town in the South of the metropolitan area of Saltillo, with five plants and more than 3,000 employees. In the city, they proudly refer to an appraisal by the London business newspaper “The Financial Times,” which identified Saltillo as the most attractive region for investments in the whole of Latin America in 2013.

Saltillo is well-known for the “Sarape”—a blanket-like shawl which is a traditional part of the male Mexican attire but can also fulfill different functions. It was originally wrapped around the body; thanks to an opening in the middle, it can also be worn as a poncho; it is then called a “Jorongo.” The “Pan de Pulque” is a local sweet bread speciality, which is produced using fermented agave juice, a recipe that dates back to the Indios.

"We want every employee to understand the necessity of our values and live by them. And to apply them beyond the gates of the company."
Martín Lucio López, *instructor*

The "we" of the MAHLE community extends far beyond the plant gates, all the way into the employees' families.

extensive entertainment program for the families. The income disparities in Mexico are still very big. Those who have found a job at MAHLE appreciate the associated social advancement—and never forget that others have not been so lucky. That's why the employees themselves also get involved in various charitable events. Once a year, they organize a collection of clothes, toys, and anything else that is useful. The donations are then distributed to the residents of remote villages in the region, where there is often not even a power supply.

Together with the Mexican children's charity CRIT, the employees also focus on supporting people in need in the neighborhood. "We look closely at each individual case and make sure that the aid gets there," explains Antonio Ramirez. The MAHLE location thus financed the wheelchair for a 13-year-old boy with multiple disabilities, for example. Ramirez subsequently received a letter that touched him deeply: "I can neither see nor write, so I asked my mother to do it for me. May my smile be the honest token of my deepest gratitude."

ONLY MAHLE CAN CREATE THIS INNOVATION

NETWORKED TEAM PROVIDES FOR MORE BOOST AND DRIVING PLEASURE WITH iCAS

Stuttgart

Play video?
Instructions on page 2 or on
www.annualreport.mahle.com

“iCAS provides more driving pleasure and reduced fuel consumption!”

Dr. Marco Warth, *Corporate Research and Advanced Engineering*

The wide range of business segments and the depth of their expertise is one of MAHLE's strengths. Above all, the interaction of the individual areas is what makes the group special. It gives rise to innovations such as integrated charge air subcooling (iCAS). For the first time, this solution combines the previously largely independent systems of charge air cooling and air conditioning. The impressive result is more power and lower fuel consumption. iCAS is a joint product of MAHLE experts from thermal management and engine technology. Dr. Marco Warth, Dr. Andreas Eilemann, Jürgen Stehlig, and Dr. Markus Wawzyniak provide some insight into how this innovative solution was developed.

HOW LONG HAS MAHLE BEEN WORKING ON THE iCAS PROJECT NOW?

DR. ANDREAS EILEMANN: We have been playing with the concept of iCAS since 2005. During this time, the first patents were also submitted based on theoretical considerations. It wasn't until 2011, during the integration of Behr into the MAHLE Group, that our ideas turned out to be practicable. All of a sudden, entirely new possibilities opened up. We were now able to tap into the knowledge of experts in engine configuration and use various test facilities at MAHLE. Thanks to this cooperation, iCAS was able to achieve a crucial breakthrough.

DID YOU KNOW EACH OTHER BEFORE WORKING ON iCAS?

JÜRGEN STEHLIG: Yes, we already knew each other before the project. We had met and exchanged ideas in various working groups. This mostly involved predevelopment and concrete customer projects which we already worked on together.

WHAT WAS NEEDED TO BRING TOGETHER THE IDEAS FROM DIFFERENT AREAS OF THE COMPANY TOGETHER?

DR. MARCO WARTH: The key to success was that our employees networked with each other across departments and divisions. Every division thereby benefited from the expertise of the others.

The result was an innovative technology that can be experienced directly in the vehicle and incorporates everything from thermal management to air guidance to the engine. And that is what MAHLE is all about!

CAN YOU BRIEFLY EXPLAIN WHAT MAKES iCAS SPECIAL?

DR. MARCO WARTH: iCAS provides more driving pleasure and reduced fuel consumption! (Laughs.)

Seriously, with iCAS, engine charge air cooling is coupled to the air conditioning system—an approach that wasn't yet available. This cools the air that is fed into the engine via the air intake module. Normally, the compressed air that enters the engine is warmer than the environment. Thanks to iCAS, we are now able to feed it into the engine at a much lower temperature. This yields greater power and less consumption.

HOW WILL MOTORISTS BENEFIT FROM iCAS?

DR. ANDREAS EILEMANN: The fact that the charge air fed to the engine is 10–20°C cooler than the ambient temperature means greater torque at low engine speeds. The driver feels the boost, familiar from turbochargers, sooner. This means iCAS is especially noticeable in vehicles with smaller engines, and it can be experienced in the truest sense of the word as the infamous "turbo lag" is completely or partially eliminated.

JÜRGEN STEHLIG: The bottom line is that driving is a lot more fun with iCAS because the system provides better acceleration. From 30 to 50 kilometers per hour, for example, it is up to one second faster than a comparable conventional engine.

WHAT IS THE MARKET POTENTIAL FOR iCAS?

DR. ANDREAS EILEMANN: Especially in engines with a smaller air flow, iCAS provides a noticeable effect. We are therefore anticipating that mainly vehicles with a rather small displacement will be equipped with this solution.

DR. MARCO WARTH: I would like to add that iCAS has been developed especially for gasoline engines. They benefit from cooler charge air in particular. We are convinced that this system can also help provide additional diversification within a model range. For example, manufacturers can offer a sporty version with iCAS that means greater driving pleasure with the same low fuel consumption.

"At first, we had to address two complex individual circuits: the charge air cooling and air conditioning system. Combining the two was of course a tremendous challenge."

Dr. Markus Wawzyniak, *advanced engineering for air conditioning systems*

WHAT WERE THE MAIN CHALLENGES DURING DEVELOPMENT?

JÜRGEN STEHLIG: The various materials for individual components presented the greatest challenge. For example, the intake module is made of plastic, while many other components are made of aluminum. The materials behave differently, depending on the temperature and loads.

DR. MARKUS WAWZYNIAK: At first, we had to address two complex individual circuits: the charge air cooling and air conditioning system. Combining the two was of course a tremendous challenge.

But unlike our competitors, MAHLE has mastered this complexity of the whole system. The unique combination of thermal management, air conditioning, engine cooling, and general engine expertise in this form can only be found with us.

HOW IS THE EXPERTISE FROM SUCH DIFFERENT AREAS INTEGRATED IN ONE PRODUCT?

JÜRGEN STEHLIG: The key was definitely our communication with each other. Only by networking with each other for regular exchanges can we bring together the expertise that is available in each individual area and for each individual component into a complex system such as iCAS.

DR. ANDREAS EILEMANN: The art of management—especially when integrating new parts of the company—is to motivate employees to look beyond their own areas, to be curious and open to what is being done in other parts of the group. Only then do projects like iCAS become possible.

DR. MARKUS WAWZYNIAK: The close proximity of the various departments involved also helped in the case of iCAS. In the future, it will be more and more important to promote this kind of networking on a global scale, especially because MAHLE contains—not least in the new parts of the company—great untapped potential.

WHAT IS MAHLE WORKING ON FOR THE FUTURE?

DR. ANDREAS EILEMANN: iCAS is proof that MAHLE has great possibilities and opportunities. We want to tap all of these by looking beyond our own horizon, past divisional boundaries, and promoting internal networking. This is surely not limited to those of us in development.

DR. MARCO WARTH: I would say: the best is yet to come at MAHLE.

OKAY, THANK YOU VERY MUCH.
WE WISH YOU CONTINUED SUCCESS!

WORLDWIDE DEVELOPMENT NETWORK

Since its founding in 1920, MAHLE has focused on research and development work along the complete powertrain for current and future mobility applications. Already then, in an engine test workshop in Stuttgart, engineers developed numerous product innovations, paving the way toward modern combustion engines. Today at MAHLE, 6,000 engineers and technicians around the world are working on the ongoing development of the combustion engine and its auxiliary components, as well as alternative drive systems such as electric motors and fuel cells. These specialists are also working on issues relating to integrated thermal management within the vehicle and researching solutions for improving the sustainability of systems and components.

Operational research and development work is currently driven forward at 15 major development locations around the world as well as numerous regional competence centers. They are located directly in the globally strategic markets—in Germany, Great Britain, the USA, Brazil, China, India, and Japan. Their main tasks relate to core topics such as fuel efficiency, clean air for emissions and in the cabin, and durability. Solutions are also found for local customers that are tailored to the specific requirements of the market. Exchange takes place regularly between the MAHLE development locations. New research results and findings are discussed jointly and efficient technology transfer is ensured for internal projects.

MAHLE also cooperates with numerous external research associations, societies, and universities around the world. The transfer of knowledge between industry and science, as well as research activities that extend beyond the borders of the group help to unlock additional potential for developing more efficient vehicle technologies. MAHLE concentrates on the optimization of not only passenger cars but also heavy-duty commercial vehicles and large engines.

EAM

JÜRGEN STEHLIG

Trained as a mechanical engineer, he has been with MAHLE for over 30 years. His path took him to France for eight years before he returned to the headquarters in Stuttgart, where he is now responsible for the development of air intake modules and cylinder head covers.

WHAT DRIVES ME EVERY DAY:

"My goal is to make the combustion engine more and more efficient and powerful. This makes me happy to work every day—and I am proud of how we at MAHLE can make a contribution."

DR. MARKUS WAWZYNIAK

Dr. Markus Wawzyniak started at Behr in 1999. He worked for eight years in the USA, among other countries, where he was mostly involved in air conditioning. Since 2010, he has been responsible for advanced engineering of air conditioning systems in the Thermal Management business unit.

WHAT DRIVES ME EVERY DAY:

"I am fascinated by thermal management. There isn't a week that goes by in which this activity doesn't hold some new surprise for us. I am excited to move this field forward with my colleagues and employees at MAHLE."

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INNOVATION iCAS: COLDER AIR FOR GREATER CHARGE AIR PRESSURE

The integrated charge air subcooling system (iCAS) from MAHLE is the result of networking various previously independent systems. It improves overall vehicle efficiency and dynamics. With the iCAS system, MAHLE has incorporated the air conditioning circuit into the charge air cooling system for the first time. The colder the air is, the easier it is for the engine to produce torque. Until now, the lowest possible charge air temperature was determined by the ambient temperature.

With iCAS, MAHLE has now broken through this barrier. First, a conventional charge air cooler precools the air. The air then flows through the iCAS heat exchanger that is integrated in the air intake module and is cooled by a dedicated circuit coupled to the vehicle’s air conditioning circuit. This double cooling process lowers the charge air’s temperature from around 120°C to around 10°C at an ambient temperature of 25°C. The effect is clearly noticeable. The increased density of the colder charge air improves combustion in the gasoline engine with higher torque in the low speed range. For a small three-cylinder unit, the difference can amount to up to 19 percent over a conventional system.

Important to know about iCAS: the improvement in vehicle dynamics does not come at the expense of a comfortable interior climate, and it does not entail increased fuel consumption. Thanks to a refined control system, thermal comfort remains 100 percent constant. After cooling the passenger compartment, iCAS makes use of the capacity of the air conditioning system that is available anyway but unused. The system can also be recuperatively recharged during braking phases. iCAS thus does not require any additional effort that would drive up fuel consumption.

THE TEAM

DR. MARCO WARTH

Dr. Marco Warth has been with the company for almost ten years and is currently in charge of advanced engineering within MAHLE's corporate research and advanced engineering. He previously worked in England for four years, where he was responsible for engineering at MAHLE Powertrain. During this time, he was also particularly involved in the iCAS project.

WHAT DRIVES ME EVERY DAY:

"For me, the car as a product is my biggest driver. My goal is to implement ideas at MAHLE that ultimately can be felt and experienced as a better car. That is what I work on every day with my colleagues."

JÜRGEN STEHLIG

Trained as a mechanical engineer, he has been with MAHLE for over 30 years. His path took him to France for eight years before he returned to the headquarters in Stuttgart, where he is now responsible for the development of air intake modules and cylinder head covers.

WHAT DRIVES ME EVERY DAY:

"My goal is to make the combustion engine more and more efficient and powerful. This makes me happy to work every day—and I am proud of how we at MAHLE can make a contribution."

DR. ANDREAS EILEMANN

A physicist, he started at Behr over 20 years ago and was first involved in the field of air conditioning and heat exchange engineering. Eilemann was also responsible for advanced engineering in engine cooling for six years. During this time, he worked intensively on the iCAS project. He is now managing the integration activities at MAHLE for the newly acquired thermal management division of Delphi.

WHAT DRIVES ME EVERY DAY:

"The company has given me opportunity after opportunity to take on new tasks over the last twenty years. The ability to develop and try out something new with employees and colleagues is what motivates me. They are my daily impetus."

DR. MARKUS WAWZYNIAK

Dr. Markus Wawzyniak started at Behr in 1999. He worked for eight years in the USA, among other countries, where he was mostly involved in air conditioning. Since 2010, he has been responsible for advanced engineering of air conditioning systems in the Thermal Management business unit.

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FOCUS ON SOCIETY AND ENVIRONMENT

At MAHLE, social commitment and sustainable business activities have always been key principles of the group. As an international company, MAHLE also feels socially responsible. The group is thus working in all areas to consistently lower negative impact on people and the environment with its innovations, resource-saving technologies, and modern manufacturing processes. What's more, we see ourselves as an active member of the community in which we operate and therefore assume social responsibility. For years, the MAHLE Group and its employees have been supporting numerous projects and initiatives to promote social interaction, education, and the fight against poverty and disease around the world—often in collaboration with the MAHLE Foundation.

ENVIRONMENTAL MANAGEMENT

REDUCING EMISSIONS, CONSERVING NATURAL RESOURCES

As we understand it, social responsibility already manifests itself in our own ranks at all locations, in the various processes, and in the individual products. Through the application of globally applicable standards such as ISO 50001, ISO 14001, the European EMAS standard, and OHSAS 18001, our environmental and occupational safety performance is assessed and continuously improved by systematically reviewing all relevant aspects. These specifications are integrated into our business processes, where they are further developed and refined. Compiling all relevant data every year enables us to compare installations, locations, and business units. In an effort to increase the sustainability of all activities, corporate objectives are annually devolved to the location level for implementation.

Each employee is called upon to do his part in reducing emissions and conserving resources. One such good example is the initiative of the Brazilian MAHLE locations Mogi Guaçu, São Bernardo do Campo, and Itajubá carried out in the 2015 business year to reduce water consumption. The regions around São Paulo and Minas Gerais have been suffering from insufficient drinking water supply for years. This initiative, which was fast-tracked by MAHLE, allowed for a sustainable reduction of the annual volume of wastewater by 13.5 million liters and of the water consumption of the three locations by 44.2 million liters per year. This corresponds to the daily requirements of 400,000 people. These locations, however, were not the only ones affected by savings measures—our MAHLE employees also installed water reducers in their homes and contributed to the installation of a total of 32,000 of such efficient water-saving fixtures in their neighborhoods.

All the other MAHLE locations around the world are also continuously working on saving natural resources while increasing the safety of their own employees. The year 2015, for example, thus saw the introduction of an innovative casting process in Zell im Wiesental/Germany, the development of a new procedure for the reprocessing of cooling lubricants in Tsuruoka/Japan, and the successful initiation of a rainwater utilization project in India.

CORPORATE SOCIAL RESPONSIBILITY

LOCAL COMMITMENT TO EDUCATION AND HEALTH—WORLDWIDE

The MAHLE Group is championing a multitude of social projects and initiatives in and around its locations. The MAHLE Reading Project, for instance, aims to equip school libraries and reading rooms in underdeveloped regions of China with at least 1,000 books.

In Durban/South Africa, MAHLE is involved in the educational project “Focus on iThemba” (iThemba is Zulu for “hope”), which promotes the schooling and further education of orphans; some of them are subsequently taken on by MAHLE as employees. In addition, 80 children received sponsored private lessons in mathematics and physics. Furthermore, MAHLE started the “Science2Go” initiative with a mobile laboratory in 2015. This special bus offers 15,000 pupils in the vicinity of Durban the possibility to experience physics and chemistry experiments. Due to the unsuitable equipment in most of the schools, this would otherwise not be possible.

Our North American locations have a long tradition of fund-raising and commitment to general health promotion. One example is the “Tour de Cure” cycling race organized by the American Diabetes Association, in which MAHLE employees regularly take part by means of active participation and donations, and thereby contribute to further advancing the development of improved treatment options for diabetes.

SPONSORING FARMERS IN BRAZIL

The MAHLE locations and employees in Brazil have also been involved in numerous social projects for years. MAHLE Formare

MAHLE Formare School is one of their most important commitments in Brazil.

The mobile laboratory from "Science2Go" in South Africa—powered by MAHLE.

School is one of their most important commitments. At six of our locations, MAHLE employees look after and teach around 130 young people in technical subjects each year. Since 2002, over 1,400 young people, most of them coming from socially disadvantaged families, have made successful transformations: 75 percent have obtained a job, many of them at MAHLE.

Our company has also helped to improve the living conditions of the "Vergel" agricultural community near the Mogi Guaçu location. Around 100 small farmers are operating a cooperative here. In a voluntary initiative, MAHLE employees took part in a study to identify opportunities for improvement in the social and economic surroundings of the community and then helped to implement them. In return, the MAHLE canteen is supplied with organically grown produce. For many years, MAHLE has also been supporting Instituto Cultural Ivoti, which is well-known beyond the borders of Brazil and awards scholarships to musicians between the ages of 13 and 18. Its "Camerata Ivoti" orchestra tours promote cultural exchanges between Brazil and the host countries.

NUMEROUS VOLUNTEER INITIATIVES AT EMPLOYEE LEVEL

Above and beyond the aforementioned examples, MAHLE employees at our worldwide locations display a high degree of social commitment with their voluntary participation in many other initiatives—from supporting international aid organizations and hospitals, to providing help to those in need and to children's and retirement homes, through to various educational opportunities designed to improve career prospects. The charitable projects, donations, and fund-raising campaigns are often instigated and carried out on their own initiative. Social commitment is an integral part of our MAHLE culture. The MAHLE Management Board would like to express its heartfelt thanks and high regard to all the dedicated helpers for their commitment.

EMPLOYEES

ENCOURAGE KNOWLEDGE—NETWORKING—INTEGRATE

The success of the MAHLE Group reflects the high level of expertise and special commitment of our employees. It is our declared goal to promote and develop the knowledge and skills of each and every employee. Furthermore, we aim to intensify the interdisciplinary network of employees to generate even more synergy in the future. This comprehensive exchange contributes to finding new ideas and innovative solutions. The development of the new iCAS cooling system, which was presented at the 2015 International Motor Show in Frankfurt am Main/Germany, impressively illustrates this point. During the 2015 business year, the acquisition of Delphi Thermal, Kokusan Denki, and Amovis also contributed to broadening knowledge within the MAHLE Group, and are thus creating new opportunities for the company. Owing to the above-mentioned acquisitions, the number of employees as at December 31, 2015, rose significantly to 75,635 in comparison with the previous year (plus 9,401 employees).

With an increase in personnel of over 14 percent during 2015, this means that more than every tenth employee was new at MAHLE. Around 7,944 employees from 13 Delphi Thermal production plants in Poland, Slovakia, Hungary, the United States, Mexico, Brazil, China, and India, as well as three major research and development centers in the United States and Luxemburg were officially welcomed into the group in July 2015. In addition, 673 employees from the mechatronics specialist, Kokusan Denki, joined us from four locations in Japan and Thailand. Furthermore, Berlin-based Amovis GmbH with its 25 employees has been part of the MAHLE Group since May 2015. The large number of new employees is both a challenge and an opportunity for our company. In addressing this

recent, huge challenge of integration, MAHLE was able to fall back on its positive experiences from past acquisitions. The integration process thus started quickly and has already made great progress. Integrating the acquisitions will also be one of the most prominent tasks for the company in 2016.

With the takeover of Delphi Thermal, the Thermal Management business unit has been decisively strengthened, not only by the new employees and their knowledge but also by the new product families. Together with the colleagues from MAHLE Letrika and the existing Actuators profit center, the employees from Kokusan Denki—which has been trading under the name MAHLE Electric Drives Japan Corporation since January 1, 2016—form the new Mechatronics division, which focuses on the development and production of electric drives and accessories.

The MAHLE Amovis team is pushing ahead with developing solutions for all aspects of exhaust gas recovery. The Organic Rankine Cycle (ORC) technology provides numerous opportunities to regain energy from powertrain waste heat while reducing emissions.

IN-HOUSE TRAINING AND FURTHER EDUCATION

MAHLE wins over customers with innovative, highly reliable, top-quality products. This can only be achieved with well-trained employees who receive ongoing further education. Training and further education is therefore a top priority at MAHLE. With our comprehensive catalog of training measures as well as national and international personnel development programs, we ensure that our employees obtain the necessary expertise and skills in order to meet the requirements of the future. Thus equipped, they play a crucial role in securing and developing the success of the company.

In this regard, apprenticeships and cooperative studies have always been of particular importance to MAHLE. In the German group companies, a total of 387 apprentices were trained in 19 occupational profiles, and 147 cooperative studies students were trained in eleven subjects of study in 2015. In Austria, 103 people took part in similar programs in eight apprenticeship profiles. In order for Polish production to meet the high demand for qualified technical personnel, a total of 84 apprentices embarked upon several years of training to become foundry or lathe operators in 2015. In Mexico, 60 specialists were trained in an 18-week internal training program that likewise focuses particularly on the MAHLE-specific requirements. Training in Brazil was significantly expanded in 2015, where 271 young people were trained in 18 occupational profiles in view of their subsequent takeover by MAHLE.

EXPERIENCE WORKING ABROAD AND MOBILITY

With the increasing globalization of the group, employee mobility is also growing in importance. The secondment of specialists and managerial staff supports the international transfer of expertise and opens up new prospects for employees and managers. This promotes the professional development of each individual, which in turn broadens his own horizons. Experience abroad is defined as an integral career building block for MAHLE executives. A globally-binding mobility policy governs the framework conditions for the worldwide secondment of employees and helps to make these both uniform and attractive. We take care of the interests of expatriate staff, support them during their secondment, and facilitate reintegration in their home country.

What's more, MAHLE even promotes foreign assignments during training and the first few years of work. For management trainees, residing outside of their home country is an integral part of the training program. Students of cooperative studies also have the opportunity to work at MAHLE locations around the globe as part of their practical training.

GLOBAL DEVELOPMENT OF PROFESSIONALS

The MAHLE Group aims to fill all managerial positions primarily from within the company. Various national and international development programs therefore specifically prepare our employees and executives to take on new or enhanced areas of responsibility within the company. Participants in the development programs are identified by means of regular potential assessments and development conferences. The company can thus recognize the strengths of the individual employees in a timely manner and systematically promote them. Leadership skills are specifically trained and developed. The various development programs at the different hierarchical levels not only strengthen personal and professional skills, they also serve to build and expand networks across countries and functions. We are consistently expanding our online learning program alongside the measures facilitating direct contact between participants and trainers. This allows us to reach our respective target group around the world and make learning more flexible in terms of time and place.

