

MAHLE

Driven by performance

2014 //

ANNUAL REPORT

ANNUAL CHRONICLE – HIGHLIGHTS 2014 //

JANUARY

Series order for air intake modules

A major Japanese customer commissions MAHLE to manufacture air intake modules for its production locations in Japan, China, and North America.

High-volume order for exhaust gas heat exchangers

MAHLE becomes the sole European market supplier of exhaust gas heat exchangers for the diesel engines of one of the largest passenger car manufacturers.

Supplier award from BYD Auto

MAHLE Technologies Holding (China) Co., Ltd. in Shanghai receives the “Excellent Service Award” from BYD Auto.

Supplier award from CNHTC

China National Heavy Duty Truck Group (CNHTC) acknowledges MAHLE Engine Components (Nanjing) Co., Ltd. in China as an “Excellent Partner.”

FEBRUARY

High-volume order for assembled camshafts

Until the end of 2022, MAHLE will be the sole supplier of camshafts for the diesel engines of one of the largest passenger car manufacturers.

New customer for cooling systems

For the first time, MAHLE supplies cooling systems for the series production of a leading global engine manufacturer’s 13-liter gensets. Start of production is planned for November 2014.

Supplier awards from John Deere Power Systems

John Deere Power Systems presents MAHLE Metal Leve S.A. in Mogi Guaçu/Brazil and MAHLE Engine Components USA, Inc. in Russellville with the “Achieving Excellence – In Recognition of Partner-level Performance” award.

Supplier awards from Ford

Ford recognizes MAHLE Behr Charleston Inc. in the United States and MAHLE Behr France Rouffach S.A.S. with the “Q1” award.

MARCH

New sales and logistics center in South America

The new 32,000 square meter center in Limeira in the state of São Paulo/Brazil doubles the warehouse and logistics capacity of the MAHLE Aftermarket business unit in South America.

Global order for valve covers

MAHLE receives a series order for valve covers from a major Japanese automobile manufacturer and thereby consolidates its position in Japan, China, Thailand, and North America.

Supplier awards from Isuzu

Isuzu Motors presents MAHLE Engine Components Japan Corporation in Tsuruoka with the “Achievement of Quality” award and Isuzu Philippines Corporation honors MAHLE Filter Systems Philippines Corporation in Cavite with the “Excellent Parts Quality” award.

Supplier award from Renault Samsung Motors

MAHLE Behr Korea Inc. in Busan is honored by Renault Samsung Motors with the “Outstanding Performance – Quality Improvement Plan” award.

APRIL

Order for aluminum pistons

The order from an American automobile manufacturer secures MAHLE the follow-up business for the North American market supply with EVOTEC® technology-based aluminum ring carrier pistons for their high-volume six-cylinder gasoline engine.

High-volume order for assembled camshafts

One of the large European premium manufacturers puts its trust in MAHLE’s expertise in assembled intake and exhaust camshafts and has placed orders for its new generations of three- and four-cylinder gasoline engines.

Order for cooling systems

MAHLE becomes a supplier of cooling systems for the first vehicle platform of a newly established Russian joint venture. The first assignment encompasses 100 cooling systems for 50 double locomotives.

Order for cooling towers

MAHLE receives follow-up orders for cooling towers for Chinese high-speed trains from two major Chinese customers. This significantly strengthens the market position in China.

Supplier awards from Jaguar Land Rover

Jaguar Land Rover honors MAHLE Behr GmbH & Co. KG in Neustadt an der Donau/Germany with the “JLR Body Engineering Gold Award” and MAHLE Componentes de Motor de México, S. de R.L. de C.V. in Ramos Arizpe with the “JLRQ Award.”

Supplier award from Toyota

MAHLE Sistemas de Filtración de México S.A. de C.V. in Santa Catarina receives the “Certificate of Quality Performance Achievement” award from Toyota.