RECRUITMENT MEASURES

Attracting highly qualified and motivated junior employees is of utmost importance for an internationally active company such as MAHLE. We reach these employees of tomorrow by participating in career fairs, having an attractive Internet presence, and by cooperating with universities and institutions of higher education. MAHLE has also long been supporting the global engineering competition Formula Student, which our company sponsors in various countries and acts as one of the main sponsors in Germany. We support aspiring engineers with our development and manufacturing expertise as well as financially, and in this way come into close contact with precisely the target group whose knowledge and commitment we want to attract in order to secure the future of the group. In the 2015 business year, MAHLE sponsored 19 Formula Student teams in Europe as well as in North and South America. In Brazil, the contact to students and graduates is strengthened through special workshops conducted by our Tech Center in Jundiaí/Brazil, in cooperation with the universities UNICAMP in Campinas/São Paulo and USP UNIFEI in Itajubá. Intensive cooperation arrangements are in place with other selected key universities in Europe, USA, and Asia.

MAHLE experts give technical lectures; MAHLE awards scholarships to support young academics and MAHLE Performance Awards for special achievements. In North America, for instance, we work closely with the University of Michigan, Kettering University, and the Lawrence Technological University in order to offer graduates in engineering and information technologies attractive career prospects and secure their cooperation.

Our employees also get involved on a voluntary basis to ensure effective and successful recruitment. In the United States, for example, consultations and technical presentations are used to attract employees at forums and trade fairs, targeting various companies and associations such as the Society of Women Engineers (SWE), the Society of Hispanic Professional Engineers (SHPE), or the National Society of Black Engineers (NSBE), encouraging them to either start or continue their career at MAHLE.

We cooperate with schools to promote interest in MINT subjects (mathematics, informatics, natural sciences, technology) in the context of numerous initiatives and projects worldwide. In Germany and Austria, for example, we support the annual Girls' Day, which is specially designed to motivate girls to take up technical and scientific careers. We conduct regular workshops with secondary schools in Poland, and our school partnership in Rouffach/France gives young students the opportunity to learn about our industry. The MAHLE MINT Award was also staged for the first time in cooperation with a major student magazine and attractive prizes were awarded for outstanding final theses.

WORK-LIFE BALANCE AND HEALTH

Occupational health management and health promotion are an integral part of our corporate culture. Numerous worldwide projects and measures aim to improve the working environment and raise employee awareness about maintaining their own health. The activities and benefits we offer range from company sports teams and special fitness programs to free medical services as well as health classes and advice on social issues.

We attach particularly great significance to awareness, prevention, and personal responsibility. Health days at the MAHLE locations in numerous countries serve to familiarize employees with a healthy diet and lifestyle concepts. In Brazil, a prevention program is used to inform our employees and their families about drug abuse. In Romania and Poland, we offer our employees comprehensive health care, which covers both prevention and diagnosis.

Employee-friendly working conditions such as flexible working hours, part-time work, or working from home support MAHLE employees in reconciling their family and professional lives. MAHLE helps women in particular to return to work during and after parental leave through special part-time models, for example. For five years, the in-house day-care center with 40 places in Stuttgart/Germany has been making an important contribution to easing the pressure on families. To assist with childcare during the school holidays, MAHLE provides holiday programs for employees' children in Germany, Poland, and other countries.

THANKS TO ALL EMPLOYEES

The MAHLE Management Board would like to thank all employees for their exemplary commitment and high level of motivation. It is their ideas and dedication that form the basis of our success as a company. We would also like to extend our thanks to the employee representatives for constructive dialog and for their forward-thinking cooperation characterized by mutual respect.

At welcoming events on July 1—pictured here in Ostrów/Poland—our new colleagues, formerly from Delphi Thermal, were welcomed into the world of MAHLE.

International Development Program 2014/2015: familiarization with various plants and interaction with the management team are key components of the development program.

HALF A CENTURY OF FUNDING ACTIVITIES
MAHLE FOUNDATION

Early on, the company founders, Hermann and Dr. Ernst Mahle, associated corporate success with social responsibility. The MAHLE Foundation has been pursuing these guiding principles since 1964. In line with the guidelines set by its founders, the foundation supports a number of cultural and social initiatives worldwide. The focus is always on the guiding principle "Donate today—with an eye on tomorrow." The MAHLE Foundation holds 99.9 percent of the group's shares. This not only guarantees its independence, but also ensures that more than 95 percent of the profit generated can remain within the company. However, the shareholders' committee of the MAHLE Group (MABEG) principally exercises its voting rights because, as a charitable organization, the foundation cannot undertake any business activities.

The MAHLE Foundation receives an annual dividend from the group's net income for the year. "How much money we have available depends exclusively on the success of the group," explains its managing partner, Jürgen Schweiß-Ertl. During the 2015 year under report, more than 160 projects were sponsored in the fields of education and training, health care and nursing, agriculture and nutrition, arts and culture, as well as science and research. "At least two of the seven shareholders in total are always involved in the project decisions. All of the shareholders at the foundation Assembly decide on the large projects," explains Schweiß-Ertl and adds: "We basically always agree on funding for one year only and feel it is important that our applicants receive support from several foundations if possible."

2015 was a special year for the MAHLE Foundation, as it could look back on half a century of funding activities, which began in February 1965. Under the motto "Man—development—future. How do we want to live?," the charitable organization gave some insight into its work. A series of lectures, hands-on activities, and a varied stage program rounded off the celebrations in September 2015, to which all MAHLE employees were invited. Visitors gained detailed information about 30 selected funding projects from a total of 600 initiatives over the past 50 years.

FACILITATING INNOVATIVE MEDICAL APPROACHES

The Filderklinik near Stuttgart is the MAHLE Foundation's central funding project. The MAHLE Foundation is also a shareholder in this anthroposophical acute care hospital, whose specialist fields include perinatal medicine, integrative oncology, and internal medicine. The Filderklinik is also known nationwide for its pediatrics department and particularly enjoys an excellent reputation in infant and child psychosomatics as well as neuropediatrics. The hospital provides a holistic approach that not only includes psychotherapeutic care, but also methods such as music therapy or eurythmy therapy.


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1./2. *During the open-door events for its 50th anniversary, the MAHLE Foundation gave insights into its work through presentations and workshops.*
3. *Mellifera e. V. promotes natural and ecological beekeeping.*
4. *Pediatrician Dr. Monika Golembiewski's initiative "Shining Eyes" is working to improve nutrition and hygiene in West Bengal/India.*
5. *The Filderklinik near Stuttgart is the MAHLE Foundation's central funding project.*

The idea of establishing an anthroposophic clinic in the Stuttgart region dates back to the Mahle brothers themselves. They had already met Dr. Rudolf Steiner—the founder of anthroposophy—at a lecture in Stuttgart in 1919. Put simply, anthroposophy wants to demonstrate approaches for a new concept of mankind. "Our concept of mankind profoundly influences our social coexistence—be it in medicine, education, dealing with the world's resources, or our cultural interaction," says Jürgen Schweiß-Ertl as he outlines the philosophy. This is precisely where the foundation is putting its work in practice. The intention is to highlight the prospects for a humane world.

PROMOTING EDUCATION, TRAINING, AND AGRICULTURE

The MAHLE Foundation thus also supports anthroposophical medical training at the Witten-Herdecke University, among others. Its agricultural focus is mainly on seed research, e.g., the development of regionally adapted variants in order to reduce the use of pesticides. As far as training is concerned, the main focus is on the qualification of teacher trainees. An international master's program in the Waldorf educational science was thus established at the Freie Hochschule Stuttgart, which aims to bring Waldorf education into the world. "In Asia, Waldorf education is booming. In China, there are already hundreds of kindergartens and schools that need qualified personnel," points out Schweiß-Ertl.

MEDICAL AID FOR THE IMPOVERISHED IN INDIA

In India, the MAHLE Foundation is backing the "Shining Eyes" project. This project has set itself the goal of providing the poorest segments of the population with access to health care. For example, children from impoverished families who often suffer from respiratory or diarrheal diseases are treated at the children's hospital in Bolpur. Tuberculosis is also a constant threat to the region's partly malnourished inhabitants. In order to quickly diagnose and treat cases of life-threatening diseases, an X-ray station has been set up with the help of the MAHLE Foundation.

INSTITUTO MAHLE—A SUCCESS STORY

Inspired by the MAHLE Management, the MAHLE Foundation established the Brazilian foundation subsidiary, Instituto MAHLE, in 2007. The São Paulo-based establishment is mainly pushing ahead with projects to humanize medicine and establish anthroposophy in the state health system of the emerging country. The Casa Angela birthing clinic, which is located in a São Paulo slum and is sponsored by Instituto MAHLE, has even received state recognition as Brazil's sole birthing clinic outside a hospital.

REFERENCES

All automobile and engine manufacturers worldwide are customers of MAHLE. Here is an excerpt from our original equipment references.

A
AGCO
Alpina
Alstom
AMG
Ashok Leyland
Aston Martin
Atlas Copco
Audi
AutoAlliance Thailand
Avtodiesel
AvtoVAZ

B
BAIC
Bajaj
Beiben
Beijing Benz Auto
Beiqi Foton Car
Beiqi Foton Truck
Bentley
Bergen Engines
Bharat Heavy Electricals
BMW
Bombardier Rotax
Bosch
Brevini
Brilliance Auto
Bristol Compressor
Bucher Hydrauliks
Bugatti
BYD

C
Cadillac
Case New Holland
Caterpillar
Changan
Chery
Chrysler
Citroën
CLAAS
CNHTC
Concentric
Crown
Cummins

D
Dacia
DAF
Daihatsu
DEUTZ-FAHR
Dodge
Dongan
Dongfeng
Doosan
DPCA
DU Trucks
Ducati

E
Eicher Motors
Electro Motive
Electrostar
Embraco
Engel
Escorts Tractors

F
Fanuc
FAW Haima
FAW Trucks
FAW-VW
Fendt
Ferrari
FIAT
Fisker
Force Motors
Ford
Foton Lovol
FPT Industrial
Freightliner
Fuji
Fuso

G
Gardner Denver
GAZ Trucks
GE Jenbacher
GE Transportation
Geely
Generac
General Motors
Gnutti
Great Wall
Greaves Cotton
Guascor

H
Haima
Harley-Davidson
HATZ
Henan Diesel
Hindustan Motors
Hino
Honda
Hualing (CAMC)
Hyundai Kia

I
Infiniti
Ingersoll Rand
Irisbus
Iseki
Isotta Fraschini
Isuzu
Iveco

J
JAC
JAC-Navistar
Jaguar Land Rover
JCB
Jeep
Jiangling
Jiangling Motors
Jiangxi Isuzu
Jinan Diesel
Jiquiang
John Deere
JTEKT HPI

K
Kaiser Machining
KAMAZ
Kawasaki
Kenworth
Kipor
Komatsu

Krones
Kubota

L

Lamborghini
Lancia
Lexus
Liebherr
Linde
Liuji
L'Orange

M

Mack Trucks
Mahindra & Mahindra
MAN
Manitou
Maserati
Mazda
McLaren
Mercedes-Benz
Mercedes-Benz Trucks
Mercury
Mitsubishi
Mitsubishi Heavy Industries
MMZ
MTU
MWM International

N

Nacco
Nanjing Automobile Group
Naveco
Navistar
Neoplan
Nissan

O

OMMC
Opel

P

Paccar
Parker Hannifin
Perkins
Peterbilt
Peugeot
Piaggio
Pierer Industries
Polaris
Pontiac
Porsche
Proton

Q

Qingling Motor
Qoros

R

Regal Beloit
Renault
Renault Trucks
Renk
Rolls-Royce
Rolls-Royce Power Systems
Royal Enfield

S

SAIC
SAME
Samsung
Sandvik
Sapura Industrial
SBB
Scania
Schnell Motoren
SEAT
SEMT
SHAC
Shanghai Diesel (SDEC)
Siemens
Simpson
Škoda
Smart
SNCF
SsangYong Motor Company
STEYR MOTORS
STIHL
Subaru
Suzuki
SVW

T

Tafe Motors Tractors (TMTL)
Talgo
Tata
Temsa
Terberg Benschop
Terex
Tognum
Toyota
Trane
Triumph Motorcycles
TVS Motor Company

U

UD Trucks
Ural

V

Valtra
Vauxhall
Vestas
Vimec
VM Motori
Voith
Volkswagen
Volvo Car
Volvo Construction Equipment
Volvo Penta
Volvo Powertrain
Volvo Trucks

W

Wärtsilä
Waukesha Engines
Weichai Power
WP GROUP
Wuxi Diesel

Y

Yamaha
YaMZ
Yangzhou Diesel
Yanmar
YTO
Yulin Diesel
Yunnei

Z

Zeppelin
ZF
Zhengzhou Haima

GROUP MANAGEMENT REPORT

FUNDAMENTAL INFORMATION ABOUT THE MAHLE GROUP

BUSINESS ACTIVITIES AND CORPORATE STRUCTURE

The MAHLE Group is one of the 20 largest automotive suppliers worldwide. With its products for combustion engines and their peripherals as well as solutions for electric vehicles, the company addresses all crucial issues relating to the powertrain and vehicle air conditioning. MAHLE systems and components are installed in more than half of all vehicles produced worldwide. The group supports manufacturers during the development of new vehicle generations and assists in the continuous improvement of series production applications. Moreover, MAHLE components and systems have been successful in international motorsport for decades. The company's innovative products are also used off the road—be it in stationary applications, mobile machinery, rail transport, or marine applications.

MAHLE is organized into four business units—Engine Systems and Components, Filtration and Engine Peripherals, Thermal Management, and Aftermarket. A number of further business activities are also geared toward specific market and customer segments. At the beginning of 2016, the company's mechatronics expertise was concentrated in a new division. With 173 fully consolidated subsidiaries and regional companies, the MAHLE Group is represented in 34 countries.

The nonprofit MAHLE Foundation holds 99.9 percent of the company's shares. The voting rights are held by Verein zur Förderung und Beratung der MAHLE Gruppe e. V. (MABEG), which exercises the shareholder rights and holds 0.1 percent of the shares. This legal structure safeguards the MAHLE Group's corporate independence. It allows the company to plan for the long term and make appropriate investment decisions. The foundation-owned MAHLE Group has voluntarily adopted key elements of the German Corporate Governance Code insofar as they are suitable and appropriate with regard to the shareholder and governance structure of MAHLE. This, although the privately-owned company is under no legal obligation to do so.

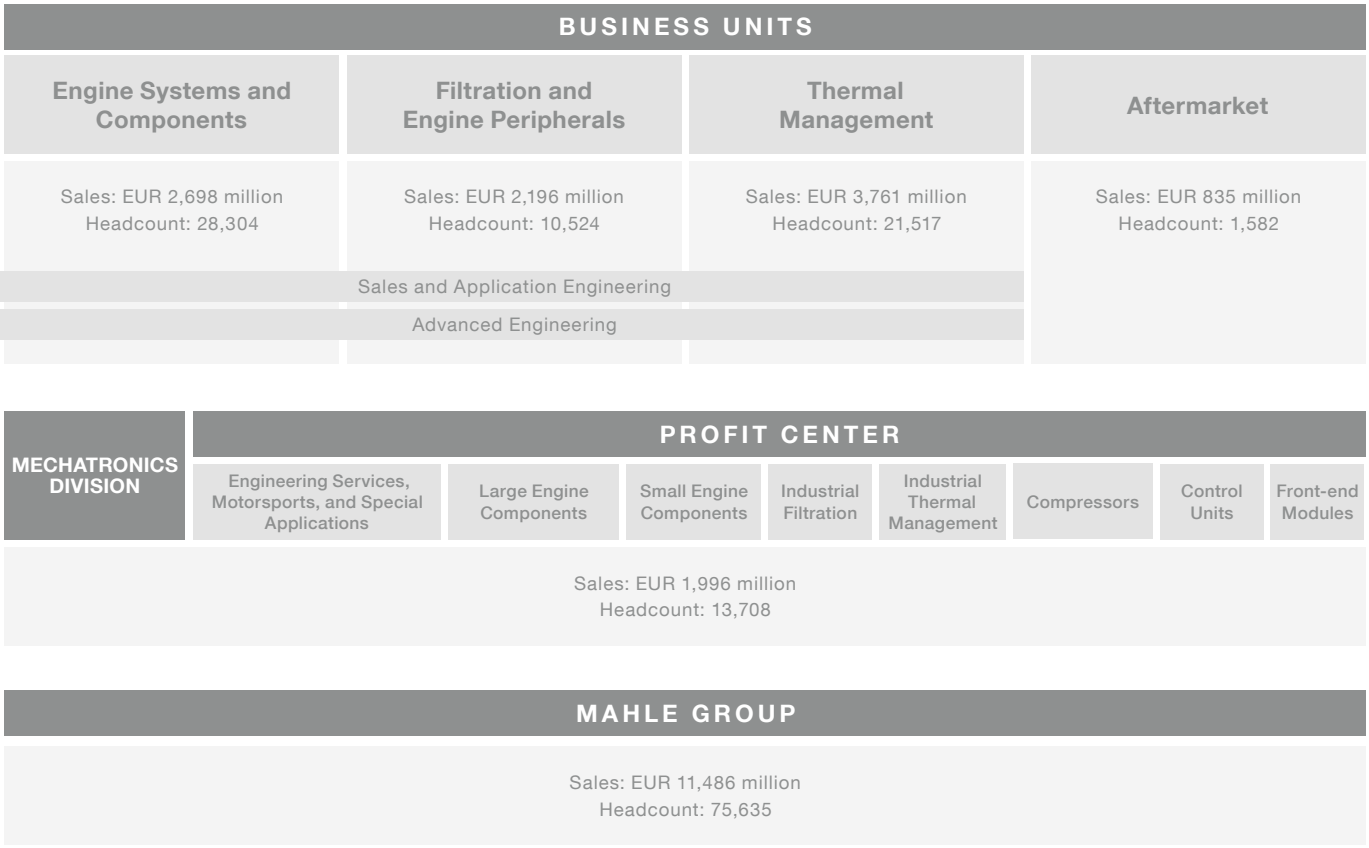
BUSINESS UNITS

ENGINE SYSTEMS AND COMPONENTS

The Engine Systems and Components business unit develops and manufactures the components that make up the heart of an engine. These include pistons, piston rings, connecting rods, cylinder liners, bearings, as well as valve train systems and components. Comprehensive systems competence, extensive production experience, and the constant search for improvements both on a large scale and in detail form the basis for technologically innovative systems solutions. This area has been one of the core competences of MAHLE since its inception. The group is the global market leader in this field and is continuously working to improve these basic engine components in order to increase performance and driving pleasure while reducing fuel consumption and emissions. MAHLE engine systems and components are used worldwide in passenger cars, heavy-duty commercial vehicles, large engines, and two-wheeled vehicles.

FILTRATION AND ENGINE PERIPHERALS

The products from the Filtration and Engine Peripherals business unit ensure that air, oil, and fuel are freed of contaminations that could damage the engine. Its products thus make a decisive contribution to long engine life. The business unit's product range not only includes filters but also pump systems and oil coolers for engine and transmission applications. MAHLE supports the customers during development and its products facilitate the building of modular systems with a correspondingly large number of different engine types. It can thus meet requests for various power classes or comply with different regional emissions legislations, for example. Thanks to highly integrated air management systems, driving dynamics can be increased while reducing consumption. Integrated swirl and tumble systems ensure clean and efficient combustion. By integrating charge air cooling in the air management system, higher torques and improved engine efficiency are now possible. MAHLE is one of the leading global suppliers of filter products for the automotive industry.



As at January 1, 2016

THERMAL MANAGEMENT

MAHLE has steadily expanded its thermal management activities over the past few years and is the world's second largest automotive supplier in this segment today. Comprehensive thermal management of the powertrain is of great importance for the durable operation of these units and the further reduction of emissions and consumption. To this end, MAHLE offers weight-saving integrated solutions in its portfolio. The business unit also develops and produces components and systems that further enhance the interior comfort of passengers. End customers around the world have a growing expectation toward optimal and easy-to-use air conditioning—even in smaller vehicles and irrespective of the powertrain technology, too. The thermal management of batteries is decisive in the further development of e-mobility. MAHLE is a technology pioneer in this field, whereby its solutions contribute to a constant temperature level as well as an even distribution of temperature between the battery cells. Only with such a system is it possible to guarantee consistent performance, not to mention the service life of these expensive energy storage systems.

AFTERMARKET

This business unit, which is specialized in spare parts and workshop equipment, relies on the expertise it has gained from original equipment. It supplies its trade, workshop, and engine repair partners around the world with products in original equipment quality—from engine parts and filters through to thermostats and turbochargers. MAHLE Aftermarket has a global supply network and supplies its customers quickly and reliably with high-quality spare parts. This is apparent to end customers due to the shortened downtimes in workshops. Providing comprehensive support to partners is a key success factor in this business unit due to the increasing complexity of vehicle technologies. The workshop equipment business, with its diagnostic and HVAC service operating line, comprehensive services, and customized training programs, rounds off the portfolio.

FURTHER BUSINESS ACTIVITIES

A number of smaller MAHLE business activities—so-called profit centers—are geared toward specific market and customer segments. This enables them to offer their customers flexible and application-specific support in the development of new products and supply them with specific applications and components. These include engineering services and motorsport applications, components for large and small engines, filtration and thermal management for the industry, air conditioning compressors, control units for air conditioning technology, as well as front-end modules for automotive manufacturers.

Due to the progressive electrification of vehicles, mechatronic components are becoming increasingly important in the automotive industry. That is why MAHLE concentrated its mechatronics expertise in a new division at the beginning of 2016. At the core of its activities lies the expertise for developing and manufacturing electric motors and electronic components, which have a high level of technical similarities across the different applications and thus offer important economies of scale for the automotive industry. Alongside the previous Actuators profit center, the Mechatronics division encompasses the activities of MAHLE Letrika and MAHLE Electric Drives Japan (formerly Kokusan Denki).

GROUP STRATEGY

As a technology leader, the MAHLE Group aims to provide innovative solutions for the entire powertrain and vehicle air conditioning. With decades of experience, the company stands for performance, precision, perfection, and a high degree of innovative strength. The development of the operating result, which is a key figure similar to EBIT, is an important management tool for group strategy. Consideration needs to be given to achieving profitability in all areas and processes. MAHLE thereby secures stable corporate development and generates sufficient funds for necessary investments.

Megatrends, such as population growth, urbanization, globalization, digital networking, or limiting emissions to promote climate protection form the framework of the group strategy. MAHLE is addressing these developments, and recognizes them as an opportunity for further growth.

The automotive industry today is still being shaped by the combustion engine. The demand for components thus continues to grow. Consequently, the production of vehicles with this powertrain technology will also increase in the coming years, since substitution by purely electric drives is more than offset by the persistent growth of the global automotive market. It can be assumed that the combustion engine for both passenger cars and commercial vehicles will remain by far the leading technology. While, from today's perspective, substitution products for the latter are not foreseen in the medium term, other drive technologies, such as hybrid or electric drives are likely to become more widespread in passenger vehicles of the future.

Derived from these market requirements, the group has elaborated a twofold strategy. Firstly, MAHLE wants to remain a technology leader in the future with its core products, while achieving success in the market with its favorable cost positioning. To this end, the group has consistently expanded its business units over the past few years and will continue to do so. MAHLE is thus strengthening its existing product portfolio and is actively contributing to the further optimization of the combustion engine and associated reduction in consumption and emissions.

Secondly, MAHLE is opening up new business segments and further developing its product portfolio in order to keep pace with the changing conditions. The company will also continue along this path in the years ahead. Business activities, which are dependent on the OE business with the passenger car combustion engine, are already accounting for less than 50 percent of group sales today. Innovative solutions and approaches are necessary for developing new powertrain technologies. For example, efficient thermal management is of particular significance to alternative drive systems, too. MAHLE has systematically expanded this business segment with the acquisition of Behr and Delphi Thermal, and, as a pioneer in this field, already provides numerous series solutions for the thermal conditioning of batteries in electric vehicles and plug-in hybrids. Mechatronic activities are also gaining increasing importance and are to be significantly intensified in the coming years. MAHLE will thus raise its production of electric motors—for emission-free two-wheeled vehicles, for example—and electric auxiliary components. The company sees this as an environmentally friendly answer to the growing demand for individual mobility in megacities.

REPORT ON ECONOMIC POSITION

ECONOMIC CONDITIONS

OVERALL ECONOMIC DEVELOPMENT

According to the January report by the International Monetary Fund (IMF), the global economy grew by 3.1 percent in 2015. Development thus remained slightly below the forecast made in January 2015 and the growth figure of the previous year. Overall, the IMF sees the persistently weak productivity growth as the primary structural cause of this trend. While most of the advanced economies were able to continue their recovery, the substantial decline in raw material prices, individual geopolitical crises, and a considerable withdrawal of capital exacerbated the situation in many emerging markets.

Following some economically difficult years, many countries in Europe were able to regain their positive economic development despite the ensuing uncertainty of the Greek crisis, which lasted until summer. Overall, the euro zone achieved a plus of 1.5 percent, up from 0.9 percent in the previous year. The trend in Russia and Ukraine remains negative due to the sharp fall in raw material prices and the ongoing political tensions. In contrast, development in the other eastern European countries was somewhat more dynamic than in the previous year.

With a plus of 2.5 percent, the economic output of the USA improved considerably, which was largely attributable to a robust labor market and the resulting boost in domestic consumption. Positive development was also experienced in Mexico, where the growth trend was maintained. Brazil—the largest Latin American economy—slid into a severe recession with a minus of 3.8 percent. The country suffered from a political crisis and falling raw material prices, which in turn led to a decline in consumer demand and absence of state and private sector investments. The crisis in Brazil also impacted the neighboring countries, which were already suffering from falling raw material prices as it was.

Development in the Asia/Pacific region in 2015 was mainly characterized by the economic slowdown in China, where the economy grew by 6.9 percent (previous year: 7.3 percent). The local stock market turbulence in the year under report had a negative impact on consumer behavior, among other things. With a plus of 0.6 percent, Japan recorded a somewhat positive trend despite a slight recession in the summer months. India proved to be the most dynamic economy out of all the major emerging markets with an increase of 7.3 percent in the year under report.

EXCHANGE RATE DEVELOPMENT

Exchange rate movements are not only of great importance for the transactions in foreign currencies; they also affect the conversion of financial data for accounting purposes. This effect was observed particularly clearly in the period under report. Measured in terms of the average exchange rate, most major trading currencies underwent considerable appreciation against the euro.

The substantial appreciation of the U.S. dollar against the euro, which started in the second half of 2014, continued especially in the first quarter of 2015. Based on the average exchange rate, this led to an annual average appreciation of 16 percent. As at year end, the American currency's exchange rate was 10 percent above the previous year's value. In the wake of the U.S. dollar, the Chinese renminbi also appreciated against the European single currency by an average of 15 percent during the year under report. The euro also performed poorly in relation to the currencies of other Asian countries, such as Japan, India, and South Korea.

However, similarly to the respective negative economic development and the continued decline in raw material prices, the Brazilian real and Russian ruble continued to depreciate significantly against the euro during the course of the year.

The strong exchange rate fluctuations in the business year under review emphasize just how important it is for MAHLE to have production locations in all major sales regions of the world. Such "natural hedging" thus enables the group to make reliable calculations that are essentially independent of currency fluctuations.

DEVELOPMENT OF THE MARKETS FOR PASSENGER CARS AND LIGHT COMMERCIAL VEHICLES

In the 2015 business year, global production of passenger cars and light commercial vehicles increased by a good percent. Overall, development remained slightly below expectations due to the economic weakness in South America and China.

In Europe, around 4 percent more vehicles were produced than in the previous year, thus exceeding the cautious expectations held at the beginning of the year. The good development in western Europe stands in contrast to the further slump in the Russian market.

Vehicle production figures in North America rose by just under 3 percent. Production in South America was strongly influenced by the general economic crisis, above all in Brazil. Overall, production figures fell by around 20 percent; thus South America now only represents less than 4 percent of the world market.

The Asia/Pacific region, which is responsible for more than 50 percent of global vehicle production, recorded a slight growth in automobile production of almost 2 percent. The market thereby developed by far weaker than expected. This was partly attributable to consumer uncertainty resulting from the economic turbulence in China. The central government in Beijing responded to these slumping sales figures with tax incentives for vehicles with a displacement of 1.6 liters or less, which led to a recovery in the fourth quarter and boosted the demand for vehicles from local manufacturers in particular. Overall, production in China rose by a good 4 percent.

DEVELOPMENT OF THE MARKETS FOR MEDIUM-SIZED AND HEAVY-DUTY COMMERCIAL VEHICLES

The production of medium-sized and heavy-duty commercial vehicles fell by around 7 percent during the 2015 business year. Production figures therefore dipped markedly below expectations.

Contrary to the global trend, production in Europe rose by around 4 percent. In western Europe, the negative trend of the previous years was curbed. However, the introduction of the Euro VI exhaust emission standard in 2014 and the resulting subdued demand in the same year also played a role here. Central and eastern Europe, on the other hand, saw a considerable dip in production mainly resulting from the slump in Russia.

Thanks to the favorable overall economic situation in North America, about 6 percent more medium-sized and heavy-duty commercial vehicles were produced than in the previous year. In contrast, the economic crisis in South America, which brought about a drastic decline of around 40 percent, had a particularly negative impact on production in this market segment.

In the Asia/Pacific region, production quantity fell by around 10 percent in the period under report. With a share of almost 60 percent of total production, the region is of great importance to the global market. Production in China experienced a particularly drastic slump with a decline of more than 20 percent, which accelerated the trend from the previous year. This was attributable, among others, to lower investments in fixed assets and exports as well as the introduction of the China IV exhaust emission standard in January 2015, which led to anticipatory effects in the previous year. Production developed positively in Japan and India.

DEVELOPMENT OF THE MARKETS FOR AGRICULTURAL AND CONSTRUCTION MACHINERY

The global production of agricultural and construction machinery fell again in 2015. The expected decrease associated with the introduction of a new emission level was confirmed in Europe and North America. The global production of agricultural machines fell below the level of 2011 in the period under report, leaving the industry faced with high overcapacities. The markets for construction machines in China, Russia, and Latin America in particular plummeted drastically. Manufacturers and suppliers around the world were equally affected by this development.

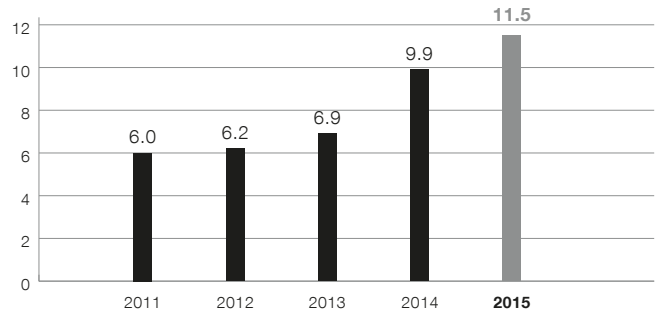
BUSINESS DEVELOPMENT

DEVELOPMENT OF THE MAHLE GROUP

In the 2015 business year, the MAHLE Group was able to increase total sales by 15.5 percent to EUR 11.5 billion and achieve the highest sales figure in the history of the company. MAHLE has thus established itself among the 20 largest automotive suppliers worldwide. This sharp rise in sales revenues is largely attributable to changes in the consolidation group with a total effect of EUR 720 million, as well as positive exchange rate developments (plus EUR 625 million). Even when adjusted for these effects, the MAHLE Group showed positive development with an organic sales growth of 2.0 percent. MAHLE thus outstripped the development of global production figures in the business year under review. Moreover, it clearly surpassed its own sales forecast from the previous year.

DEVELOPMENT OF SALES 2011 – 2015

in EUR billion



The increase in sales resulting from the changes in the consolidation group amounts to a total of EUR 720 million and is closely linked to the ongoing strategic development of the product portfolio.

A good two thirds of this effect is attributable to the acquisition of the former Delphi Thermal units, which took place on June 30, 2015. This important acquisition supports the targeted expansion of the thermal management growth business. After all, comprehensive and efficient thermal management will play an increasingly important role in all future alternative drive systems—in combustion engines, as well as electric drives and fuel cells. This acquisition ideally complements the MAHLE Group's existing thermal management activities owing to its development and production locations in all world regions and a product portfolio ranging from air conditioning modules and compressors to cooling components. It allows MAHLE to further consolidate its role as a global systems partner to the automotive industry.

The expansion of mechatronic activities accounted for another third of the first consolidation effects in the 2015 business year. The sales from MAHLE Letrika, which were consolidated for the first time in September 2014, have now been included for the full year. On June 30, 2015, the MAHLE Group consolidated the former Kokusan Denki (now trading as MAHLE Electric Drives Japan) for the first time. This followed the acquisition of all the shares in the participation, which started in 2013. The Japanese mechatronics specialist develops and produces electric motors for ABS and ESC units, steering assistance as well as industrial applications, and thus complements MAHLE Letrika's activities in the core markets of passenger cars, commercial vehicles, and industrial applications.

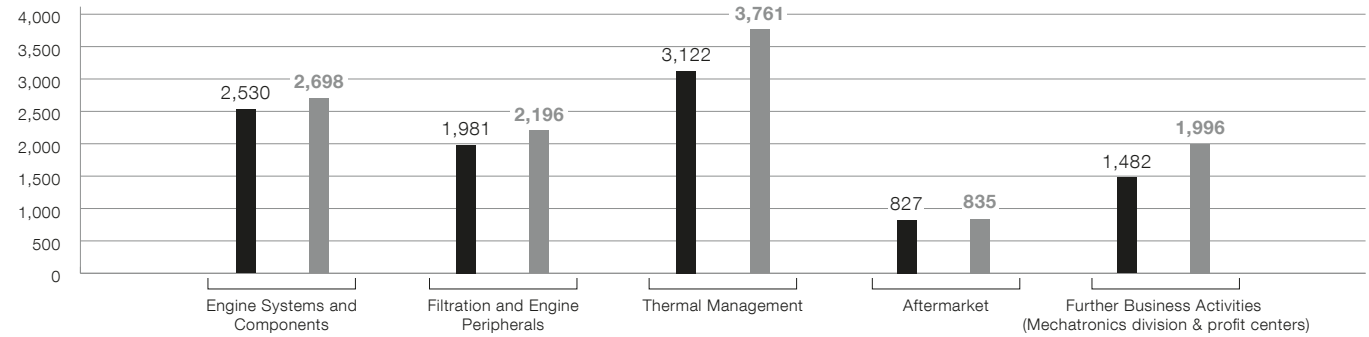
In addition to the two aforementioned acquisitions, Berlin-based MAHLE Amovis GmbH was integrated into the group at the beginning of 2015. MAHLE Amovis has a high level of competence in exhaust gas heat recovery in commercial vehicles using the ORC (Organic Rankine Cycle). In the underlying steam cycle, waste heat from the combustion engine is converted by means of an axial piston machine into energy, which is engaged mechanically in the powertrain or electrically in the electrical system. A reduction in consumption and CO_2 of up to four percent can thus be achieved in the future. This acquisition also supports MAHLE in its endeavor to provide systems and services that increase efficiency while reducing the consumption of natural resources and pollutant emissions.

In addition to consolidation effects, exchange rate influences amounting to a total of EUR 625 million had a positive impact on group sales in the 2015 business year. This was mainly due to the appreciation of the U.S. dollar and the Chinese renminbi. The depreciation of the Brazilian real, however, had a negative impact on sales.

DEVELOPMENT OF THE BUSINESS UNITS AND FURTHER BUSINESS ACTIVITIES

The following illustrates the development of the individual business units and further business activities (Mechatronics division and profit centers). With regard to the stated figures from the previous year, it should be noted that they do not necessarily correspond to the values disclosed in the previous year due to changes in the reporting structure. Comparative figures analogous to the current numbers have instead been given for the sake of better comparability. This relates to the Thermal Management business unit, into which the Thermostats and Valves profit center was integrated at end of 2014. Moreover, the former Industry business unit was subdivided into three separate profit centers at the beginning of 2015, and is therefore no longer shown separately.

SALES BY BUSINESS UNITS



ENGINE SYSTEMS AND COMPONENTS

The Engine Systems and Components business unit increased its sales in the period under report by 6.7 percent to EUR 2,698 million (previous year: EUR 2,530 million). Adjusted for exchange rate effects, sales revenues remained at the previous year's level. Series production of steel pistons for passenger car diesel engines at the Rottweil location was successfully launched. The number of delivered pistons already exceeded the one million mark in autumn 2015. Additional capacity is being established at the European locations in order to meet the increased demand. The demand for assembled camshafts and valves also developed positively.

FILTRATION AND ENGINE PERIPHERALS

In the period under report, the Filtration and Engine Peripherals business unit achieved sales of EUR 2,196 million and was thus 10.8 percent up in comparison with the previous year (EUR 1,981 million). Adjusted for exchange rate effects, the business unit reported growth of 2.2 percent. The fastest growing products were cylinder head covers, oil pumps, oil separators, and fuel filters. In addition to the new plant in Celaya/Mexico, the plants in Timişoara/Romania, Santa Catarina/Mexico, Mogi Guaçu/Brazil, and the development and sales office in Seoul/South Korea were expanded and modernized, among others. During the year under report, production and manufacturing methods were further developed to achieve failure-free, smooth production. The optimized product development process promotes the simultaneous development of products and processes, thereby increasing development quality and efficiency. The result is the best possible solution—both for the product with regard to customer requirements and process-reliable production.

THERMAL MANAGEMENT

With the integration of the former Delphi Thermal units, the Thermal Management business unit has grown significantly during the year under report. This led to the incorporation of 10 new locations in 7 countries. At EUR 3,761 million in total, the consolidated sales of the business unit for the 2015 business year were 20.5 percent above the previous year's value (EUR 3,122 million). The business unit thus generated around one third of group sales. Even adjusted for acquisitions and exchange rate effects, the sales level considerably rose by 3.1 percent. In the meantime, MAHLE is the world's second largest thermal management supplier to the automotive industry. In order to strengthen this position, several production facilities were expanded in eastern Europe and new plants were commissioned in Ramos Arizpe/Mexico and Chengdu/China in the period under report. With the expansion of this business unit, MAHLE is able to take advantage of the opportunities arising from the growing demand for improved vehicle air conditioning and energy-efficient thermal management solutions throughout the complete powertrain. Stricter emission standards also mean that ever more engines are equipped with exhaust gas recirculation.

AFTERMARKET

The Aftermarket business unit grew by just under one percent to EUR 835 million (previous year: EUR 827 million) in the period under report. Adjusted for exchange rate effects, the partner to trade and workshops generated sales at the previous year's level. Workshop equipment was strongly expanded in 2015, since this business segment expects above-average growth in all major markets. The range of services therefore includes training and technical support provided through the global MAHLE network, among others.

FURTHER BUSINESS ACTIVITIES

In 2015, the MAHLE Group's further business activities (Mechatronics division and profit centers) achieved total sales of EUR 1,996 million, compared with EUR 1,482 million in the previous year. Adjusted for structural changes in the composition, new acquisitions, and exchange rate effects, these activities achieved an organic sales growth of 4.8 percent in total.

The establishment and expansion of expertise in air conditioning compressors and mechatronic components can clearly be seen in the aggregated figures. Compared with the previous year, the MAHLE Group—including its acquisitions—was able to achieve additional sales of roughly EUR 400 million in these two business segments alone.

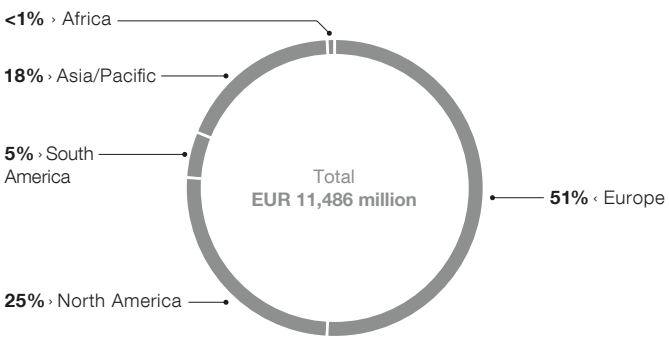
Activities in the Mechatronics division, which were merged as of January 1, 2016, generated pro forma sales totaling around EUR 321 million in the year under report. Sales from the first consolidation of MAHLE Electric Drives Japan have been included since June 30, 2015; had the full year been taken into account, this would have resulted in aggregated mechatronic sales of nearly EUR 400 million. The mechatronics business was encumbered by the general market weakness in the agricultural machines sector. At the same time, MAHLE Letrika increased its activities in the parts market. Adjusted for exchange rates, the Actuators activities achieved sales growth thanks to an increase in the volume of electric wastegate actuators and higher sales revenues from heaters.

The Control Units and Front-end Modules profit centers, which are operating as joint ventures, also made a strong contribution to growth.

DEVELOPMENT ACROSS THE REGIONS

The MAHLE Group is represented in 34 countries with its own production or development locations. In 2015, MAHLE consistently expanded its global presence as planned with new locations and acquisitions, thereby intensifying the cooperation with our local customers in all four core regions. Thanks to this greater regional presence—not to mention the further structural diversification—MAHLE is now in an even better position to offset temporary market fluctuations.

SALES BY REGION



The 2015 business year was marked by both major positive and negative market events in the regions. While business contracted sharply in South America, and China fell short of expectations, these were exceeded in Europe and North America. The business development by region illustrated below is based on sales by country of production.

EUROPE

In the Europe region, the MAHLE Group achieved sales of EUR 5,844 million, which corresponds to a growth of 13.1 percent. Adjusted for consolidation and exchange rate effects, sales exceeded the previous year's value by 6.5 percent. This growth enabled MAHLE to significantly outperform the general trend in the European vehicle markets. All of the MAHLE Group's business units contributed to this development. Europe was also the strongest growing region for the MAHLE Group—measured by organic development. In total, MAHLE generated every second euro in this region.

The Engine Systems and Components business unit achieved an organic growth of 6.8 percent, thanks to the solid demand for commercial vehicles and the launch of new products such as steel pistons for diesel passenger cars. The Filtration and Engine Peripherals business unit increased its organic sales by 10.6 percent in Europe. Significant growth was also achieved through the expansion of the controlled oil pumps product segment at the Auengrund and Wustermark locations in Germany as well as a plant expansion in Romania. The Thermal Management business unit benefited from an increase in demand for air conditioning and cooling products and improved its sales by 6.0 percent after adjustment for consolidation and exchange rate effects. Its market position was

further strengthened with the addition of new, acquisition-related locations and the expansion of existing production facilities in eastern Europe. Moreover, the integration of the Pforzheim/Germany plant into Mühlacker/Germany was completed. Business development in Aftermarket strongly reflected the different development in western and eastern Europe as well as the intense competition. Nevertheless, adjusted for exchange rate effects, sales still exceeded the previous year.

NORTH AMERICA

MAHLE generated EUR 2,915 million—a quarter of its total sales—in North America in the 2015 business year. The group was thus able to achieve a sales growth of 28.6 percent compared with the previous year. This substantial increase is chiefly attributable to consolidations and exchange rate fluctuations. Adjusted for these special effects, group sales remained approximately at the previous year's level. This development applies to all business units.

Sales in the Engine Systems and Components business unit benefited from the production ramp-ups of commercial vehicle steel pistons and assembled camshafts. The Filtration and Engine Peripherals business unit saw a particular increase in the unit sales of cylinder head covers and air filter modules in the region, whereas air intake module sales, adjusted for exchange rate effects, remained somewhat below the previous year's level. The plant construction in Celaya/Mexico and the development of a local supplier base were also a main focal point. The Thermal Management business unit benefited from a rise in demand and numerous production ramp-ups. The business volume in this region rose by almost 40 percent during the year under report as a result of acquisitions. Adjusted for exchange rate effects, the Aftermarket business unit also confirmed sales at the level of the previous year, which were driven by a positive development in workshop equipment. By expanding the compressor and mechatronics expertise, the further business activities were able to boost sales revenues in the North American market by more than 60 percent.

SOUTH AMERICA

In the period under report, major markets in South America were impacted by the considerable drop in raw material prices, weak currencies, and political crises. Brazil was particularly affected by the recession, with vehicle production falling by more than a fifth of the previous year's value. Under these very difficult circumstances, sales—5 percent of MAHLE's total sales—dropped by 13.8 percent to EUR 586 million. Adjusted for the negative impact caused by the devaluation of the Brazilian real, the decline in sales amounted to 6.7 percent. Despite the weak market demand in the passenger car and commercial vehicle markets, not to mention numerous postponed customer projects, MAHLE recorded only a comparatively small drop in overall sales.

While the Engine Systems and Components business unit recorded a decline in sales due to this weak market environment, the sales revenues generated by the Filtration and Engine and Peripherals business unit remained roughly at the previous year's level after adjustment for exchange rate effects; this is primarily attributable to the stable sales of oil filters and cylinder head covers. MAHLE's Thermal Management business unit was in turn influenced by the difficult overall situation and suffered a decline in organic sales following the general market trend. However, Aftermarket—MAHLE's second largest business unit in South America—was largely able to offset this slump with its higher unit sales of filter products. Moreover, the spare parts experts managed to increase sales by 40 percent in Argentina's difficult environment within a year.

ASIA/PACIFIC

The Asia/Pacific region was not able to achieve the expected growth. This was attributable to the sluggish vehicle market, especially in China. The increase in sales of 17.5 percent to EUR 2,094 million for the entire region is primarily due to special effects.

Adjusted for exchange rate effects, the Engine Systems and Components as well as Filtration and Engine Peripherals business units fell short of the sales level in 2014. The latter business unit, which accounts for 37 percent of MAHLE sales in the region, continued to consistently expand its activities in Southeast Asia despite the unfavorable development. This is because future growth is expected in the compact car segment as well as in the supplier business for Japanese customers. In spite of the difficult market environment, the Thermal Management business unit achieved an organic sales growth of over 3 percent. Here, the Chinese government subsidy program had a stabilizing effect, where tax benefits boosted the sale of vehicles with a displacement of 1.6 liters or less. The spare parts business in particular developed exceptionally well due to their intensified sales activities paying off. Overall, the Aftermarket business unit could surpass the previous year's sales by 11.0 percent after adjustment for exchange rate effects.