MAY

Order for aluminum pistons

A major American automobile manufacturer assigns MAHLE with the supply of friction-optimized aluminum pistons with EvoGlide coating for six-cylinder gasoline engines.

High-volume order for valves

A large European premium manufacturer commissions MAHLE to deliver intake and exhaust valves for its new generations of three- and four-cylinder gasoline engines.

Order for HVAC modules

MAHLE is to manufacture HVAC modules for the global vehicle platform of one of the largest automobile manufacturers in the world.

Order for coalescer filters

MAHLE supplies newly developed coalescer filters for the separation of water from fuel and oil to a German manufacturer of large engines.

Supplier award from Jatco

MAHLE Sistemas de Filtración de México S.A. de C.V. in Santa Catarina receives the “Best Performance” award from Jatco.

JUNE

Audi and MAHLE triumph at Le Mans

The thirteenth Audi victory at the 24 Hours of Le Mans is the fifth in succession and the eighth with a diesel engine. The new V6 TDI engine of the Audi R18 e-tron quattro also operates with extremely durable, ultralight motorsport steel pistons and engine components from MAHLE.

What’s more: the development of the motorsport steel piston has unleashed synergies. As of 2014, MAHLE starts the series production of steel pistons for passenger car diesel engines.



MAHLE GROUP //

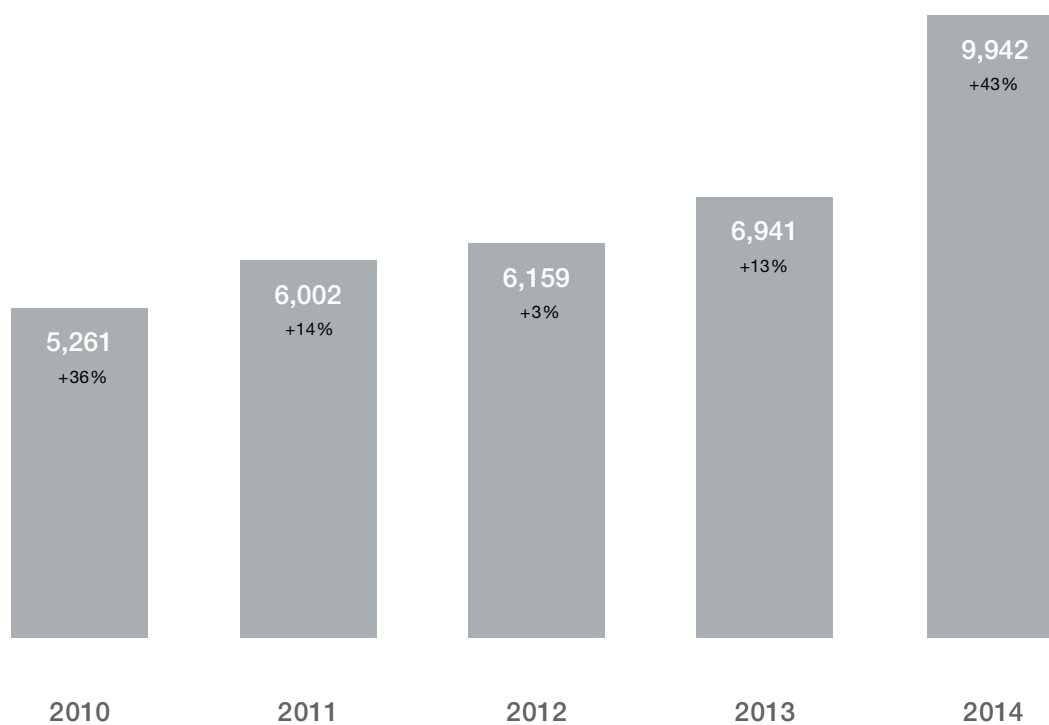
FIGURES //

million EUR

Business year	2010	2011	2012	2013	2014
Sales	5,261	6,002	6,159	6,941	9,942
EBITDA	641	759	725	771	1,022
EBIT	287	425	401	422	514
Result from ordinary activities	252	351	267	307	401
Net income	177	231	149	236	279
Tangible fixed assets	1,522	1,562	1,561	2,167	2,446
Capital expenditure on tangible fixed assets (without first consolidation)	199	319	324	397	488
Equity	1,464	1,696	1,775	2,207	2,555
Dividend paid by MAHLE GmbH	5.5	7.0	5.0	7.1	8.5
Headcount (as at Dec. 31)	47,457	48,818	47,662	64,345	66,234