AFRICA

Business in Africa generated sales of EUR 47 million and developed approximately at the previous year's level. Sales were mainly generated by the Thermal Management business unit, which operates two locations in South Africa.

NET ASSETS, FINANCIAL POSITION, AND RESULTS OF OPERATIONS

RESULTS OF OPERATIONS

Alongside the significant increase in sales, the MAHLE Group was also able to improve earnings before interest, taxes, depreciation, and amortization (EBITDA) from EUR 1,022 million to EUR 1,093 million in the year under report. The same applies to the operating result, a key figure similar to EBIT used for internal steering, but adjusted for individual circumstances. This was achieved even though both key figures reflected major expenses incurred to secure the future economic viability of the group in the year under report: firstly, through the expansion of existing business activities and the development of new ones, and secondly, through restructuring measures at individual existing locations.

Furthermore, special effects outside the scope of operational business activities diminished the profitability of the MAHLE Group. These included higher expenses in the financial result as well as for the depreciation and amortization on obligatorily disclosed hidden reserves in accordance with the German Commercial Code (HGB) as part of the purchase price allocations. Due to these effects, result from ordinary activities of EUR 309 million (previous year: EUR 401 million) could not be improved as expected.

In the case of key income statement items, cost of sales rose to EUR 9,335 million, which led to a slight decline in the gross margin from 19.2 percent to 18.7 percent. This is attributable to operative differences relating to the business acquired in the course of the year and restructuring measures within the scope of ongoing location optimizations. Sales and administration expenses were improved relative to sales—the ratio dropped to 8.9 percent. In contrast, expenses for research and development activities developed slightly disproportionately to sales, thus reflecting the greater investment in future technologies. The balance from other operating income and expenses was slightly positive at EUR 38 million, compared with a plus of EUR 102 million in the previous year. Exchange rate effects and the increased planned amortization of goodwill were the reason for this decline, among others. With the exception of research and development expenses, all cost items were adversely affected by the depreciation and amortization on obligatorily disclosed hidden reserves in accordance with the German Commercial Code (HGB) as part of the purchase price allocations. In 2015, additional expenses arising from new acquisitions in the year under report were added to the continuing depreciation and amortization of transactions relating to previous business years (MAHLE Behr and MAHLE Letrika). In total, the depreciation and amortization resulting therefrom amounted to about EUR 142 million.

In addition to the higher depreciation of capital expenditure on tangible fixed assets, the depicted subsequent valuation effects were the reason why earnings before interest and taxes (EBIT) amounting to EUR 511 million could not be further increased in comparison with the previous year. The EBIT margin amounted to 4.5 percent compared with 5.2 percent in the previous year. Adjusted for the previously mentioned planned depreciation and amortization effects from purchase price allocations, including the related amortization of goodwill, the EBIT margin amounted to 5.7 percent.

Under EBIT, additional charges from the nonoperating income components of the financial result and taxes contributed to a decline in the net income for the year to EUR 122 million. Expenses in the financial result primarily increased due to a decline in the results from investments as well as a rise in net expenses from the compounding of future pension payments and the increase in value of the pension assets. Income tax expense rose during the year under report to EUR 156 million, which corresponds to an income tax rate of 50 percent. The high tax rate is primarily due to the higher planned amortization of goodwill as well as lower results from associated companies. While both issues put a burden on the commercial result, they did not lower the tax base. In addition, the special effects that diminished the tax rate in the previous year did not apply this year.

CONSOLIDATED INCOME STATEMENT

in EUR million	**2015**	**in %**	**2014**	**in %**
Sales	11,486.1	100.0	9,942.4	100.0
Cost of sales	–9,334.9	–81.3	–8,036.7	–80.8
Gross profit on sales	**2,151.2**	**18.7**	**1,905.7**	**19.2**
Selling expenses and general administrative expenses	–1,020.0	–8.9	–941.1	–9.5
Research and development expenses	–657.0	–5.7	–552.3	–5.6
Other operating income and expenses	37.6	0.3	102.2	1.0
Financial result	–202.9	–1.8	–113.5	–1.1
Result from ordinary activities	**308.9**	**2.7**	**401.0**	**4.0**
Taxes	–186.5	–1.6	–121.8	–1.2
Net income	**122.4**	**1.1**	**279.2**	**2.8**
EBIT	**511.2**	**4.5**	**514.1**	**5.2**
EBITDA	**1,092.6**	**9.5**	**1,022.2**	**10.3**

NET ASSETS POSITION

The MAHLE Group's balance sheet total rose by EUR 1,090 million to EUR 7,849 million in the 2015 business year. A large proportion of the balance sheet extension can be explained by the takeover of assets and liabilities in line with the acquisitions made during the year. On the liabilities side, these strategic investments were reflected in an increase in net debt, since a bond was issued to finance them.

As at the balance sheet date, fixed assets amounted to EUR 3,812 million and were thus EUR 691 million higher than in the previous year. Alongside the capital expenditure on tangible fixed assets, which exceeded depreciation, the increase is primarily due to the first consolidation of the acquisitions made in the period under report. The disclosed hidden reserves as part of the purchase price allocations with regard to customer relationships, acquired technologies, and the accounting of goodwill were decisive in increasing intangible assets by EUR 266 million to EUR 771 million.

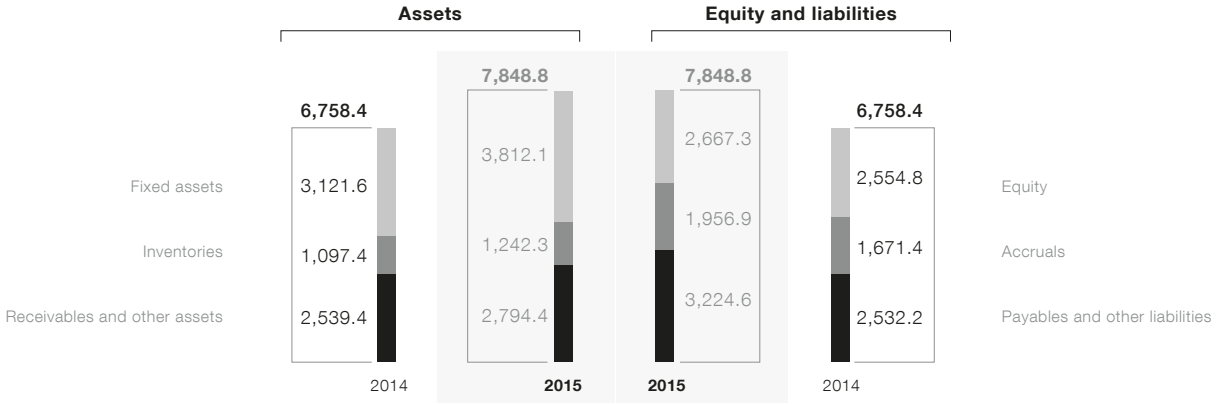
The growth of current assets to EUR 3,792 million (previous year: EUR 3,410 million) was also strongly influenced by first consolidation effects. Inventories rose by EUR 145 million to EUR 1,242 million. Adjusted for first consolidation and exchange rate effects, the rise amounted to 1.5 percent and thus lay below organic sales growth. The increase in receivables and other assets from EUR 1,785 million to EUR 2,240 million is, in addition to the business expansion, also due to higher tax refund claims. As at the balance sheet date, MAHLE held securities and liquid funds amounting to EUR 310 million. The year-on-year decline is attributable to a reduction in liabilities to banks in order to optimize liquid funds toward the end of the year.

On the liabilities side, equity increased by EUR 112 million to EUR 2,667 million as a result of exchange rate effects and the retention of earnings. Owing to the significantly higher balance sheet volume as a result of the first consolidations, the equity ratio fell to 34.0 percent. The growth in accruals for pensions by around 8 percent to EUR 544 million can be attributed in particular to a further drop in the interest rate level and the associated reduction in discount factors. Other accruals rose by EUR 245 million to EUR 1,413 million as a result of the first consolidation effects as well as the business expansion. In contrast to the growth in accruals, trade payables declined slightly after adjustment for first consolidation effects. To finance the strategic investments made during the business year, the MAHLE Group issued another bond with a volume of EUR 500 million. However, the liabilities to banks remained stable compared with the previous year.

Besides the circumstances depicted in the balance sheet, as at December 31, 2015, there were significant off-balance-sheet transactions amounting to EUR 153 million (previous year: EUR 115 million) in connection with rental and leasing agreements for land and buildings. This increase can be attributed both to the acquisitions made and the new or extended agreements. Moreover, there were off-balance-sheet transactions of EUR 146 million (previous year: EUR 153 million) relating to factoring, which contributed to strengthening liquidity and the diversification of financing sources.

BALANCE SHEET STRUCTURE OF THE MAHLE GROUP

in EUR million



INVESTMENTS

In the year under report, the MAHLE Group invested EUR 564 million in property, plant, and equipment. This represents a year-on-year growth of EUR 76 million and reflects the company's increased volume of business. The investment ratio in relation to sales remained constant compared with the previous year at 4.9 percent. At 134 percent (previous year: 135 percent), the ratio to depreciation and amortization also lay at the level of 2014.

Capital expenditure on tangible fixed assets mainly served to pave the way for future growth. Investment activities were primarily focused on eastern Europe and North America. Capital expenditure on tangible fixed assets in the European markets amounted to 47 percent of the overall volume—the year-on-year rise can be attributed to the markedly higher investments in eastern European locations. On the one hand, these were connected to the ramp-up of thermal management locations in the region. On the other, new capital-intensive projects, for example, the production of pistons and assembled camshafts, played an important role. The increased investments in North America (25 percent of the overall volume) are mainly attributable to new plant constructions and the merging of locations in Mexico. The acquisition-related strengthening of our market presence and the establishment of the new air conditioning compressor business also contributed to this upward trend. The Asia/Pacific region accounted for 21 percent of investments. Here, the focus was on the expansion of existing plants in South Korea, the construction of a plant in Shiyan/China, and the opening of a production facility in Chengdu/China for the Thermal Management business unit.

Alongside the capital expenditure on tangible fixed assets, strategic acquisitions were made by MAHLE to pave the way for the future of the group. The largest investment was the takeover of Delphi's thermal management activities. The mechatronics and electrical activities were expanded by acquiring all shares in Kokusan Denki (now trading as MAHLE Electric Drives Japan). MAHLE also made further investments in the Bosch Mahle Turbo Systems joint venture. By contrast, the company sold the shares it held at equity in the Chinese joint venture Shanghai Sanden Behr Automotive Air Conditioning during the year.

FINANCIAL POSITION

In line with its global growth, MAHLE has created a broad basis for the group's financing over the past few years. The financing portfolio not only includes syndicated credit lines, German private placement loans ("Schuldscheindarlehen"), and bilateral loans, but also euro-denominated corporate bonds. By pursuing a conservative financing policy, the MAHLE Group is aiming for an implicit investment grade risk. This positioning is evident in the moderate leverage and adequate equity ratio.

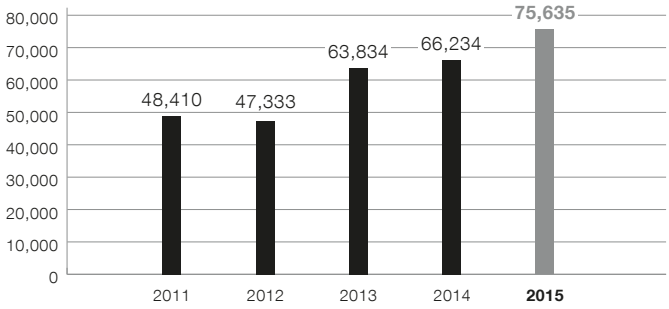
The cash flow for the 2015 business year was significantly affected by strategic investments. Overall, the MAHLE Group generated a cash flow from operating activities of EUR 638 million. Investing activities resulted in a cash outflow amounting to EUR 1,224 million. The biggest drivers were capital expenditure on tangible fixed assets as well as strategic acquisitions. To strengthen financial flexibility, the volume of the existing Medium Term Note Program on the Luxembourg Stock Exchange was raised from EUR 1 billion to EUR 2 billion in the business year. In order to finance the strategic acquisitions, a second bond with a volume of EUR 500 million, a term of 7 years, and a coupon of 2.375 percent was subsequently issued successfully to a broad investor base. This explains the positive cash flow from financing activities of EUR 336 million.

In accordance with the German Accounting Standard No. 21, which is to be applied for the first time, MAHLE held newly defined cash funds amounting to EUR 131 million as at the end of the business year. According to this definition and in contrast to the liquid assets in the balance sheet amounting to EUR 310 million, bank balances with an initial term of more than 3 months are dispensed with; at the same time, short-term liabilities to banks with an inital term of less than 3 months are deducted. This also includes the short-term use of long-term credit lines amounting to EUR 62 million, which partly explains the large deductions. At the end of the year, the unused but firmly committed credit lines amounted to EUR 1,687 million which, along with liquid assets, contributed to the sound financial stability of the group. The MAHLE Group's cash holding is diversified across various banks which, by strictly monitoring financial counterparty risks, are selected according to clear rating criteria.

HUMAN RESOURCES

The MAHLE Group employed 75,635 people worldwide as at the reference date of December 31, 2015. Compared with the previous years, the headcount increased by 9,401 people in the 2015 business year—a staff increase of more than 14 percent. The integration of new employees was therefore one of the group's most important tasks in 2015, and will also be of great significance in the year ahead.

HEADCOUNT DEVELOPMENT 2011 – 2015

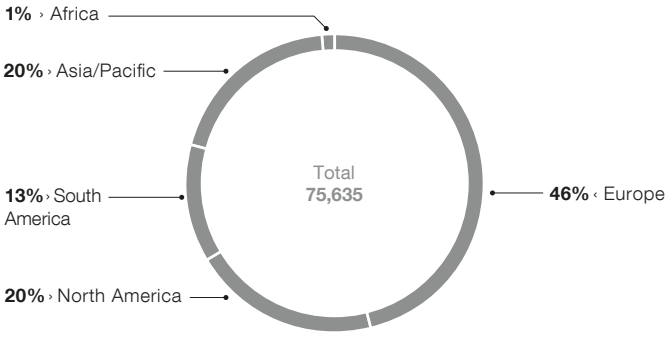


The sharp increase in the number of employees is directly related to the integration of the former Delphi Thermal (7,944 employees), Kokusan Denki (673), and Amovis (25) business activities. As a result, a total of 8,642 new employees joined MAHLE. The overall integration of new employees into the group progressed well in the period under report. MAHLE was able to successfully apply its past experiences to the integration process. In the last 20 years, MAHLE has integrated more than 20 companies into the group. Without taking the three acquisitions of the past business year into account, as at the end of 2015, there were 756 more employees worldwide working at MAHLE than in the previous year.

HEADCOUNT BY REGION

As at the reference date of December 31, 2015, MAHLE employed a total of 35,014 people in Europe. This corresponds to a growth of 11.4 percent. In Germany, the number of employees remained constant at 14,233. The headcount in North America rose particularly strongly as a result of acquisitions. As at the end of 2015, there were 15,286 employees, totaling 4,752 more than in the previous year. Mexico was mainly responsible for the 45.1 percent increase in employees in North America. As at the reference date, there were 14,776 MAHLE employees working in the Asia/Pacific region. This corresponds to a rise of 9.8 percent compared with the previous year. In South America, the number of employees decreased slightly to 9,644. In Brazil, the necessary workforce adjustments (minus 916) due to the market slump exceeded the acquisition-related increase in employees (plus 677). At 915, the number of employees in Africa remained almost unchanged compared with the previous year.

HEADCOUNT BY REGION

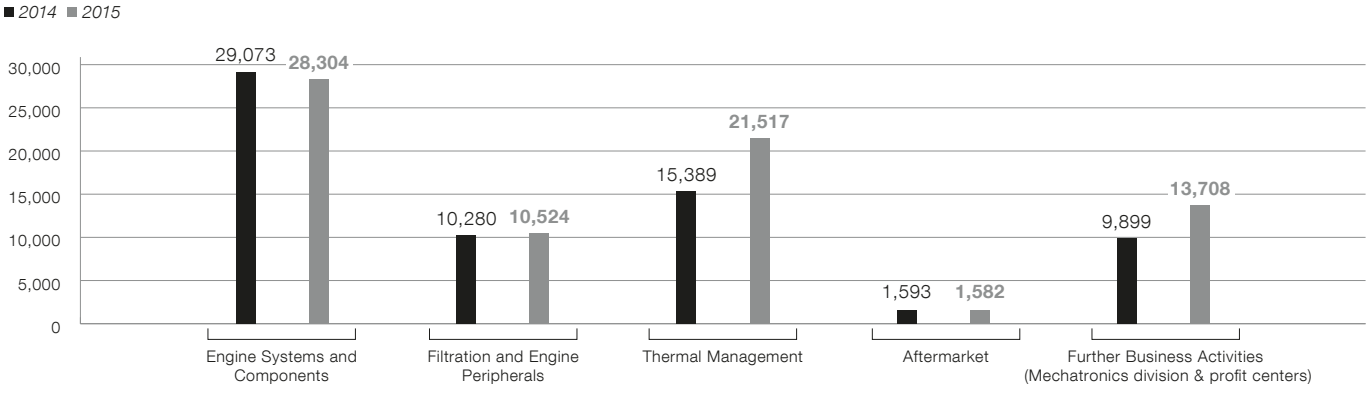


HEADCOUNT BY BUSINESS UNIT

As at the reference date, the Engine Systems and Components business unit employed 28,304 people at 48 production locations. This corresponds to 37.4 percent of all employees in the MAHLE Group. The number of employees decreased slightly by 2.6 percent due to restructuring measures, which will be continued in the coming year. 10,524 people were employed at the 34 plants of the Filtration and Engine Peripherals business unit. This represents a slight increase of 2.4 percent in comparison with the previous year. The headcount in the Thermal Management business unit rose by 39.8 percent as a result of acquisitions. 21,517 people were employed at the now 41 locations of this business unit, which corresponds to 28.4 percent of the group total (23.2 percent in the previous year). With regard to the Aftermarket business unit, the number of employees remained more or less at the same level as in the previous year with 1,582 people at 22 locations. In the remaining business activities, a total of 13,708 people were employed as at the reporting date. This is 3,809 more people than in the previous year. This increase is attributable to acquisitions as well as the reorganization of the former Industry business unit.

The MAHLE Group is operating in a highly dynamic market environment. Furthermore, technological interplay is becoming increasingly complex. This places heightened requirements on each individual employee. Motivated and highly qualified employees are the key to ensuring the sustainability and success of the company. This is why MAHLE once again invested intensively in the training and further education of its employees to the sum of EUR 11.8 million in 2015 (EUR 10.1 million in the previous year). In addition to a variety of work-related training sessions, MAHLE employees attended 62,758 qualification activities during the year under report. The global absence rate (excluding joint ventures) was 3.6 percent on average during the business year.

HEADCOUNT BY BUSINESS UNIT



TECHNOLOGY AND INNOVATION

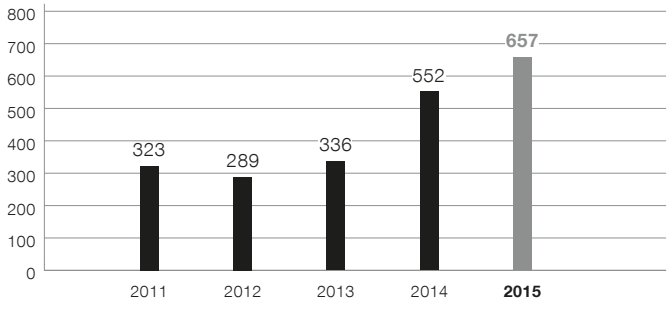
RESEARCH AND DEVELOPMENT ACTIVITIES

The MAHLE Group has unique systems expertise in the area of powertrains, engine peripherals, and thermal management. MAHLE has thus established itself as a leading global development partner to the automotive and engine industry. The group intends to expand this position over the coming years. This goal is favored by the fact that greater comfort and driving pleasure combined with fewer emissions and cleaner air—especially in the major urban areas—can only be achieved by developing new technologies. As a result, vehicles on the whole are becoming increasingly complex, since more and more components and systems are networked and interact with each other.

MAHLE has therefore considerably expanded its research and development activities across the group. In the 2015 business year, the group invested EUR 657 million or 5.7 percent of sales in this area. This corresponds to an increase of more than EUR 100 million compared with the previous year (EUR 552 million), where the ratio was still at 5.6 percent. The number of employees in research and development registered an above-average growth of almost 20 percent in comparison with the overall development of the group. At the end of the period under report, just under 6,000 people were employed in research and development at MAHLE, which is almost 1,000 more employees than in the previous year.

R&D EXPENDITURE 2011 – 2015

in EUR million



Thanks to the latest acquisitions, the group was able to further strengthen its regional research and development presence. New additions include the development locations of Lockport and Amherst/USA, Bascharage/Luxembourg, Šempeter pri Gorici/Slovenia, and Numazu/Japan. All in all, the MAHLE Group now has 15 major research and development centers, which are responsible for cross-technological activities. It also has twelve competence centers, which promote the development of individual products and systems.

The new products that emerged from the researchers and developers' work in the 2015 business year enabled MAHLE to consolidate its leading position and enter new markets. The innovative strength of the company was also further increased. MAHLE intends to tap the further potential of the latest acquisitions in the years ahead. Key innovations of the period under report are presented below.

INNOVATIONS 2015

GASOLINE ENGINE PISTON DEVELOPMENT

The latest generation of pistons for gasoline engines caters for progress in developing engines with a higher output while saving fuel. The particularly lightweight yet structurally stable EVOLITE® pistons reduce CO_2 emissions by about 0.5 grams per kilometer. The EVOTEC RSC® with ring carrier and integrated cooling channel stands out as particularly resistant to pressure and heat. These pistons—which have weight advantages of over 15 percent compared with the previous generation, lower frictional losses, and yet markedly greater strength—form the basis for efficiency and driving pleasure in modern downsizing engines.

iCAS: ONE SYSTEM FOR BOTH ENGINE AND AIR CONDITIONING

With the integrated charge air subcooling (iCAS) system, MAHLE actively incorporated air conditioning into the engine cooling and charge air cooling system respectively for the first time. Until now, the lowest possible charge air temperature was determined by the ambient temperature. With iCAS, MAHLE has now broken through this barrier. The charge air is first conventionally precooled, then routed through the iCAS heat exchanger, which in turn is cooled by

a dedicated circuit coupled to the vehicle air conditioning system. The charge air temperature can thus be cooled down to the point of condensate formation. This greatly increases the amount of charge air supplied and raises the torque of a downsizing gasoline engine at low speed by up to 19 percent—an enormous advantage, yet not at the expense of air conditioning comfort or higher fuel consumption.