DEVELOPMENT OF SALES //

million EUR



Sales and logistics center opens in Russia

The center in Obninsk is strengthening MAHLE's presence in the eastern European automotive parts market.

Bosch Mahle Turbo Systems founds subsidiary in China

Turbochargers for gasoline engines will be produced in a new building on the MAHLE premises in Shanghai, on an area of initially 5,000 square meters. The annual capacity amounts to more than one million turbochargers, which has already been secured thanks to customer orders.

MAHLE Innovation Day at Toyota

Accompanied by technical lectures, MAHLE showcases its product highlights in Toyota's Suppliers Center.

Platform framework agreement for cooling systems

MAHLE is to supply a German railroad vehicle manufacturer with cooling systems for 400 locomotives until 2020. With a drive power of 6.4 MW, they are among the strongest electric locomotives on the market.

Supplier awards from PSA Peugeot Citroën

PSA Peugeot Citroën honors MAHLE Metal Leve S.A. in Mogi Guaçu/Brazil with the "Supplier Award for Industrial Excellence." In addition, MAHLE Motor-komponenten GmbH in Eisligen, Fils/Germany, MAHLE Componentes de Motores S.A. in Murte-de/Portugal, and MAHLE Componentes de Motor España, S.L. in Vilanova i la Geltrú/Spain receive the "Supplier Award – Best Plant."



JULY

Order for passenger car steel pistons

With an order for passenger car steel pistons, MAHLE strengthens its position in this sector with a globally operating European automobile manufacturer beyond the year 2022.

High-volume order for oil pumps

The development of an innovative oil pump for three- and four-cylinder gasoline engines for a premium manufacturer has led to a high-volume order that spans a further eight years.

High-volume order in the area of engine cooling

MAHLE secures the follow-up order for condensers, radiators, and fans with a major North American automobile manufacturer in the 3.6-liter segment.

High-volume order for exhaust gas heat exchangers

The development of an exhaust gas heat exchanger for the six-cylinder engines of a global commercial vehicle manufacturer is concluded with a high-volume follow-up order over six years for the European and North American markets.

Supplier award from Volkswagen

Volkswagen presents MAHLE Filter Systems UK Ltd. in Telford/Great Britain with the "Formel Q Capability" award.

AUGUST

Two new plants in China

MAHLE Filtration Systems (Hubei) Co., Ltd. will manufacture filtration products for international OEMs based in China. The new plant will be MAHLE's largest in central China and the fifth Chinese location of the Filtration and Engine Peripherals business unit.

The new plant in Shenyang is the second production location of Shanghai Behr Thermal Systems Co., Ltd. (SBTS), a joint venture between MAHLE Behr GmbH & Co. KG and Shanghai Sanden Behr Automotive Air Conditioning Co., Ltd.; vehicle air conditioning and engine cooling products are manufactured there.

Order for passenger car aluminum pistons

MAHLE is to meet the piston requirements of a major Asian automobile manufacturer's four-cylinder gasoline engines, which are produced in Japan, China, and Mexico.

Order for locomotive charge air coolers

A major American customer nominates MAHLE as the series supplier for the charge air coolers of a new locomotive series.

Supplier award from Caterpillar

Caterpillar honors MAHLE Engine Components USA, Inc. in Morristown with the "Supplier Quality Excellence Process – Silver" award.