DECISIVELY COMPLEMENTED AIR CONDITIONING SYSTEM

During the business year, MAHLE expanded its air conditioning portfolio with an important product segment: the air conditioning compressor. Consequently, the complete air conditioning system—from the control unit with electronic controls to the relevant components of the air conditioning circuit to the outlet nozzle—is available from one single source. This facilitates air conditioning solutions that are even better coordinated and thus more efficient. MAHLE is at the same time improving cabin comfort with its filter technology. While today's air filters already absorb around 60 percent of respirable fine particulates, the MAHLE Group is currently developing a solution that keeps over 95 percent of the particles, also known as $PM_{2.5}$, away from passengers. This is particularly important as clean air actively contributes to human health.

BATTERY TEMPERATURE CONTROL

Lithium-ion batteries are the essential element of electrified and electric drives. Their efficient functioning is crucial to both range and performance. This is of fundamental importance in order to achieve wider acceptance of these alternative drive systems. During operation, the battery must be kept within a temperature range of about 0–45°C. Battery temperature control using a thermoelectric heat pump presents a promising alternative to classic temperature control methods connected to the air conditioning system and with separate heating components. MAHLE's Corporate Research and Advanced Engineering developed this technology within three years and released it for series development in 2015.

MECHATRONICS

MAHLE also sustainably strengthened its mechatronic activities in the 2015 business year. The group was thus able to present its ultramodern drive motors for electric two-wheelers for the first time at the Tokyo Motor Show 2015. The demand for these is considerable, particularly in Asia. The electronically controlled motors have brushless, direct-current motors (brushless DC or BLDC), which are distinguished by their very low susceptibility to wear and their high efficiency. Such electric motors from MAHLE are already being used by European and American two-wheeler and recreational vehicle manufacturers.

NATURAL GAS DRIVE WITH HIGH EFFICIENCY

MAHLE pushes ahead with its work on environmentally friendly natural gas drives (CNG). Using its own three-cylinder downsizing engine, the group is currently developing a monovalent natural gas variant that combines great driving dynamics with low CO_2 emissions. This makes CNG an attractive alternative fuel for the mass market. Optimally designed to run on CNG, the MAHLE engine should be on par with its gasoline-powered counterpart in terms of driving dynamics, with 286 newton metres of torque and over 130 kilowatts of power. At the same time, its CO_2 emissions are more than 30 percent below those of a comparable gasoline engine. At rated power, the specific consumption decreases by more than 100 grams per kilowatt hour to 247 grams, which almost corresponds to the values of comparable diesel engines. Implementing this technology on a larger scale requires modern engine components. They need to withstand the high pressures that are called for in CNG operation. MAHLE applies its comprehensive expertise in combustion engine components to further develop these components.

MAHLE JET IGNITION

MAHLE Jet Ignition, the new lean burn combustion process originally developed by MAHLE for Scuderia Ferrari, achieves substantially greater thermal efficiency in gasoline engines and thus higher performance in motorsport. At the same time, it significantly reduces the susceptibility to knocking during combustion. Both are achieved by means of surface ignition of the fuel-air mixture. Tests on mass-production engines have already shown that this development by the engineering service provider MAHLE Powertrain offers promising consumption savings in gasoline engines. What is already being implemented in motorsport must still be fine-tuned for series production.

PURCHASING

Steel, aluminum, nickel, copper, and resins are among the most important raw materials used by MAHLE in production. Sustained overcapacities and some marked falls in prices influenced the development of many raw materials during the course of 2015. The summer of 2015 was particularly subjected to a drop in the price of key raw materials, such as aluminum, nickel, copper, and oil.

There were, however, large regional differences in the prices of raw materials. In Europe, the downward trend in prices was undermined by the depreciation of the euro against the U.S. dollar. Taking the European single currency as a basis, the procurement costs for aluminum even increased in 2015 compared with the previous year—despite the fact that in the fourth quarter, the price for this raw material was at the lowest it has been since 2009. The premium for the physical delivery of aluminum has also been falling since the beginning of 2015. In the previous year, this price premium had resulted in an all-time high, which had strongly impacted the overall price of this raw material.

The price of steel and scrap fell during the year under report, too. The development of oil prices was also noteworthy, as they slumped by more than 50 percent since the summer of 2014. This led to delayed price reductions in crude oil derivatives, which were, however, partially offset by the rising dollar exchange rate in Europe and Asia. Based on agreed pricing models, the reductions in crude oil derivatives basically led to lower procurement costs for resins at MAHLE. By contrast, the considerably weaker euro meant that European deliveries from China and India continued to lose their appeal due to cost considerations. However, MAHLE Purchasing was in a position to compensate for these currency shifts to a large extent.

Despite falling prices and the excess in supply, some business units recorded above average capacity bottlenecks at suppliers, which were induced by overstepping the planned quantities. These experiences led to MAHLE reintensifying its risk management with regard to the early detection of potential capacity bottlenecks. A project started in 2015 addresses this issue by identifying systemic differences between planned and actual quantities throughout the entire supply chain.

There were regional variations in the development of energy prices in 2015. European wholesale prices for electricity fell in the course of the year. In Germany in particular, lower wholesale prices were almost offset by increased grid usage charges. Price developments appear to be levelling off considerably in the foreseeable future, whereas grid charges are likely to continue rising. In 2015, natural gas prices on the European futures markets were volatile and a moderate increase is expected with regard to cost allocations and network charges. In Brazil, spot market prices eased compared with the extremely high price levels of the previous year. However, due to existing contractual agreements, MAHLE could only take advantage of these price cuts to a limited extent. In North America, the USA experienced only a moderate fall in electricity costs as a result of declining natural gas prices and a rise in demand. In Mexico, the price for electric energy was influenced by government regulation and declined significantly. Besides favorable energy prices, MAHLE was able to achieve costing accuracy in the period under report due to its established procurement strategy. Furthermore, continuous measures to increase energy efficiency contributed to reduced consumption.

Additionally, purchasing activities in the period under report focused on integrating the newly acquired business activities into the MAHLE Group. Goods that are not used in production will be procured through a central purchasing department in future. The purchasing of production materials for the new Compressors business activity will act as an autonomous organization. The remaining purchasing activities of Thermal Management will be integrated into the existing purchasing organization of the business unit bearing the same name. Thanks to a common supplier base, a similar purchasing portfolio, and volume bundling, it was thus possible to already leverage the first synergies.

PRODUCTION, QUALITY, AND ENVIRONMENT

GLOBAL PRODUCTION NETWORK

The MAHLE Group has production plants at more than 170 locations worldwide. The integration of company acquisitions has resulted in 17 additional production plants. MAHLE has also inaugurated new production plants in Ramos Arizpe and Celaya/Mexico, as well as Chengdu/China, among others. An additional new plant in Shiyan/China is to commence production in the first half of 2016. Moreover, a number of production lines at existing locations have been expanded or modernized. These measures serve to enhance efficiency and, above all, further improve the products of MAHLE. They are part of a continuous process, which encompasses all areas of the company.

QUALITY MANAGEMENT AT MAHLE

Quality management at MAHLE takes a correspondingly holistic approach, which integrates all processes both in and beyond production. All processes in the company are thus recorded, evaluated, and scrutinized. These findings, in turn, provide the basis for further optimization of the processes. Quality management at MAHLE is thereby fully integrated into all of the group's business processes.

The global database for processing customer complaints was further expanded during the period under report. This now allows for an improved root cause analysis and the faster processing of complaints.

Another area of focus was the compilation of norms and standards. As a result, diverse customer requirements can be implemented in a safer, more transparent, and more efficient manner in the future. This new database for customer norms and standards will be available throughout the group in 2016.

IMPROVING CUSTOMER SATISFACTION

The MAHLE Group aims to pursue the zero-defect principle. Potential defects are already eliminated during product development. Quality management accompanies and safeguards series production. However, should any defects occur, they are processed using a standardized solution procedure and promptly rectified.

MAHLE has a comprehensive quality management system in which all essential aspects and key figures are tracked on a systematic and regular basis. This has reduced the number of customer complaints in the Engine Systems and Components as well as Filtration and Engine Peripherals business units in comparison with the previous year. This value has increased in the Thermal Management and Aftermarket business units compared with the previous year; it is mainly attributable to the more detailed compilation and analysis of customer feedback. The number of faulty deliveries rose in comparison with the previous year's level. In the 2016 business year, the control loops will be further optimized as part of the group-wide quality improvement program aiming at speeding up the flow of information and improving its content. This measure should sustainably optimize the quality of the company's products and systems.

QUALITY AWARDS FROM OUR CUSTOMERS

In the past business year, numerous customers again recognized the quality of MAHLE products and systems. Prizes were not only awarded to the entire MAHLE Group, but also to many individual MAHLE locations in Asia, North and South America as well as Europe.

ENVIRONMENT, SUSTAINABILITY, AND SAFETY

MAHLE regards comprehensive occupational health, safety, and environmental protection (HSE) as a basic prerequisite for safe and environmentally friendly development and production processes. A consistent review of the group's own specifications is an integral part of the quality assurance process and therefore encompasses all group divisions. Moreover, MAHLE is investing in the systematic further development of its production systems in order to keep the emissions of all production locations as low as possible. MAHLE has stipulated group-wide, uniform guidelines. This allows for tapping previously unused energy efficiency potential, lower energy costs, and reduced greenhouse gas emissions (e.g., CO_2 emissions). Since 2015, both the goals and their implementation have been jointly agreed with all regions. Energy management is thus making an important contribution to environmental protection. On the basis of the guidelines, compliance with MAHLE's specified global uniform safety standards is also reviewed at all locations. Thus, MAHLE ensures a safe environment for its employees as well as smooth production processes and compliance with all legal standards.

OPPORTUNITY AND RISK REPORT

The MAHLE Group uses a management system to identify and assess the business and financial opportunities and risks associated with business operations. Targeted adjustments to operations are based on the insights gained therefrom. A globally active internal audit verifies the compliance and efficiency of the processes and internal control systems on a regular basis by means of an audit plan, which changes on an annual basis.

The following key areas characterize the risk management system, which is currently being further expanded due to the strong growth over the past years.

MARKET AND TECHNOLOGICAL TRENDS

The systematic monitoring of market and technological trends ensures that opportunities and risks can be identified at an early stage. Information from these analyses is used to make decisions regarding future business segments and new production processes. The measures derived are included in the strategic corporate or budget planning. Their implementation is monitored in the management reporting. The MAHLE Group addresses opportunities and risks arising from the increasing environmental awareness of markets and new statutory requirements toward reducing emissions by incorporating relevant topics into international research and development activities at an early stage. With its wide range of technologies, the group offers competitive and innovative products that increase the efficiency of the combustion engine, enable the use of alternative drive configurations, as well as a holistic, intelligent thermal management system. With its continuously expanding portfolio of electric drives and auxiliary components, MAHLE is benefiting from the growing hybridized motor vehicle market. In order to specifically strengthen these activities, several acquisitions were made, which have meanwhile been integrated into the MAHLE Group. To pool the knowledge in this growth market, the new units joined forces with MAHLE's existing mechatronics activities to form a new division on January 1, 2016. Furthermore, an additional acquisition enabled the group to further expand its thermal management business and broaden its product portfolio to include air conditioning compressors during the period under report. With this takeover, MAHLE has acquired the necessary expertise to develop electric air conditioning compressors for the growing plug-in hybrid and electric vehicle market.

Economic fluctuations or changes to the political framework in individual regions or countries can have a significant impact on market events and subsequently on the business development of the group. In light of these latent prevailing uncertainties, the MAHLE Group's broad global orientation represents a major stabilizing factor. The MAHLE Group is striving to achieve the best possible spread of market and customer risks by further expanding its global presence. A highly diversified customer and product portfolio is also of great help here. Potential declines in demand in individual markets or from individual customers can be compensated at least partially by counteracting market cycles in other regions and make it possible to benefit from regional growth potential. MAHLE sees the possibility of a global market slump similar to the crisis in 2009, which had a huge adverse effect on profit, as one of the greatest fundamental risks for the group. In such a case, existing and refined early warning systems and action plans limit the repercussions.

PROCUREMENT AND PRODUCTION

Another key aspect of risk management is the aim to minimize the negative effects arising from the procurement markets. Regular supplier reviews are carried out in order to avoid unexpected supply bottlenecks and/or price increases in purchasing. Special care is also taken to safeguard the independence from suppliers. Appropriate safety stocks and OTC hedging transactions also reduce the procurement risks.

The MAHLE Group operates its own locations in all key regions. This allows for the regular exchange of best practices in order to continuously optimize production processes. Unforeseeable circumstances, unexpected technical faults, accidents, and human error can impair production operations at the locations. Potential operative risks are counteracted by means of wide-ranging measures relating to safety

at work, optimized production processes, and high quality standards. The MAHLE Group is audited and certified in accordance with all major external standards and specifications, and is thus subjected to important external checks that serve to limit risks. Possible damages and resulting disruptions of operations, as well as other cases of damage, liability risks, and warranty claims are covered by means of insurance policies to an economically prudent degree. Any further known profit-related burdens, where legally required, are entered as accruals in the consolidated financial statements, or taken into account within the framework of corporate planning.

FINANCE MANAGEMENT

A systematic and group-wide finance management system ensures the 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 the group's foreseeable financial requirements. The financing mix is designed to take into account security, flexibility, and cost considerations. It aims to secure financial independence, limit financing risks, and allow the group to exploit business opportunities at all times.

Currency risks are detected using a group-wide planning and reporting system. Risks are largely hedged with a horizon of up to 24 months. The hedging is executed on the basis of standardized group-wide hedging principles that include no market forecast or own opinion. 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, whereby expected and not yet invoiced currency risks are covered with continuously declining hedging grades. The resulting hedging relationships generate valuation units in accordance with the critical term match method. The interest rate risk is subjected to value-at-risk analyses. Counterparty risks with financial institutions arise from OTC hedging activities and other financial transactions. These are identified and evaluated in a group-wide uniform reporting system. If predefined thresholds are exceeded, the counterparty risk is influenced by the targeted spread of risks.

HUMAN RESOURCES, IT, AND ACCOUNTING

The recruitment and development of top-quality employees, their continued promotion and qualification, and their long-term retention in the group represent a major factor for MAHLE's sustainable success. A comprehensive personnel marketing concept affords crucial opportunities for recruiting highly qualified employees by means of early and direct contact with potential applicants. At the same time, this reduces the risk of delaying or not finding suitable staff for vacant positions. In order to guarantee the group's long-term success and take advantage of the opportunities arising from market and technological changes, personnel requirement planning is linked with developments in the relevant markets and with strategically significant technologies and business segments. The risk of losing employees in strategically important positions is counteracted by means of performance-related remuneration systems, modern pension schemes, and advanced training activities.

In the IT division, security technologies protect against unauthorized access to data or misuse of data by internal and external parties. Server and storage systems allow data to be recovered at short notice in emergency and crisis situations. The defined security standards not only encompass the technical specifications of the hardware and software, but also incorporate functional security structures and organizational provisions. In addition to detailed backup and recovery procedures, the risk of severe disruptions is reduced, 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 compliance with 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. Besides systemic controls, compliance with the MAHLE guidelines is ensured by means of specialist advice and manual checks, as well as through the validation of data plausibility by group accounting.

REPORT ON POST-BALANCE SHEET DATE EVENTS

REGULATIONS AND LEGISLATION

The introduction and implementation of directives alongside organizational and work instructions ensures that statutory requirements are observed. Internal and external experts are integrated into the processes from an early stage to minimize risks and take advantage of opportunities that could arise from fiscal, occupational, competition, patent, antitrust, and environmental regulations and legislation, among others. As part of the integration of the MAHLE Behr Group, the existing compliance systems in both companies were harmonized in 2014 and integrated into the MAHLE compliance structure. Key elements arising therefrom include the MAHLE Business Code, a global compliance organization, a training concept for compliance-relevant risk areas, and various preventive measures.

In 2012, an accounting provision in the form of an accrual was established for the investigation proceedings brought against the Behr Group in May 2012 by antitrust authorities for suspected restrictive practices in automotive thermal systems. More recent findings in 2014 and 2015 were included in the evaluation of accruals.

OVERALL ASSESSMENT

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

No events occurred after the conclusion of the 2015 business year that would impact the group's annual financial statements.

OUTLOOK

OVERALL ECONOMIC DEVELOPMENT

The overall economic predictions for the 2016 business year envisage a similar development to that of the period under report. In its January report, the International Monetary Fund (IMF) assumes the growth of the global economy will be somewhat higher at 3.4 percent, compared with 3.1 percent in 2015. Further changes in raw material prices, a worsening of the situation in China, and an escalation of geopolitical tensions all pose risks to this development. The U.S. Federal Reserve's decision to raise interest rates for the first time at the end of 2015 could also provide the momentum for renewed turmoil, especially in the emerging markets.

The European economies are likely to continue benefiting from low raw material prices as well as a lasting stabilization of domestic demand. Moreover, the European Central Bank (ECB) has announced its intention to pursue its expansionary monetary policy in the euro zone.

The U.S. is also expected to sustain its growth path. However, the indicated change of policy by the U.S. Federal Reserve, the great pressure experienced by the oil industry due to the drop in prices, and the strength of the U.S. dollar hampering exports pose risks to this development. A noticeable brightening of the situation and thus an end to the recession is not expected in Brazil or the entire South American economic area.

At 6.3 percent, the growth prospects for China are once again below those of 2015. The reason for this is the central government's targeted structural shift away from export-led growth toward stronger consumption-induced domestic demand. The outlook for India is more favorable, where reforms, increased investments, and sustained strong domestic demand may prop up local growth. A slightly positive economic development is anticipated in Japan.

DEVELOPMENT OF THE VEHICLE MARKETS

MAHLE is expecting a global increase in production of about 2 percent in the passenger car and light commercial vehicle segment in 2016. Further growth is projected for Europe and North America, which is likely to be below the previous year's value, however. In the Asia/Pacific region, MAHLE anticipates a growth of a good 2 percent. The primary driver here is India, with a production increase in the high single-digit percentage range, followed by China. The forecast for South America is less optimistic.

The markets for medium-sized and heavy-duty commercial vehicles will probably remain volatile in 2016, too. Overall global production is expected to be slightly under the previous year's level. For Asia/Pacific, which is by far the most important market, MAHLE only anticipates restrained growth. This development is highly dependent on the stabilization of the recently declining Chinese market, where almost a third of the world's medium-sized and heavy-duty commercial vehicles are produced. Production in Europe should also contribute to growth, while a saturated market and consequent decline is expected in North America following the strong growth of recent years. In South America, the downward trend is likely to continue.

MAHLE is expecting a slight growth in agricultural and construction machinery compared with 2015, which proved to be a very difficult year. However, the sector will continue to be marked by high overcapacities. A decisive factor in the recovery of the market is the somewhat greater demand in Europe as well as restrained growth in the Asia/Pacific region. The forecast for the North American market remains at the previous year's level.

DEVELOPMENT OF THE MAHLE GROUP

The MAHLE Group is anticipating a further moderate increase in sales for 2016. This expectation is subject to the stabilization of exchange rate fluctuations. The important automotive markets are generally expected to show further positive development, albeit with some regional differences. With respect to result from ordinary activities, a moderate increase is also expected.

The MAHLE Group wants to maintain or expand its top position among the three leading suppliers in all core business segments.

MAHLE doesn't see the increasingly stringent global exhaust and emission legislations as a challenge, but rather as an opportunity to develop new technologies, as MAHLE's comprehensive technological expertise enables the company to create further attractive market opportunities in all business activities. MAHLE also intends to expand this potential by networking its activities much more closely. As such, three MAHLE business units are already currently working on joint innovative solutions for energy-efficient exhaust gas heat recovery using WHR systems.

MAHLE will push ahead with its strategy in 2016. This means that on the one hand, the group will systematically develop combustion engine technology, and on the other hand, it will accelerate its work on new solutions for alternative drive systems. In 2016, MAHLE will thereby pursue its successful strategy of positioning its product portfolio toward becoming less dependent on the combustion engine. As one of the pioneers in battery cooling, the group entered into a number of promising partnerships with vehicle manufacturers in this field in the last months of 2015. Many promising new approaches are also currently arising in fuel cell vehicles.

With its latest takeovers in the year under report, MAHLE has consistently pushed ahead with its strategy of opening up new business segments and markets through acquisitions. The comprehensive integration of these activities into the MAHLE Group will also be a main focal point in the 2016 business year. At the same time, this should help to leverage the potential arising from the newly acquired expertise. During the period under report, innovations such as the integrated cooling system (iCAS) have impressively demonstrated that the MAHLE Group has benefited greatly from the knowledge gained through past acquisitions.

In 2015, MAHLE became the second largest thermal management supplier in the global vehicle market. The product range was extended to include air conditioning compressors, which play a central role in the optimization of efficient air conditioning systems. MAHLE is now able to offer complete air conditioning systems and has thus laid the foundation for further growth.

Mechatronics is one of the strategic business segments that the MAHLE Group intends to expand in 2016. Electrically driven auxiliary units, for example, can relieve the internal combustion engine, bringing about lower fuel consumption and thus lower emissions. This technology is also crucial to the further development of e-mobility. MAHLE deepened its commitment to mechatronics by concentrating its activities in a new division at the beginning of 2016, thus making optimum use of both synergies and potential.

MAHLE will continue to scrutinize the economic efficiency of divisions, locations, and processes in the future too. The optimization measures already introduced will be maintained accordingly. In view of current market developments, necessary restructuring measures are being investigated at various locations. Additionally, the MAHLE Group is considering the sale of its Industrial Filtration profit center. In all of these cases, the overall objective is to ensure long-term competitiveness.

MAHLE will therefore also proceed with its course of further internationalization. The strategic goal is to achieve a balanced regional sales distribution between the core markets of Europe, North and South America, and Asia/Pacific. The new plants in China will therefore further strengthen our presence in this growth market.

A healthy balance sheet structure and moderate net gearing are given a high priority at MAHLE in order to ensure the ongoing financial independence of the company. MAHLE achieves this with a solid equity base as well as by securing liquidity for the long term by means of diversified funding sources and financial instruments.

This report contains forward-looking statements that rely on current estimates of future developments. Such statements are subject to risks and uncertainties that are beyond MAHLE's control or which cannot be precisely estimated by MAHLE, and which may cause the actual facts and figures to deviate from these statements.

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CONSOLIDATED BALANCE SHEET

CONSOLIDATED BALANCE SHEET AS AT DECEMBER 31, 2015

in EUR '000		Dec. 31, 2015	Dec. 31, 2014
ASSETS			
A.	**Fixed assets**		
I.	**Intangible assets**		
	1. Purchased concessions, industrial and similar rights and assets, and licences in such rights and assets	416,261	392,283
	2. Goodwill	354,274	111,937
	3. Prepayments	905	779
		771,440	**504,999**
II.	**Property, plant, and equipment**		
	1. Land, leasehold rights, and buildings including buildings on third-party land	968,325	855,311
	2. Technical equipment and machinery	1,402,767	1,120,325
	3. Other equipment, fixtures, and furniture	127,990	116,314
	4. Prepayments and assets under construction	389,289	354,224
		2,888,371	**2,446,174**
III.	**Financial assets**		
	1. Shares in affiliated companies	10,600	7,217
	2. Shares in associated companies	99,619	137,101
	3. Equity investments	21,311	5,714
	4. Loans to companies in which participations are held	1,486	1,651
	5. Long-term securities	5,396	5,775
	6. Other loans	13,929	13,011
		152,341	**170,469**
		3,812,152	**3,121,642**
B.	**Current assets**		
I.	**Inventories**		
	1. Raw materials, consumables, and supplies	472,999	380,009
	2. Work in process	201,208	196,598
	3. Finished goods and merchandise	625,001	548,469
	4. Prepayments	19,721	19,342
	5. Prepayments received	–76,603	–46,991
		1,242,326	**1,097,427**
II.	**Receivables and other assets**		
	1. Trade receivables	1,806,637	1,494,820
	2. Receivables from affiliated companies	2,151	8,170
	3. Receivables from companies in which investments are held	24,167	18,105
	4. Other assets	406,621	264,331
		2,239,576	**1,785,426**
III.	**Securities**	**403**	**594**
IV.	**Cash in hand, bank balances, and cheques**	**309,625**	**526,357**
		3,791,930	**3,409,804**
C.	**Prepaid expenses**	**23,249**	**17,298**
D.	**Deferred tax assets**	**165,935**	**170,537**
E.	**Excess of plan assets over post-employment benefit liability**	**55,525**	**39,087**
		7,848,791	**6,758,368**

in EUR '000		**Dec. 31, 2015**	**Dec. 31, 2014**
EQUITY AND LIABILITIES			
A.	**Equity**		
I.	**Subscribed capital**	150,000	150,000
II.	**Capital reserves**	166,430	166,430
III.	**Revenue reserves**	1,811,594	1,741,723
IV.	**Equity impact from currency translation**	–60,747	–92,943
V.	**Unappropriated retained earnings**	6,015	8,570
VI.	**Minority interests**	593,998	581,014
		2,667,290	**2,554,794**
B.	**Badwill**	**1,877**	**–**
C.	**Accruals**		
	1. Accruals for pensions and similar obligations	543,962	503,179
	2. Accruals for taxes	60,757	56,729
	3. Other accruals	1,352,120	1,111,505
		1,956,839	**1,671,413**
D.	**Liabilities**		
	1. Bonds	829,000	329,000
	2. Liabilities to banks	887,312	898,201
	3. Payments received on account of orders	3,832	4,457
	4. Trade payables	1,096,510	888,030
	5. Liabilities on bills accepted and drawn	37,831	31,830
	6. Liabilities to affiliated companies	4,287	9,729
	7. Liabilities to companies in which investments are held	7,101	9,592
	8. Other liabilities	271,628	258,667
	thereof from taxes: 90,724 (prev. yr.: 79,299)		
	thereof relating to social security and similar obligations: 32,225 (prev. yr.: 30,382)		
		3,137,501	**2,429,506**
E.	**Deferred Income**	**85,284**	**102,655**
		7,848,791	**6,758,368**

CONSOLIDATED INCOME STATEMENT

CONSOLIDATED INCOME STATEMENT FROM JANUARY 1 TO DECEMBER 31, 2015

in EUR '000		2015	2014
1.	**Sales**	**11,486,133**	**9,942,388**
2.	Cost of sales	–9,334,928	–8,036,711
3.	**Gross profit on sales**	**2,151,205**	**1,905,677**
4.	Selling expenses	–553,321	–513,914
5.	General administrative expenses	–466,801	–427,140
6.	Research and development expenses	–656,953	–552,316
7.	Other operating income	414,713	308,632
	thereof from currency translation: 210,426 (prev. yr.: 92,957)		
8.	Other operating expenses	–377,115	–206,407
	thereof from currency translation: –217,963 (prev. yr.: –95,591)		
		–1,639,477	–1,391,145
		511,728	**514,532**
9.	Investment income	240	23
10.	Income from other securities and long-term loans	49	744
11.	Result from associated companies	–70,663	–23,539
12.	Other interest and similar income	18,763	36,788
	thereof from affiliated companies: 110 (prev. yr.: 177)		
	thereof income from discounting: 999 (prev. yr.: 1,065)		
13.	Impairment of financial assets and of securities	–9,091	–6,930
14.	Expenses from the transfer of losses	–1,905	–5,256
15.	Interest and similar expenses	–140,246	–115,361
	thereof to affiliated companies: –204 (prev. yr.: –13)		
	thereof expenses from discounting: –46,931 (prev. yr.: –46,374)		
		–202,853	–113,531
16.	**Result from ordinary activities**	**308,875**	**401,001**
17.	Taxes on income	–155,842	–92,555
	thereof income from deferred income taxes: 8,262 (prev. yr.: 30,825)		
18.	Other taxes	–30,627	–29,287
19.	**Net income**	**122,406**	**279,159**
20.	Unappropriated retained earnings prior year	8,570	7,162
21.	Dividend distribution	–8,500	–7,100
22.	Transfer to revenue reserves	–66,394	–204,975
23.	Profit applicable to minority shareholders	–118,176	–103,191
24.	Loss applicable to minority shareholders	68,109	37,515
25.	**Unappropriated retained earnings**	**6,015**	**8,570**

CONSOLIDATED CASH FLOW STATEMENT

CONSOLIDATED CASH FLOW STATEMENT FROM JANUARY 1 TO DECEMBER 31, 2015

in EUR '000		**2015**
	Profit for the period (consolidated net income/net loss for the financial year including minority interests)	122,406
+/–	Depreciation, amortisation and write-downs of fixed assets/reversals of write-downs of fixed assets	589,877
+/–	Increase/decrease in provisions	60,965
+/–	Other non-cash expenses/income	–26,165
–/+	Increase/decrease of inventories, trade receivables and other assets not related to investing or financing activities	–222,671
+/–	Increase/decrease of trade payables and other liabilities not related to investing or financing activities	–40,208
–/+	Gain/loss on disposals of fixed assets	–15,506
+/–	Interest expense/interest income	121,465
–	Other investment income	70,422
+/–	Interest payments/receipts related to interest other than the provision of capital	–7,540
+/–	Income tax expense/income	164,104
–/+	Income taxes paid	–179,099
1.	**Cash flow from operating activities**	**638,050**
+	Proceeds from disposal of intangible fixed assets	319
–	Payments to acquire intangible fixed assets	–19,105
+	Proceeds from disposal of tangible fixed assets	18,874
–	Payments to acquire tangible fixed assets	–564,452
+	Proceeds from disposal of long-term financial assets	51,230
–	Payments to acquire long-term financial assets	–78,416
–	Payments to acquire entities included in the basis of consolidation	–539,045
+	Cash receipts from the investment of cash funds for short-term cash management	133,594
–	Cash payments for the investment of cash funds for short-term cash management	–248,684
+	Interest received	14,336
+	Dividends received	7,573
2.	**Cash flow from investing activities**	**–1,223,776**

	in EUR '000	**2015**
+	Proceeds from capital contributions by minority shareholders	2,774
+	Proceeds from the issuance of bonds and from borrowings	790,792
–	Cash repayments of bonds and borrowings	–368,767
+	Proceeds from grants/subsidies received	2,991
–	Interest payment due to leasing agreements	–15
–	Interest paid	–61,299
–	Dividends paid to shareholders of the parent entity	–8,500
–	Dividends paid to minority shareholders	–22,107
3.	**Cash flow from financing activities**	**335,869**
	Net change in cash funds (subtotals 1—3)	–249,857
+/–	Effect on cash funds of exchange rate movements and remeasurements	–46,451
+/–	Effect on cash funds of changes in the basis of consolidations	6,640
+	Cash funds at beginning of period	420,953
4.	**Cash funds at end of period**	**131,285**
	Cash-in-hand, bank balances and checks	526,357
–	Bank balances with an initial term of more than 3 months	–20,967
+	Liabilities to banks with an initial term of less than 3 months	–84,437
	Cash funds at beginning of period	**420,953**
	Cash-in-hand, bank balances and checks	309,625
–	Bank balances with an initial term of more than 3 months	–10,077
+	Liabilities to banks with an initial term of less than 3 months	–168,263
	Cash funds at end of period	**131,285**

The short term liabilities which were netted against cash balances contained EUR 62,036k which were related to short term liabilities based on a committed credit line with a remaining tenor of more than one year.

The regulations of GAS 21 were applied for the first time in the presentation of the cash flow statement.

The option to dispense with the prior-year figures was applied in accordance with the regulations of GAS 21.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY FROM JANUARY 1 TO DECEMBER 31, 2015

	Parent company				
				Accumulated other comprehensive income	
in EUR '000	Subscribed capital	Capital reserves	Earned equity	Currency translation/ exchange differences	Other items
As at January 1, 2014	**150,000**	**166,430**	**1,383,206**	**–171,994**	**161,304**
Dividend distribution	0	0	–7,100	0	0
Changes in the consolidation group	0	0	0	0	0
Consolidated net income for the year	*0*	*0*	*213,483*	*0*	*0*
Other comprehensive income	*0*	*0*	*38*	*79,051*	*–638*
Total comprehensive income	0	0	213,521	79,051	–638
As at December 31, 2014	**150,000**	**166,430**	**1,589,627**	**–92,943**	**160,666**
Dividend distribution	0	0	–8,500	0	0
Changes in the consolidation group	0	0	0	0	0
Consolidated net income for the year	*0*	*0*	*72,339*	*0*	*0*
Other comprehensive income	*0*	*0*	*–222*	*32,196*	*3,699*
Total comprehensive income	0	0	72,117	32,196	3,699
As at December 31, 2015	**150,000**	**166,430**	**1,653,244**	**–60,747**	**164,365**

		Minority interests			
			Accumulated other comprehensive income		
	Equity	Capital and earned equity	Currency translation/ exchange differences	Other items	Group equity
	1,688,946	**533,037**	**–23,605**	**9,112**	**2,207,490**
	–7,100	–35,121	0	0	–42,221
	0	12,034	0	0	12,034
	213,483	*65,676*	*0*	*0*	*279,159*
	78,451	*114*	*19,767*	*0*	*98,332*
	291,934	65,790	19,767	0	377,491
	1,973,780	**575,740**	**–3,838**	**9,112**	**2,554,794**
	–8,500	–24,769	0	0	–33,269
	0	–5,705	0	0	–5,705
	72,339	*50,067*	*0*	*0*	*122,406*
	35,673	*–93*	*–11,752*	*5,236*	*29,064*
	108,012	49,974	–11,752	5,236	151,470
	2,073,292	**595,240**	**–15,590**	**14,348**	**2,667,290**

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

CONSOLIDATION GROUP

The consolidated financial statements include MAHLE GmbH, Stuttgart/Germany (parent company), 27 domestic and 145 foreign subsidiaries. Furthermore, 40 companies are proportionately consolidated and seven companies were valued according to the equity method. The consolidated companies are included in the list of shareholdings.

In the 2015 business year, the following companies were consolidated for the first time:

- MAHLE Amovis GmbH, as at January 1
- Delphi Thermal Group, as at June 30
- MAHLE Electric Drives Japan Corporation (formerly: Kokusan Denki Co. Ltd.), Numazu shi/Japan, as at June 30
- Kokusan MAHLE Siam Co., Ltd., Samut Prakan/Thailand, as at June 30
- PT. MAHLE Filter Systems Indonesia, Jawa Barat/Indonesia, as at July 1

With the first consolidation of the Delphi Thermal Group as at June 30, 2015, 18 companies were fully consolidated. For a detailed overview, please refer to the list of shareholdings.

In the business year, four companies were merged with other group companies.

One associated company was sold in the business year.

In the business year, 17 companies were not included in the consolidated financial statements on account of their immateriality.

Nine companies were not valued according to the equity method due to their immateriality.

KEY CHANGES TO THE CONSOLIDATION GROUP

The composition of the companies included in the consolidated financial statements changed substantially as a result of the first consolidation of the former Delphi Thermal entities. The acquisition included 13 production sites in Europe, North- and South America and Asia as well as three major research and development centers in the US and Luxembourg.

Furthermore, the former Kokusan Denki entities (now trading as MAHLE Electric Drives Japan) were consolidated for the first time in the business year. Until June 30, 2015, the shares in MAHLE Electric Drives Japan were valued according to the equity method (38.87 percent). As of June 30, 2015, MAHLE Japan Ltd. acquired the majority of the shares in MAHLE Electric Drives Japan (89.60 percent) and thus achieved a controlling influence. In the course of the second half of the year, the shareholding increased to 100.00 percent.

With the first consolidation of MAHLE Electric Drives Japan, the assets, liabilities, and deferred income transferred to the consolidated financial statements were revalued and/or recorded as part of the purchase price allocation. The customer relationships, as well as technologies acquired were also recognized in the consolidated balance sheet.

In addition to the two acquisitions mentioned, the Amovis GmbH, located in Berlin, was integrated in the group at the beginning of the business year.

As the adjustment of the previous year's figures to the new consolidation group would involve a disproportionate effort, the information below is provided to make the consolidated financial statements of the current year comparable with the previous year's statements.

CONSOLIDATED BALANCE SHEET

in EUR '000	**Dec. 31, 2015**	**Dec. 31, 2015**	**Dec. 31, 2014**
	MAHLE Group	*MAHLE Group without companies consolidated for the first time*	*MAHLE Group*
Intangible assets	771,440	411,098	504,999
Property, plant, and equipment	2,888,371	2,611,881	2,446,174
Financial assets	152,341	543,539	170,469
Inventories	1,242,326	1,120,822	1,097,427
Receivables and other assets	2,239,576	2,299,206	1,785,426
Securities	403	403	594
Cash-in-hand, bank balances, and cheques	309,625	293,534	526,357
Prepaid expenses	23,249	22,040	17,298
Deferred tax assets	165,935	168,810	170,537
Excess of plan assets over post-employment benefit liability	55,525	44,794	39,087
Equity	2,667,290	2,741,012	2,554,794
Badwill	1,877	0	0
Accruals	1,956,839	1,802,057	1,671,413
Liabilities	3,137,501	2,888,774	2,429,506
Deferred income	85,284	84,284	102,655
Equity ratio	34.0%	36.5%	37.8%

CONSOLIDATED INCOME STATEMENT

in EUR '000	**2015**	**2015**	**2014**
	MAHLE Group	*MAHLE Group without companies consolidated for the first time*	*MAHLE Group*
Sales	11,486,133	10,949,983	9,942,388
Cost of sales	–9,334,928	–8,827,759	–8,036,711
Selling expenses	–553,321	–543,428	–513,914
General administrative expenses	–466,801	–442,345	–427,140
Research and development expenses	–656,953	–614,022	–552,316
Other operating income and expenses	37,598	73,549	102,225
Financial result	–202,853	–194,680	–113,531
Result from ordinary activities	**308,875**	**401,298**	**401,001**
Taxes on income	–155,842	–172,402	–92,555
Other taxes	–30,627	–29,807	–29,287
Net income	**122,406**	**199,089**	**279,159**

Further effects from the first consolidation of the former Delphi Thermal entities and MAHLE Electric Drives Japan can be found in the consolidated statement of fixed assets as well as the consolidated statement of changes in equity.

EXEMPTION PROVISIONS FOR DOMESTIC COMPANIES

The following subsidiaries are applying the exemption according to Sec. 264, Para. 3, respectively Sec. 264b of the German Commercial Code (HGB), with regard to the disclosure of their annual financial statements and/or the preparation of the management reports:

MAHLE Aftermarket GmbH, Stuttgart; MAHLE Amovis GmbH, Berlin; MAHLE Beteiligungen GmbH, Stuttgart; MAHLE Filtersysteme GmbH, Stuttgart; MAHLE Immobilien GmbH, Stuttgart; MAHLE Industrial Thermal Systems GmbH & Co. KG, Stuttgart; MAHLE Industriebeteiligungen GmbH, Stuttgart; MAHLE Industriefiltration GmbH, Stuttgart; MAHLE Industriemotoren-Komponenten GmbH, Stuttgart; MAHLE Industry GmbH, Stuttgart; MAHLE International GmbH, Stuttgart; MAHLE Kleinmotoren-Komponenten GmbH & Co. KG, Stuttgart; MAHLE Motorkomponenten GmbH, Plettenberg; MAHLE Powertrain GmbH, Stuttgart; MAHLE Ventiltrieb Brandenburg GmbH, Wustermark; MAHLE Ventiltrieb GmbH, Stuttgart; MAHLE Versicherungsvermittlung GmbH, Stuttgart

METHOD OF CONSOLIDATION

Subsidiaries that were fully consolidated until December 31, 2009, were consolidated using the book value method as in prior years. After this date, the value of the participation of the parent company at the time of first consolidation, which takes place at the time the participation was acquired, is to be offset against the proportionate share of the book value of the equity of the subsidiary. In the case of companies that were consolidated for the first time from 2010 onward, the assets, liabilities, as well as prepaid expenses and deferred income acquired were revalued as part of the purchase price allocation at the time that the company became a subsidiary. Goodwill is normally amortized over ten years, as the markets that are relevant to the MAHLE Group are dominated by a small number of suppliers as well as high barriers to market entry and have historically shown that the average useful life of acquired goodwill is ten years.

So far, goodwill related to indirect minority interests was offset against the minority interests. In order to provide a better true and fair view of the net assets, acquisitions in 2015 have been treated using the full presentation of goodwill secured by cash outflows without offsetting against minority interests.

Impairments in the business year totaled EUR 420k.

The capital consolidation of the recently acquired thermal management activities of Delphi led to a goodwill of EUR 268,002k.

The first consolidation of Amovis GmbH resulted in a goodwill of EUR 1,863k.

The transition from the equity method to the full consolidation of MAHLE Electric Drives Japan as at June 30, 2015 resulted in a badwill of EUR 1,760k being released over the weighted average useful life of the identified intangible assets.

LangFang Kokusan Electric Co., Ltd. was consolidated according to the equity method for the first time on June 30, 2015.

The intra-group supply of goods and services as well as mutual receivables and liabilities were offset and intercompany profits were eliminated.

Deferred taxes resulting from consolidation measures with effect on income were recorded using a tax rate of 24.00 percent.

ACCOUNTING AND VALUATION PRINCIPLES

The existing methods were retained with the exception of the valuation of pension accruals and were also used by the associated companies.

Acquired intangible assets and property, plant, and equipment are valued at acquisition costs or cost of sales minus depreciation and amortization. Depreciation was performed on a straight-line basis using standard useful lives. If lower valuations were provided, impairments were carried out. Internally developed trademarks and similar rights and values were not capitalized.

Financial assets were stated at the lower of acquisition cost or fair value, if the impairment is expected to be permanent.

Inventories are capitalized at acquisition costs or cost of sales. Unfinished and finished goods are valued taking into account the appropriate share of material and production overheads and depreciation of fixed assets. If the market prices or fair values were lower than the book values, or marketability was limited, devaluations were performed to the extent necessary.

Receivables and other assets are recorded at nominal value. Appropriate write-downs are recorded to account for receivables with recognizable risks of nonpayment; a general valuation allowance is set up to cover the general credit risk.

Accruals for taxes and other accruals adequately cover uncertain liabilities and anticipated losses from pending transactions. Valuation is based on the settlement amount taking into account necessary cost increases. Accruals with a remaining term of more than one year were discounted by using the average market interest rate of the past seven fiscal years provided by the German Central Bank.

Accruals for pensions and similar obligations are calculated group-wide in accordance with actuarial principles (using the projected unit credit method) and discounted to present value. The MAHLE Group opts for the voluntary early adoption of the new regulation of discount rate computation for pension accruals according to Sec. 253 of the German Commercial Code (HGB). The calculation is based on the following discount rates: domestic 4.06–4.39 percent; foreign 1.30–7.45 percent. The option to assume a standardized remaining term of 15 years was not utilized. Expected salary increases of 1.50–5.86 percent and anticipated labor turnover rates of 2.45–4.86 percent were taken into consideration. The mortality tables recognized in each country were taken as the basis for the calculation.

Assets that serve exclusively to settle pension-related obligations and cannot be utilized to settle claims of any other creditors (plan assets in the form of long-term securities) were offset against the accruals at their fair value. Excess amounts are recorded within the position “Excess of plan assets over post-employment benefit liability”.

Liabilities are stated at their settlement amount.

Receivables, bank balances, and liabilities in foreign currency with a remaining term of less than one year were valued using the mid spot rate applicable at the balance sheet date. If the remaining term was more than one year, the valuation was based on the exchange rate applicable as of the acquisition date or the lower or higher exchange rate at the balance sheet date.

Changes in exchange rates and interest rates represent a risk to operational business that is very difficult to estimate. To minimize this risk, appropriate hedging transactions such as derivatives are therefore used. These transactions are only concluded with banks that have a prime credit rating. Their use is based on standard guidelines, subject to strict internal controls, and restricted to the hedging of operational business as well as that of related investments and financing activities.

If effective hedging relationships existed between the underlying operating transactions or highly probable transactions and the hedging transaction, they were included in hedge accounting evaluation units under the "frozen value method" ("Einfrierungsmethode").

Deferred tax assets and liabilities are set up to account for all temporary and quasi-permanent differences between the tax and balance sheet values. Furthermore, deferred taxes for tax loss and interest carried forward and tax credits were capitalized, provided the tax benefit was reasonably recoverable within the next five years. Deferred taxes were determined using tax rates that are expected to apply at the time of recovery and are based on the regulations adopted at the balance sheet date. Deferred tax assets and liabilities are presented as a net value. The tax rates fall within a range of 10.00–37.18 percent.

CURRENCY CONVERSION

The financial statements of the foreign companies were—if not prepared in euro—converted as follows:

Equity:
Exchange rate at date of acquisition (or first consolidation)

Other balance sheet items:
Mid spot rate at the balance sheet date

Income statement items:
Average exchange rate for the year

Exchange rate differences in connection with the use of the closing rate method were shown as "currency translation Jan 01." Differences arising from the conversion of movements during the current year were shown in a separate column in the asset schedule.

Any difference arising from the differentiated translation of the balance sheet items into euro was included under "Equity impact from currency translation" in the consolidated shareholders' equity.

The "thereof" information on currency conversion in the income statement includes both unrealized and realized exchange rate differences.

NOTES TO THE CONSOLIDATED BALANCE SHEET

RECEIVABLES AND OTHER ASSETS

in EUR '000	**Carrying amount Dec. 31, 2015**	**Thereof with a remaining term of more than one year**
Accounts receivables		
Trade receivables	*1,806,637*	*192*
Receivables from affiliated companies	*2,151*	*0*
Receivables from companies in which investments are held	*24,167*	*0*
Other assets	406,621	5,627
Total	**2,239,576**	**5,819**

In the previous year, trade receivables (EUR 34k), as well as other assets (EUR 14,721k), had a remaining term of more than one year.

Trade receivables are included in the amount of EUR 366k (previous year: EUR 353k) from affiliated companies and EUR 10,711k (previous year: EUR 9,443k) from companies in which investments are held.

Other assets contain receivables from shareholders amounting to EUR 64k (previous year: EUR 9k). Prepaid expenses include, among others, the differences between net loan proceeds and liabilities to banks (debt discounts) amounting to EUR 2,079k (previous year: EUR 755k).

EQUITY

The group's unappropriated retained earnings equal that of the parent company and contain the amount carried forward from the previous year of EUR 70k.