SEPTEMBER

VW triumphs again as World Rally Champion

VW secures the FIA World Rally Championship early with a triple victory—and MAHLE inside. The three Volkswagen crews are not only ahead in the manufacturer ranking, but also in the overall ranking.

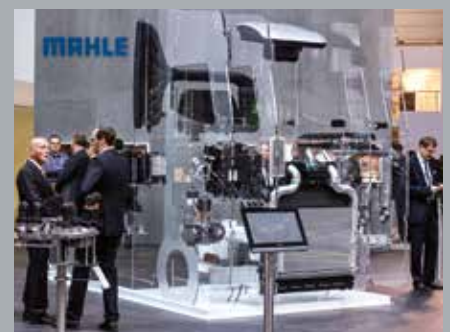
Acquisition of majority shareholding in Letrika

Letrika is of central importance to strengthening MAHLE's mechatronics/electrics division. In 2014, the manufacturer of electric motors, generators, and electric as well as mechatronic drive systems generated sales of approximately EUR 240 million with its around 2,500 employees and production locations in Slovenia, Bosnia and Herzegovina, Belarus, Brazil, and China.



International Motor Show (IAA) in Hanover

As the world's leading trade fair, the IAA 2014 in Hanover/Germany is dedicated to transport efficiency in commercial vehicles. MAHLE exhibits future-oriented solutions for the powertrain, whose peripherals and thermal management further reduce fuel consumption. With its comprehensive portfolio, MAHLE is tapping more and more synergy effects between the various components and systems.



Series order for charge air coolers

An established automobile manufacturer commissions MAHLE for the first time to supply indirect charge air coolers including condensers for various gasoline and diesel engines in Europe.

Series order for HVAC modules

MAHLE receives the contract from a globally operating automobile manufacturer to supply an additional quota of HVAC modules for its global vehicle platform in China.

Supplier awards from Ford

Ford honors MAHLE Engine Components USA, Inc. in Morristown with the "World Excellence Silver Award" and presents MAHLE Componentes de Motores S.A. in Murteide/Portugal with the "Q1" award.

Supplier awards from General Motors

General Motors bestows the "GM Supplier Quality Excellence Award" to MAHLE Behr France Rouffach S.A.S., MAHLE Filter Systems North America, Inc. in Winterset, MAHLE Componentes de Motor de México, S. de R.L. de C.V. in Aguascalientes, and MAHLE Behr Mexico S. de R.L. de C.V. in Ramos Arizpe.

Supplier awards from Nissan

Nissan awards MAHLE Filter Systems Japan Corporation in Ibaraki with the "Best Performance Award."

OCTOBER

BMW wins the DTM manufacturer title

BMW achieves great success at the German Touring Car Masters (DTM): the title in the manufacturer ranking is successfully defended and Marco Wittmann, who is competing in his first DTM season, becomes the DTM champion. The BMW M4 DTM is equipped with forged pistons and bearings from MAHLE.



New plant opened in Indonesia

The new plant near Jakarta will manufacture air intake modules, air ducts, and cylinder head covers — primarily for MAHLE's key Japanese customers.

MAHLE Innovation Day at Honda and Hyundai

Accompanied by technical lectures, MAHLE showcases its product highlights at Honda and Hyundai.

High-volume order for assembled camshafts

Innovative DLC technology for minimizing frictional loss convinces a major European automobile manufacturer: MAHLE is commissioned with the delivery of assembled DLC-coated camshafts for their three-cylinder gasoline engines.

Supplier award from Ford

Ford presents MAHLE Behr Charleston Inc. in the United States with the "Q1" award.

Supplier award from Renault

Renault presents MAHLE GmbH in Stuttgart/Germany with the "Innovation Supplier Award," thus honoring the first European market launch of passenger car steel pistons for diesel engines.



NOVEMBER

Expanded research and development center in China

Following its third expansion, the research and development center in Shanghai now boasts more than 35,000 square meters of office, laboratory, and test bench space, making it the largest MAHLE Tech Center in Asia. Furthermore, Bosch Mahle Turbo Systems will manufacture exhaust gas turbochargers for the Chinese market on campus in a separate production plant from the end of 2014.