ACCRUALS FOR PENSIONS AND SIMILAR OBLIGATIONS AS WELL AS OTHER ACCRUALS

Notes for offsetting pursuant to Sec. 246, Para. 2, Sentence 2 of the German Commercial Code (HGB)

in EUR '000	**Carrying amount Dec. 31, 2015**
Settlement amount of offset liabilities	478,289
Acquistion costs of assets	248,138
Fair value of assets	354,415
Offset income	6,899
Offset expenses	19,894

Other accruals primarily relate to anticipated losses from pending transactions, outstanding credit notes and rebates, as well as outstanding purchase invoices. In addition, this item includes obligations arising from employment contracts as well as guarantee and warranty risks.

LIABILITIES

in EUR '000	**Carrying amount Dec. 31, 2015**	**Thereof with a remaining term of up to 1 year**	**Thereof with a remaining term between 1 and 5 years**	**Thereof with a remaining term of more than 5 years**
Bonds	829,000	0	29,000	800,000
Liabilities to banks	887,312	353,089	359,324	174,899
Payments received on account of orders	3,832	3,825	7	0
Trade payables	1,096,510	1,095,405	1,105	0
Liabilities on bills accepted and drawn	37,831	37,831	0	0
Liabilities				
to affiliated companies	*4,287*	*4,287*	*0*	*0*
to companies in which investments are held	*7,101*	*7,101*	*0*	*0*
Other liabilities	271,628	230,215	22,720	18,693
Total	**3,137,501**	**1,731,753**	**412,156**	**993,592**

In the previous year, liabilities to banks (EUR 254,370k), payments received on account of orders (EUR 4,450k), trade payables (EUR 887,610k), liabilities on bills accepted and drawn (EUR 31,830k), liabilities to affiliated companies (EUR 9,729k), liabilities to companies in which investments are held (EUR 9,592k), and other liabilities (EUR 205,399k) had a remaining term of less than one year.

The liabilities to affiliated companies contain EUR 1,688k (previous year: EUR 85k) trade payables as well as EUR 121k payables related to cash-pooling. The liabilities to companies in which investments are held contain EUR 1,726k (previous year: EUR 1,667k) trade payables as well as EUR 6,833k payables related to cash-pooling.

Other liabilities do not contain any payables to shareholders (previous year: EUR 0k).

Of the liabilities to banks, EUR 493k is secured by property liens and EUR 3,862k by similar rights.

DEFERRED TAXES

Deferred tax assets arise predominantly from differing accounting treatment in intangible assets, property, plant, and equipment, and accruals. The temporary differences in accruals essentially include differing carrying amounts between the tax balance sheet and the consolidated balance sheet for accruals for pensions and similar obligations, as well as accruals that are not tax-deductible, such as accruals for anticipated losses.

The deferred tax liabilities result predominantly from temporary differences relating to tangible fixed assets owing to differing carrying amounts and depreciation methods in the tax and consolidated balance sheets. In addition, the identified fair values disclosed as part of the purchase price allocations of the acquisitions lead to deferred tax liabilities in intangible assets and in tangible fixed assets.

Deferred tax assets of EUR 92,773k were set up on tax loss carried forwards of EUR 386,038k that are recoverable within five years. Deferred tax assets were written off by EUR 125,530k as at December 31, 2015, as their realization is not deemed sufficiently likely.

OFF-BALANCE-SHEET TRANSACTIONS

As at the balance sheet date, off-balance-sheet transactions exist in connection with significant rental and leasing agreements for buildings and land (EUR 152,738k). Moreover, off-balance-sheet transactions are in place in connection with factoring (EUR 146,213k). These off-balance-sheet transactions led to a strengthening of the liquidity situation as well as the diversification of financing sources as at the balance sheet date. The cash outflow arising from these transactions will mostly be postponed into the future. No material risks are anticipated from these transactions.

CONTINGENT LIABILITIES

in EUR '000	**Carrying amount Dec. 31, 2015**
Contingents from notes	11,836
Warranties	1,160
thereof to affiliated companies	*600*

To our knowledge, the underlying obligations can be fulfilled in all cases by the companies concerned. We do not expect the contingent liabilities to be claimed.

OTHER FINANCIAL OBLIGATIONS

in EUR '000	**Carrying amount Dec. 31, 2015**
Purchase commitments from investments	227,215
Financial obligations resulting from rent and lease agreements	53,955
Others	34,457

NOTES TO THE CONSOLIDATED INCOME STATEMENT

The income statement of the MAHLE Group has been prepared according to the cost of sales method. Sales are thus set against the expenses incurred in their realization, which is allocated in principle to the functions production, sales, general administration, and research and development.

The cost of sales comprises the material and production costs incurred in the realization of sales, the landed costs of the trade business, and the costs of the allocation to accruals for warranties. Furthermore, this item also contains depreciation and amortization on the hidden reserves disclosed as part of the purchase price allocations of the acquisitions. These include technologies, technical equipment and machinery as well as land and buildings.

The selling expenses include, in particular, personnel and non-personnel expenses, depreciation allocated to the sales function, as well as logistics, market research, sales promotion, shipping and handling, and advertising costs. Furthermore, it also contains amortization on the hidden reserves disclosed as part of the purchase price allocations of the acquisitions. These include trademark rights and customer relationships.

The general administration expenses include personnel and non-personnel expenses as well as depreciation allocated to the administrative function.

The personnel and non-personnel expenses and depreciation allocated to the research and development functions are substantial to the MAHLE Group. In order to present the economic status of the group more clearly, they have been included as separate items in the breakdown.

Other operating income contains EUR 86,600k income relating to other periods. This income is mainly related to the reversal of accruals.

Other operating expenses contain EUR 3,861k expenses relating to other periods. This expense is mainly related to disposals of depreciable fixed assets.

SALES BY AREA OF OPERATION

in EUR '000	**2015**
Engine Systems and Components business unit	2,698,089
Filtration and Engine Peripherals business unit	2,196,047
Thermal Management business unit	3,761,205
Aftermarket business unit	834,580
Profit centers, divisions and services	1,996,212
Total	**11,486,133**

SALES BY GEOGRAPHICAL MARKET (TARGET AREA)

in EUR '000	**2015**
Europe	5,617,301
North America	2,938,882
South America	605,894
Asia/Pacific	2,235,338
Africa	88,718
Total	**11,486,133**

PERSONNEL EXPENSES

in EUR '000	**2015**
Total	**2,733,606**

DEPRECIATION, AMORTIZATION, AND IMPAIRMENTS OF INTANGIBLE AND TANGIBLE FIXED ASSETS

in EUR '000	**2015**
Total	**580,881**
thereof impairments	*1,467*

SUBSEQUENT VALUATION OF THE PURCHASE PRICE ALLOCATION WITHIN THE ACQUISITIONS[1)]

in EUR '000	**2015**
Depreciation and amortization within cost of sales	93,239
Amortization within selling expenses	29,071
Release of subsidies within other operating income	20,450

[1)] relating to MAHLE Behr, MAHLE Letrika, former Delphi Thermal entities and MAHLE Electric Drives Japan

EFFECTS FROM THE VOLUNTARY EARLY ADOPTION OF THE NEW REGULATION OF DISCOUNT RATE COMPUTATION FOR PENSION ACCRUALS ACCORDING TO SEC. 253 OF THE GERMAN COMMERCIAL CODE (HGB)

in EUR '000	**2015**
Interest result	41,474
Expenses from deferred income taxes	–4,019
Effect on net income	**37,455**

OTHER NOTES

AVERAGE ANNUAL NUMBER OF EMPLOYEES[1)]

	2015
Direct employees	37,461
Indirect employees	33,259
Total	**70,720**

[1)] excluding apprentices

The total average annual number of employees includes a pro rata figure of 2,141 employees from proportionately consolidated companies.

DERIVATIVES

Derivatives in accordance with Secs. 285, 314 of the German Commercial Code (HGB) not yet settled as at the balance sheet date can be broken down as follows:

in EUR '000	**Nominal amounts Dec. 31, 2015**	**Fair value Dec. 31, 2015[1)]**
Transactions relating to interest	149,204	–1,687
Transactions relating to currency	1,556,521	–20,529
Transactions relating to currency and interest	19,692	212
Transactions relating to commodities	18,042	–2,524

[1)] The fair value of currency- and commodities-related transactions corresponds to the market value of the derivatives as at the balance sheet date, which is identified in accordance with the net present value method. All interest-related transactions are based on recognized financial/mathematical models.

The derivative contracts as at December 31, 2015, are placed exclusively with banks. Evaluation units were established for hedging transactions with an effective relationship to the underlying transaction. Accruals of EUR 2,830k were set up for all other hedging transactions that have resulted in anticipated losses.

EVALUATION UNITS

The following evaluation units were created from derivatives:

in EUR '000	**Type of evaluation unit**	**Amount of hedged transaction 2015**	**Balance sheet item**
Currency exposure			
Recorded values	Portfolio hedge	64,409	Trade receivables
	Portfolio hedge	5,684	Bank balances
	Portfolio hedge	–1,758	Liabilities to banks
	Portfolio hedge	–9,323	Trade payables
Remaining currency exposure from eliminated transactions with affiliated companies	Portfolio hedge	143,107	
Future transactions	Portfolio hedge	103,929	
Currency and interest exposure (cross currency swap)			
Recorded values	Micro hedge	–9,984	Liabilities to banks
Remaining currency exposure from eliminated transactions with affiliated companies	Micro hedge	9,708	
Interest exposure			
Recorded values	Micro hedge	–143,654	Liabilities to banks
Remaining currency exposure from eliminated transactions with affiliated companies	Micro hedge	0	
Commodity exposure			
Future transactions	Portfolio hedge	17,210	

	Volume of hedged exposure 2015
Currency exposure in transaction currency	*in '000*
AUD	–1,050
CAD	36,761
EUR	11,947
GBP	953
JPY	20,807,839
MXN	68,276
PHP	89,765
RON	19,240
RUB	–1,214,300
THB	–180,684
TRY	26,931
USD	–543,662
Currency and interest exposure in transaction currency	*in '000*
CNY	–79,680
Interest: fixed CNY/variable 3-month-Euribor	
USD	2,098
Interest: fixed USD/fixed THB	
USD	8,771
Interest: fixed USD/variable CDI	
Interest exposure in transaction currency	*in '000*
EUR	139,000
Interest: fixed EUR/variable 6-month-Euribor	
IDR	70,000,000
Interest: fixed IDR/variable 3-month-IDR Jibor	
Commodity exposure in reporting currency EUR	*in '000*
Aluminum	8,375
Copper	4,242
Nickel	4,257
Tin	336

The changes in value in the underlying and hedging transactions are offset during the hedging horizon, since risk positions (underlying transactions recognized on the balance sheet) are immediately hedged by means of forward exchange transactions of the same amount, in the same currency, and with the same maturity period in accordance with the guidelines of the group risk management.

The risk of potential future changes in cash flows arising from highly probable underlying transactions is offset by using hedging transactions. The hedge ratio of such future transactions is reduced over time, the further such transactions are in the future. The hedging horizon for currency- and commodities-related hedging transactions which are included in hedge accounting relationships is generally two years and, in exceptional cases, can be extended up to three years for commodities hedging transactions. Past experience has shown that this strategy has led to an effective hedging of cash flows in forecast evaluation units.

The hedging quota of a planned exposure increases over its lifetime. When the planned exposure finally turns into a booked exposure it will have been hedged fully via consecutive individual hedging steps. At this stage the exposure is hedged via a portfolio of individual hedges which have been added gradually over time. At any given point in time a number of individual booked exposures can mature, each with their own portfolio of hedges covering the exposure. The entirety of several booked exposures with their respective hedges create a portfolio hedge.

Currency and interest rate hedging transactions (cross currency swaps) are entered into with the same maturity profile as the respective underlying contracts and form a micro hedge with the corresponding financial liability.

The “critical term match method” is used to measure the effectiveness of the hedging relationship.

REMUNERATION OF THE MEMBERS OF THE MANAGEMENT BOARD OF MAHLE GMBH[1)]

in EUR '000	**2015**
Supervisory Board	292
Management Board	12,651

[1)] parent company

The total remuneration of the Management Board comprises fixed and variable components. The fixed portions for the 2015 business year came to EUR 2,802k, and the variable compensation for 2015 to EUR 9,833k. The remuneration shown also includes an adjustment for the previous year. The fixed portions include benefits in kind, which consist primarily of the noncash benefits of having company cars.

Remunerations paid to former members of the Management Board and their descendants totaled EUR 1,745k.

An amount of EUR 24,242k is set aside for this group of persons in the pension accruals as at December 31, 2015.

AUDITOR'S FEE

The total fee for the business year charged by PricewaterhouseCoopers AG, the group auditor, pursuant to Sec. 314, Para. 1, No. 9 of the German Commercial Code (HGB), consists of the following:

in EUR '000	**2015**
Services for audit of financial statements	942
Other assurance services	199
Tax advisory services	552
Other services	828
Total	**2,521**

Stuttgart/Germany, March 17, 2016

The Management Board of MAHLE GmbH

Wolf-Henning Scheider

Wilhelm Emperhoff

Arnd Franz

Michael Frick

Michael Glowatzki

Rudolf Paulik

Jörg Stratmann

CONSOLIDATED STATEMENT OF FIXED ASSETS

CONSOLIDATED STATEMENT OF FIXED ASSETS FROM JANUARY 1 TO DECEMBER 31, 2015

in EUR '000		Acquisition/ manufacturing costs Dec 31, 2014	Currency translation Jan 01, 2015	Business year 2015 Changes at the Group	Additions	Disposals
I.	**Intangible assets**					
	1. Purchased concessions, industrial and similar rights and assets, and licences in such rights and assets	625,986	–2,951	120,979	18,864	7,680
	2. Goodwill	489,622	–	269,864	16,387	63,992
	3. Prepayments	780	–9	–	241	–
		1,116,388	**–2,960**	**390,843**	**35,492**	**71,672**
II.	**Property, plant, and equipment**					
	1. Land, leasehold rights, and buildings including buildings on third-party land	1,426,473	24,966	69,393	36,402	8,807
	2. Technical equipment and machinery	4,390,378	–4,004	183,930	165,275	129,258
	3. Other equipment, fixtures, and furniture	385,867	–253	4,552	36,674	26,213
	4. Prepayments and assets under construction	356,599	10,353	44,164	326,101	2,393
		6,559,317	**31,062**	**302,039**	**564,452**	**166,671**
III.	**Financial assets**					
	1. Shares in affiliated companies	26,833	–3,315	5,062	963	179
	2. Shares in associated companies	140,517	–6	968	75,293	112,959[1)]
	3. Equity investments	5,714	360	14,645	562	331
	4. Loans to companies in which participations are held	1,651	–	–	–	165
	5. Long-term securities	7,613	8	–	70	1
	6. Other loans	12,945	429	484	1,349	1,624
		195,273	**–2,524**	**21,159**	**78,237**	**115,259**
		7,870,978	**25,578**	**714,041**	**678,181**	**353,602**

[1)] Includes results from continuation of equity approach, disposal due to dividend payments as well as disposals due to selling.

[2)] Thereof shares in affiliated companies measured according to the equity method: EUR 379k.

	Business year 2015					
	Reclassifications	Currency translation of current year	Accumulated depreciation/ amortization	Write-ups of the business year	Net book values Dec 31, 2015	Depreciation/ amortization of the business year
	–1,998	–808	336,131	–	416,261	115,687
	–	–	357,607	–	354,274	43,914
	–105	–2	–	–	905	–
	–2,103	**–810**	**693,738**	**–**	**771,440**	**159,601**
	53,347	–1,933	631,530	14	968,325	55,051
	280,928	–5,128	3,479,354	–	1,402,767	321,756
	10,634	–190	283,133	52	127,990	44,450
	–342,806	–440	2,289	–	389,289	23
	2,103	**–7,691**	**4,396,306**	**66**	**2,888,371**	**421,280**
	233	116	19,113	–	10,600	3,003
	–233	4,991	8,952	–	99,619 [2)]	5,537
	–	361	–	–	21,311	–
	–	–	–	–	1,486	–
	–20	–	2,274	–	5,396	434
	20	297	–	29	13,929	117
	–	**5,765**	**30,339**	**29**	**152,341**	**9,091**
	–	**–2,736**	**5,120,383**	**95**	**3,812,152**	**589,972**

SHAREHOLDINGS
AS AT DECEMBER 31, 2015

Shareholdings in companies included in consolidation, associated companies, companies included in consolidation on a pro-rata basis and other companies in which shareholdings of at least 20% are held

Name and location	*Share in equity in %*	*Equity in EUR '000*	*Result of the last business year in EUR '000*
Parent company			
MAHLE GmbH, Stuttgart/Germany			
1. Fully consolidated subsidiaries			
a) Fully consolidated subsidiaries of MAHLE GmbH with direct shareholding quota			
Conso, LLC, Wilmington, Delaware/USA	100.00		
Kokusan MAHLE Siam Co., Ltd., Samut Prakan/Thailand	99.999		
MAHLE Aftermarket France SAS, Décines/France	100.00		
MAHLE Aftermarket GmbH, Stuttgart/Germany	100.00		
MAHLE Aftermarket Inc., Farmington Hills, Michigan/USA	100.00		
MAHLE Aftermarket Ltd., Bilston/Great Britain	100.00		
MAHLE Aftermarket Pte. Ltd., Singapore/Singapore	100.00		
MAHLE Aftermarket S. de R.L. de C.V., Lerma/Mexico	100.00		
MAHLE Aftermarket S.L., Alcalá de Henares/Spain	100.00		
MAHLE Aftermarket SAS, Poissy Cedex/France	100.00		
MAHLE Aftermarket, ULC, Burlington/Canada	100.00		
MAHLE Amovis GmbH, Berlin/Germany	100.00		
MAHLE Anéis Participações Ltda., Mogi Guaçu/Brazil	100.00		
MAHLE Behr GmbH & Co. KG, Stuttgart/Germany	50.71		
MAHLE Beteiligungen GmbH, Stuttgart/Germany	100.00		
MAHLE Componente de Motor SRL, Timisoara/Romania	100.00		
MAHLE Componentes de Motor de México, S. de R.L. de C.V., Ramos Arizpe/Mexico	100.00		
MAHLE Componentes de Motor España, S.L., Vilanova i la Geltrú/Spain	100.00		
MAHLE Componentes de Motores S.A., Murtede/Portugal	100.00		
MAHLE Componenti Motori Italia S.p.A., La Loggia/Italy	100.00		
MAHLE Composants Moteur France SAS, Chavanod/France	100.00		
MAHLE Compressores do Brasil Ltda., Jaguariúna/Brazil	100.00		
MAHLE Compressors Hungary Kft., Balassagyarmat/Hungary	100.00		
MAHLE Compressores Participacoes Brasil Ltda., Mogi Guaçu/Brazil	100.00		
MAHLE Compresores, S. de R.L. de C.V., Juarez Chihuahua/Mexico	100.00		
MAHLE Compressors (Suzhou) Co., Ltd., Suzhou/China	100.00		
MAHLE de México S. de R.L. de C.V., Ramos Arizpe/Mexico	100.00		
MAHLE Donghyun Filter Systems (Tianjin) Co., Ltd., Tianjin/China	100.00		
MAHLE Donghyun Filter Systems Co., Ltd., Hwaseong/South Korea	100.00		
MAHLE Electric Drives Japan Corporation, Numazu shi/Japan	100.00		
MAHLE Engine Components (Chongqing) Co., Ltd., Chongqing/China	100.00		
MAHLE Engine Components (Nanjing) Co., Ltd., Nanjing/China	100.00		
MAHLE Engine Components (Thailand) Co., Ltd., Bangkok/Thailand	99.75		
MAHLE Engine Components (Yingkou) Co., Ltd., Yingkou/China	100.00		
MAHLE Engine Components India Private Limited, Pithampur/India	100.00		
MAHLE Engine Components Japan Corporation, Okegawa-shi/Japan	100.00		
MAHLE Engine Components Slovakia s.r.o., Dolný Kubín/Slovakia	100.00		
MAHLE Engine Components USA, Inc., Morristown, Tennessee/USA	100.00		
MAHLE Engine Peripherals and Tooling (Shanghai) Co., Ltd., Shanghai/China	100.00		
MAHLE Engine Systems UK Ltd., Kilmarnock/Great Britain	100.00		

Name and location	*Share in equity in %*	*Equity in EUR '000*	*Result of the last business year in EUR '000*
MAHLE Filter Systems (India) Private Limited, Gurgaon/India	50.00[2)]		
MAHLE Filter Systems Canada, ULC, Tilbury/Canada	100.00		
MAHLE Filter Systems Japan Corporation, Tokyo/Japan	100.00		
MAHLE Filter Systems Land Corporation, Cavite/Philippines	66.67		
MAHLE Filter Systems North America, Inc., Troy, Michigan/USA	100.00		
MAHLE Filter Systems Philippines Corporation, Cavite/Philippines	100.00		
MAHLE Filter Systems s.r.o., Strakonice/Czech Republic	100.00		
MAHLE Filter Systems UK Ltd., Telford/Great Britain	100.00		
MAHLE Filtersysteme Austria GmbH, St. Michael ob Bleiburg/Austria	100.00		
MAHLE Filtersysteme France SAS, Seboncourt/France	100.00		
MAHLE Filtersysteme GmbH, Stuttgart/Germany	100.00		
MAHLE Filtration Industrielle SAS, Rungis/France	100.00		
MAHLE Filtration Systems (Hubei) Co., Ltd., Wuhan City/China	100.00		
MAHLE Filtre Sistemleri A.S., Gebze, Kocaeli/Turkey	100.00		
MAHLE France SAS, Rouffach/France	100.00		
MAHLE Guangzhou Filter Systems Co., Ltd., Guangzhou/China	100.00		
MAHLE Holding (India) Private Limited, Gurgaon/India	100.00		
MAHLE Holding Austria GmbH, St. Michael ob Bleiburg/Austria	100.00		
MAHLE Holding España S.L., Montblanc/Spain	100.00		
MAHLE Immobilien GmbH, Stuttgart/Germany	100.00		
MAHLE Immobilien Schweiz AG, Grenchen/Switzerland	100.00		
MAHLE Indústria e Comércio Ltda., Mogi Guaçu/Brazil	100.00		
MAHLE Industrial Filter Systems (Shanghai) Co., Ltd., Shanghai/China	100.00		
MAHLE Industrial Filtration (Benelux) BV, Lochem/Netherlands	100.00		
MAHLE Industrial Filtration (UK) Ltd., Crewe/Great Britain	100.00		
MAHLE Industrial Filtration USA, Inc., Nowata, Oklahoma/USA	100.00		
MAHLE Industrial Thermal Systems GmbH & Co. KG, Stuttgart/Germany	60.00[7)]		
MAHLE Industriebeteiligungen GmbH, Stuttgart/Germany	100.00		
MAHLE Industriefiltration GmbH, Stuttgart/Germany	100.00		
MAHLE Industriemotoren-Komponenten GmbH, Stuttgart/Germany	100.00		
MAHLE Industries UK Ltd., Rugby/Great Britain	100.00		
MAHLE Industries, Incorporated, Farmington Hills, Michigan/USA	100.00		
MAHLE Industry GmbH, Stuttgart/Germany	100.00		
MAHLE International GmbH, Stuttgart/Germany	100.00		
MAHLE Japan Ltd., Tokyo/Japan	100.00		
MAHLE Kleinmotoren-Komponenten GmbH & Co. KG, Stuttgart/Germany	100.00		
MAHLE König GmbH, Rankweil/Austria	50.00[1)]		
MAHLE König Kommanditgesellschaft GmbH & Co. KG, Rankweil/Austria	50.00[1)]		
MAHLE Konya Motor Parçalari San. ve Tic. A.Ş., Konya/Turkey	100.00		
MAHLE Letrika Bel OOO, Grodno/Belarus	100.00		
MAHLE Letrika Bovec d.o.o., Bovec/Slovenia	100.00		
MAHLE Letrika Deutschland GmbH, Freiberg am Neckar/Germany	100.00		

Name and location	*Share in equity in %*	*Equity in EUR '000*	*Result of the last business year in EUR '000*
MAHLE Letrika d.o.o., Šempeter pri Gorici/Slovenia	100.00		
MAHLE Letrika Italia, S.r.l., Reggio Emilia/Italy	100.00		
Letrika do Brasil Ltda., Jaguariúna/Brazil	99.9996		
MAHLE Letrika Komen d.o.o., Komen/Slovenia	100.00		
MAHLE Letrika Laktaši d.o.o., Laktaši/Bosnia and Herzegovina	100.00		
MAHLE Letrika (Suzhou) Automotive Electrics Co., Ltd., Taicang City/China	98.45		
MAHLE Letrika UK Ltd., Coulsdon/Great Britain	100.00		
MAHLE Letrika USA Inc., Rockford, Illinois/USA	100.00		
MAHLE Luxembourg Sàrl, Luxembourg/Luxembourg	100.00		
MAHLE Manufacturing Management, Inc., Farmington Hills, Michigan/USA	100.00		
MAHLE Maquiladora LLC, Farmington Hills, Michigan/USA	100.00		
MAHLE Metal Leve S.A., Mogi Guaçu/Brazil	70.00		
MAHLE Motor Parçalari San. ve Tic. A.Ş., Izmir/Turkey	100.00		
MAHLE Motorkomponenten GmbH, Plettenberg/Germany	100.00		
MAHLE Polska Spółka z o.o., Krotoszyn/Poland	100.00		
MAHLE Powertrain GmbH, Stuttgart/Germany	100.00		
MAHLE Powertrain Ltd., Northampton/Great Britain	100.00		
MAHLE Powertrain, LLC, Farmington Hills, Michigan/USA	100.00		
MAHLE Property Hungary Kft., Balassagyarmat/Hungary	100.00		
MAHLE RUS, OOO, village Dobrino/Russia	100.00		
MAHLE S.A., Vilanova i la Geltrú/Spain	100.00		
MAHLE Services (Thailand) Ltd., Samut Prakan/Thailand	100.00		
MAHLE Shanghai Filter Systems Co., Ltd., Shanghai/China	95.00		
MAHLE Siam Filter Systems Co., Ltd., Samut Prakan/Thailand	74.90		
MAHLE Sistemas de Filtración de México S.A. de C.V., Santa Catarina, Monterrey/Mexico	100.00		
MAHLE Technologies Holding (China) Co., Ltd., Shanghai/China	100.00		
MAHLE Trading (Shanghai) Co., Ltd., Shanghai/China	100.00		
MAHLE Trading Japan Co., Ltd., Tokyo/Japan	100.00		
MAHLE Tri-Ring Valve Train (Hubei) Co., Ltd., Macheng/China	65.00		
MAHLE Ventiltrieb Brandenburg GmbH, Wustermark/Germany	100.00		
MAHLE Ventiltrieb GmbH, Stuttgart/Germany	100.00		
MAHLE Versicherungsvermittlung GmbH, Stuttgart/Germany	100.00		
MAHLE Vöcklabruck GmbH, Vöcklabruck/Austria	100.00		
OSCON, LLC, Wilmington, Delaware/USA	100.00		
OSNOC, LLC, Wilmington, Delaware/USA	100.00		
PT. MAHLE Filter Systems Indonesia, Jawa Barat/Indonesia	100.00		
PT. MAHLE Indonesia, Bekasi/Indonesia	100.00		
S.C.I. Daudet, Décines/France	100.00		

b) Fully consolidated subsidiaries of MAHLE Behr GmbH & Co. KG with direct shareholding quota

Behr Asia Pacific Management (Shanghai) Co. Ltd., Shanghai/China	100.00		
Behr RUS o.o.o., St. Petersburg/Russia	99.90		
MAHLE Behr Berga GmbH, Berga/Germany	100.00		
MAHLE Behr Charleston Inc., Charleston, South Carolina/USA	100.00		
MAHLE Behr Components Spain S.L., L'Espluga de Francolí/Spain	100.00		
MAHLE Behr Dayton L.L.C., Dayton, Ohio/USA	100.00		
MAHLE Behr France Hambach S.A.S., Hambach/France	100.00		

Name and location	*Share in equity in %*	*Equity in EUR '000*	*Result of the last business year in EUR '000*
MAHLE Behr France Rouffach S.A.S., Rouffach/France	99.995		
MAHLE Behr Gerenciamento Térmico Brasil Ltda., São Paulo/Brazil	99.99		
MAHLE Behr Holding Deutschland GmbH, Stuttgart/Germany	100.00		
MAHLE Behr Holding GmbH, Stuttgart/Germany	100.00		
MAHLE Behr Holýsov s.r.o., Holýsov/Czech Republic	100.00		
MAHLE Behr India Private Limited, Pune/India	60.00		
MAHLE Behr Italy s.r.l., Grugliasco/Italy	98.00		
MAHLE Behr Japan K.K., Tokyo/Japan	100.00		
MAHLE Behr Kirchberg GmbH, Kirchberg/Germany	100.00		
MAHLE Behr Korea Inc., Busan/South Korea	100.00		
MAHLE Behr Kornwestheim GmbH, Kornwestheim/Germany	100.00		
MAHLE Behr Luxembourg Sàrl, Luxembourg/Luxembourg	100.00		
MAHLE Behr Manufacturing Management, Inc., Troy, Michigan/USA	100.00		
MAHLE Behr Maquiladora LLC, Wilmington, Delaware/USA	100.00		
MAHLE Behr Mexico S. de R.L. de C.V., Ramos Arizpe/Mexico	100.00		
MAHLE Behr Mnichovo Hradiště s.r.o., Mnichovo Hradiště/Czech Republic	100.00		
MAHLE Behr Námestovo s.r.o., Námestovo/Slovakia	100.00		
MAHLE Behr Ostrava s.r.o., Mošnov/Czech Republic	99.98		
MAHLE Behr Ostrov s.r.o., Mnichovo Hradiště/Czech Republic	100.00		
MAHLE Behr Ostrów Wielkopolski Sp. z o.o., Ostrów Wielkopolski/Poland	100.00		
MAHLE Behr Ostrów Wielkopolski Park Technologiczny Sp. z o.o., Ostrów Wielkopolski/Poland	100.00		
MAHLE Behr Ostrów Wielkopolski Park Technologiczny Sp. z o.o. Sp. K., Ostrów Wielkopolski/Poland	100.00		
MAHLE Behr Properties Management LLC, Wilmington, Delaware/USA	100.00		
MAHLE Behr Rio Bravo, S. de R.L. de C.V., Ramos Arizpe/Mexico	100.00		
MAHLE Behr Senica s.r.o., Senica/Slovenia	100.00		
MAHLE Behr Service America L.L.C., Troy, Michigan/USA	100.00		
MAHLE Behr Service Asia Co., Ltd., Shanghai/China	100.00		
MAHLE Behr Service GmbH, Schwäbisch Hall/Germany	100.00		
MAHLE Behr Service Mexico, S. de R.L. de C.V., Ramos Arizpe/Mexico	100.00		
MAHLE Behr South Africa (Pty) Ltd., Durban/South Africa	100.00		
MAHLE Behr Spain S.A., Montblanc/Spain	100.00		
MAHLE Behr Thermal Systems (Jinan) Co., Ltd., Jinan/China	100.00		
MAHLE Behr Thermal Systems (Qingdao) Co., Ltd., Qingdao/China	100.00		
MAHLE Behr Troy Inc., Troy, Michigan/USA	100.00		
MAHLE Behr USA Inc., Troy, Michigan/USA	100.00		
MAHLE Behr Versicherungsdienst GmbH, Stuttgart/Germany	95.00		
MAHLE Industrial Thermal Systems GmbH & Co. KG, Stuttgart/Germany	40.00[7)]		

c) Fully consolidated subsidiaries of MAHLE Metal Leve S.A. with direct shareholding quota

MAHLE Argentina S.A., Rafaela/Argentina	100.00		
MAHLE Filtroil Indústria e Comércio de Filtros Ltda., Mogi Guaçu/Brazil	60.00		

Name and location	*Share in equity in %*	*Equity in EUR '000*	*Result of the last business year in EUR '000*
MAHLE Hirschvogel Forjas S.A., Queimados/Brazil	51.00		
MAHLE Industry do Brasil Ltda., Mogi Guaçu/Brazil	100.00		
MAHLE Metal Leve GmbH, St. Michael ob Bleiburg/Austria	100.00		
MAHLE Metal Leve Miba Sinterizados Ltda., Indaiatuba/Brazil	60.00		
d) Fully consolidated subsidiaries of MAHLE Industrial Thermal Systems GmbH & Co. KG with direct shareholding quota			
MAHLE Industrial Thermal Systems (Tianjin) Co., Ltd., Tianjin/China	100.00		
MAHLE Industrial Thermal Systems America, L.P., Belmont, Michigan/USA	99.00		
MAHLE Industrial Thermal Systems Reichenbach GmbH, Heinsdorfergrund/Germany	100.00		
2. Affiliated companies, not consolidated on account of its immateriality for the presentation of the net assets, financial position and results of operations			
a) Affiliated companies of MAHLE Behr GmbH & Co. KG with direct shareholding quota			
MAHLE Behr Australia Pty. Ltd., Sydney/Australia	100.00[4)6)]	250	28
MAHLE Behr Sweden AB, Askim, Göteborg/Sweden	100.00[4)6)]	37	16
MAHLE Behr Thermal Noida Private Limited, Gurgaon/India	100.00[4)]	137	–1
b) Other affiliated companies with direct shareholding quota			
Compañía Rosarina S.A., Rosario/Argentina	100.00[4)]	481	326
Eito Denki Co. Ltd., Gojome-machi, Minamiakita-gun, Akita/Japan	66.80[4)]	1,441	–139
Kokusan Tech Ltd., Gotemba, Shizuoka/Japan	100.00[4)]	3,225	128
MAHLE Engine Components Australia Pty Ltd., Port Melbourne/Australia	100.00[5)]		
MAHLE Filter Systems Kyushu Corporation, Nogata/Japan	100.00[4)]	136	11
MAHLE Filtracja Przemysłowa Sp. z o.o., Wrocław/Poland	100.00[4)]	70	84
MAHLE Industrial Filtration (Malaysia) Sdn. Bhd., Kuala Lumpur/Malaysia	100.00[4)]	–12	0
MAHLE Industrial Filtration Korea Co., Ltd., Busan/South Korea	100.00[4)]	–465	–113
MAHLE Industrial Thermal Systems America, Inc. Belmont, Michigan/USA	100.00[4)]	64	0
MAHLE Industrial Thermal Systems Verwaltung GmbH, Stuttgart/Germany	100.00	426	11
MAHLE InnoWa GmbH, Stuttgart/Germany	100.00	2,543	0
MAHLE Ipari Szűrő Kereskedelmi Szolgáltató Kft., Kisbér/Hungary	100.00[4)]	251	14
MAHLE Kleinmotoren-Komponenten Verwaltung GmbH, Stuttgart/Germany	100.00	27	0
MG Immobilienentwicklungs- und Ansiedlungsgesellschaft mbH, Wolfsberg/Austria	74.00[4)]	929	–135
Ueno Kogyo Co., LTD., Nakano-ku/Japan	100.00[4)]	421	–708
3. Proportionately consolidated companies			
a) Subgroup HBPO that is managed by MAHLE Behr GmbH & Co. KG and two more companies.			
Parent company			
HBPO Beteiligungsgesellschaft mbH, Lippstadt/Germany	33.33		
Companies included in subgroup accounts of HBPO Beteiligungsgesellschaft mbH with direct shareholding quota			
HBPO Asia Ltd., Seoul/South Korea	100.00		
HBPO Automotive Hungária Kft., Györ/Hungary	100.00		
HBPO Automotive Spain S.L., Martorell/Spain	100.00		
HBPO Beijing Ltd., Beijing/China	100.00		
HBPO Canada Inc., Windsor/Canada	100.00		
HBPO China Ltd., Shanghai/China	100.00		
HBPO Czech s.r.o., Mnichovo Hradiště/Czech Republic	100.00		

Name and location	*Share in equity in %*	*Equity in EUR '000*	*Result of the last business year in EUR '000*
HBPO Germany GmbH, Meerane/Germany	100.00		
HBPO GmbH, Lippstadt/Germany	100.00		
HBPO Ingolstadt GmbH, Ingolstadt/Germany	100.00		
HBPO Japan K.K., Tokyo/Japan	100.00		
HBPO Korea Ltd., Busan/South Korea	100.00		
HBPO Manufacturing Hungary Kft., Kecskemét/Hungary	100.00		
HBPO Mexico S.A. de C.V., Puebla/Mexico	100.00		
HBPO North America Inc., Troy, Michigan/USA	100.00		
HBPO Pyeongtaek Ltd., Pyeongtaek/South Korea	100.00		
HBPO Rastatt GmbH, Rastatt/Germany	100.00		
HBPO Regensburg GmbH, Regensburg/Germany	100.00		
HBPO Slovakia s.r.o., Lozorno/Slovakia	100.00		
HBPO UK Ltd., Banbury/Great Britain	100.00		
SHB Automotive Modules Company Ltd., Hwaseong/South Korea	50.00		
b) Subgroup Behr-Hella Thermocontrol that is managed by MAHLE Behr GmbH & Co. KG and another company.			
Parent company			
Behr-Hella Thermocontrol GmbH, Lippstadt/Germany	50.00		
Companies included in subgroup accounts of Behr-Hella Thermocontrol GmbH with direct shareholding quota			
Behr-Hella Thermocontrol (Shanghai) Co., Ltd., Shanghai/China	100.00		
Behr-Hella Thermocontrol EOOD, Sofia/Bulgaria	100.00		
Behr-Hella Thermocontrol Inc., Wixom, Michigan/USA	100.00		
Behr-Hella Thermocontrol India Private Limited, Pune/India	100.00		
Behr-Hella Thermocontrol Japan K.K., Kanagawa/Japan	100.00		
BHTC Mexico S.A. de C.V., Queretaro/Mexico	100.00		

Name and location	*Share in equity in %*	*Equity in EUR '000*	*Result of the last business year in EUR '000*
c) Subgroup Behr Hella Service that is managed by MAHLE Behr GmbH & Co. KG and another company.			
Parent company			
Behr Hella Service GmbH, Schwäbisch Hall/Germany	50.00		
Companies included in subgroup accounts of Behr Hella Service GmbH with direct shareholding quota			
Behr Hella Comércio de Pecas Automotivas S.A., São Paulo/Brazil	100.00		
Behr Hella Service North America L.L.C., Peachtree City, Georgia/USA	100.00		
Behr Hella Service South Africa (Pty) Ltd., Johannesburg/South Africa	100.00		
Behr Service IAM USA Inc., Troy, Michigan/USA	100.00		
d) Proportionately consolidated group of companies that is managed by MAHLE Behr GmbH & Co. KG and another company.			
Parent company			
Shanghai Behr Thermal Systems Co. Ltd., Shanghai/China	50.00		
Subsidiaries with direct shareholding quota			
Chengdu Behr Automotive Thermal Systems Co., Ltd., Chengdu/China	100.00		
Shenyang Behr Automotive Thermal Systems Co., Ltd., Shenyang/China	100.00		
e) Other proportionately consolidated companies with direct shareholding quota that are managed by MAHLE Behr GmbH & Co. KG and another company.			
Behr Thermot-tronik Italia S.p.A., Grugliasco/Italy	50.00		
Dongfeng Behr Thermal Systems Co. Ltd., Wuhan/China	50.00		
f) Other proportionately consolidated companies that are managed by MAHLE GmbH and another company.			
Allied Ring Corporation, St. Johns, Michigan/USA	50.00		

Name and location	*Share in equity in %*	*Equity in EUR '000*	*Result of the last business year in EUR '000*
4. Associated companies, consolidated using the equity method			
a) Associated companies of MAHLE Behr GmbH & Co. KG with direct shareholding quota			
Dongfeng-Paninco Automobile Aluminium Heat Exchanger Co.Ltd., Shiyan/China	50.00		
HICOM HBPO SDN BHD, Shah Alam/Malaysia	40.00		
b) Associated companies of MAHLE Metal Leve S.A. with direct shareholding quota			
Innoferm Tecnologia Ltda., Mogi Guaçu/Brazil	33.30[3)4)]	3,254	2,829
c) Other associated companies with direct shareholding quota			
Bosch Mahle Turbo Systems GmbH & Co. KG, Stuttgart/Germany	50.00		
Bosch Mahle Turbo Systems Verwaltungs GmbH, Stuttgart/Germany	50.00[3)]	25	3
Cofap Companhia Fabricadora de Peças Ltda., São Paulo/Brazil	31.65		
India Nippon Electricals Limited, Tamil Nadu/India	20.50[3)4)]	18,648	1,475
INPRIME d.o.o., Tolmin/Slovenia	20.84[3)4)]	–271	5
LangFang Kokusan Electric Co., Ltd., Hebei/China	40.00		
Letrika Lab, d.o.o., Šempeter pri Gorici/Slovenia	50.00[3)4)]	117	19
Letrika SOL d.o.o., Šempeter pri Gorici/Slovenia	50.00[3)4)]	731	-212
MAHLE Behr Verwaltung GmbH, Stuttgart/Germany	23.08[3)6)]	17,672	304
MAHLE Letrika Roots India Private Limited, Coimbatore/India	50.00[3)4)6)]	658	–35
Pt Federal Izumi Manufacturing, Bogor/Indonesia	36.94		
SiEVA d.o.o., Šempeter pri Gorici/Slovenia	20.00[3)4)]	6,708	56

[1)] Consolidated due to controlling influence
[2)] Shareholding 50% + 1 share
[3)] The company was not measured using the equity method on account of its immateriality for the presentation of the net assets, financial position and results of operations
[4)] Local financial statements
[5)] Affiliated company, consolidated using the equity method
[6)] Previous years figures according to last available financial statement
[7)] From the Group's perspective, company is included by 100%

AUDITOR'S REPORT

This audit report is issued on financial statements prepared in German language.

We have audited the consolidated financial statements prepared by MAHLE GmbH, Stuttgart/Germany, comprising the balance sheet, the income statement, the cash flow statement, the statement of changes in equity, and the notes to the consolidated financial statements, together with the group management report for the business year from January 1 to December 31, 2015. The preparation of the consolidated financial statements and the group management report in accordance with German commercial law is the responsibility of the parent company's Management Board members. Our responsibility is to express an opinion on the consolidated financial statements and the group management report based on our audit.

We conducted our audit of the consolidated financial statements in accordance with § (Article) 317 HGB ("Handelsgesetzbuch": "German Commercial Code") and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany) (IDW). Those standards require that we plan and perform the audit such that misstatements materially affecting the presentation of the net assets, financial position, and results of operations in the consolidated financial statements in accordance with (German) principles of proper accounting and in the group management report are detected with reasonable assurance. Knowledge of the business activities and the economic and legal environment of the group and expectations as to possible misstatements are taken into account in the determination of audit procedures. The effectiveness of the accounting-related internal control system and the evidence supporting the disclosures in the consolidated financial statements and the group management report are examined primarily on a test basis within the framework of the audit. The audit includes assessing the annual financial statements of the companies included in consolidation, the determination of the companies to be included in consolidation, the accounting and consolidation principles used and significant estimates made by the company's Management Board members, as well as evaluating the overall presentation of the consolidated financial statements and the group management report. We believe that our audit provides a reasonable basis for our opinion.

Our audit has not led to any reservations.

In our opinion based on the findings of our audit, the consolidated financial statements comply with the legal requirements and give a true and fair view of the net assets, financial position, and results of operations of the group in accordance with (German) principles of proper accounting. The group management report is consistent with the consolidated financial statements and as a whole provides a suitable view of the group's position and suitably presents the opportunities and risks of future development.

Stuttgart, March 18, 2016

PricewaterhouseCoopers
Aktiengesellschaft
Wirtschaftsprüfungsgesellschaft

sgd. Dieter Wißfeld
Wirtschaftsprüfer
(German Public Auditor)

sgd. ppa. Renate Berghoff
Wirtschaftsprüferin
(German Public Auditor)

MEMBERS OF THE SUPERVISORY BOARD

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until June 30, 2015
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Former Chairman of the Management Board of ZF Friedrichshafen AG, Friedrichshafen/Germany

PROF. DR.-ING. HEINZ K. JUNKER
effective July 1, 2015
CHAIRMAN
Former Chairman of the Management Board and CEO of MAHLE GmbH, Stuttgart/Germany

BERND HOFMAIER-SCHÄFER
until December 31, 2015
DEPUTY CHAIRMAN
Former Chairman of the Central Works Council of MAHLE Group Germany

UWE MEINHARDT
DEPUTY CHAIRMAN
effective January 1, 2016
Executive Director of IG Metall, administrative office Stuttgart/Germany

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MARTIN BÜCHER
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until March 18, 2016
Trade Union Secretary of IG Metall

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Former Vice President Sales and Application Engineering Commercial Vehicles of MAHLE Group

MICHAEL KOCKEN
effective March 19, 2016
Trade Union Secretary of IG Metall, administrative office Stuttgart/Germany

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Vice President Corporate Research and Advanced Engineering of MAHLE Group

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Chairman of the European Works Council of MAHLE Group and Deputy Chairman of the Central Works Council of the MAHLE Group Germany

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Spokesperson of Management IG Metall, Frankfurt/Germany

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Former Member of the Management Board and CFO of MAHLE GmbH, Stuttgart/Germany

GEORG WEIBERG
Former Head of Global Truck Engineering, Daimler AG, Stuttgart/Germany

MEMBERS OF THE MANAGEMENT BOARD

PROF. DR.-ING. HEINZ K. JUNKER
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CHAIRMAN AND CEO
Research and Advanced Engineering,
Corporate Planning, Corporate Communications,
Engineering Services, Motorsports, and
Special Applications profit centers

WOLF-HENNING SCHEIDER
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VICE CHAIRMAN

effective July 1, 2015
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Research and Advanced Engineering,
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Special Applications profit center

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Corporate Executive Vice President and General Manager
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Control Units, and Front-end Modules profit centers

IMPRINT/CONTACT

EVENTS 2016

April 22, 2016
Press conference on the Financial Statements

September 9, 2016
Semiannual press conference

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