Follow-up order for HVAC modules

MAHLE is once again nominated by a major automobile manufacturer as a high-volume supplier of HVAC modules for the global market of its compact car platform.

Launch of cooling module family in China

The module family consists of three standard cooling systems, each with two options as well as four different fan drives. Heat exchangers and cooling modules are manufactured by MAHLE in Jinan.

Supplier award from Dongfeng

Dongfeng Light Engine honors MAHLE Engine Components (Nanjing) Co., Ltd. in China with the "Excellent Supplier" award.

DECEMBER

New plants in Mexico

Construction work for new plants of the Filtration and Engine Peripherals as well as Thermal Management business units is progressing in Ramos Arizpe/north Mexico and Celaya/central Mexico. The plants are to start production in the first half of 2015 and will exclusively supply the North American region.

Orders for passenger car steel pistons and assembled camshafts with roller bearings

The end of the year brings new and follow-up orders for passenger car steel pistons and assembled camshafts with roller bearings for a major European automobile manufacturer. MAHLE thus consolidates its order portfolio and once again gets the opportunity to prove its technological expertise.

Supplier award from Beijing Foton Cummins Engine

MAHLE Engine Components (Nanjing) Co., Ltd. in China receives the "Best Quality" award from Beijing Foton Cummins Engine.

Supplier awards from General Motors

General Motors presents the "GM Supplier Quality Excellence Award" to MAHLE Engine Components (Thailand) Co., Ltd. in Bangkok, MAHLE Donghyun Filter Systems Co., Ltd. in Ulsan/Korea, MAHLE Behr Korea Inc. in Busan, MAHLE Engine Components India Private Limited in Pithampur, and MAHLE Behr India Private Limited in Pune.

Supplier awards from Honda and DNEC

MAHLE Guangzhou Filter Systems Co., Ltd. in China receives the "Excellent Supplier" award from Honda and the "Best Improvement Award" from Dongfeng Nissan Engine Company (DNEC).

01 //

THE COMPANY

02 //

MANAGEMENT REPORT

03 //

CONSOLIDATED FINANCIAL STATEMENTS

CONTENTS	02
CEO'S LETTER	04
<hr/>	
01 // THE COMPANY	06
MANAGEMENT BOARD	08
MAHLE WORLDWIDE	10
GROUP ORGANIZATION	12
BUSINESS UNITS	14
PROFIT CENTERS	21
SPECIAL: GREENFIELD OPERATIONS	24
REFERENCES	28
CORPORATE CITIZENSHIP	30
HUMAN RESOURCES	32
QUALITY	36
ENVIRONMENT	38
RESEARCH & DEVELOPMENT	40
SPECIAL: SUSTAINABLE MOBILITY	46
<hr/>	
02 // MANAGEMENT REPORT	52
GLOBAL ECONOMIC CONDITIONS	54
BUSINESS DEVELOPMENT	56
TECHNOLOGY AND INNOVATION	61
PURCHASING	62
PRODUCTION AND HUMAN RESOURCES	63
NET ASSETS, FINANCIAL POSITION, AND RESULTS OF OPERATIONS	64
OPPORTUNITY AND RISK REPORT	68
OUTLOOK	70
<hr/>	
03 // CONSOLIDATED FINANCIAL STATEMENTS	72
CONSOLIDATED BALANCE SHEET	74
CONSOLIDATED INCOME STATEMENT	76
CONSOLIDATED CASH FLOW STATEMENT	77
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS	78
AUDITOR'S REPORT	87
<hr/>	
SUPERVISORY BOARD	88
MANAGEMENT BOARD	90
IMPRINT	92

Dear readers,

2014 was another year of great dynamics and change for MAHLE. The markets are acting in an increasingly volatile manner and technologies are subject to rapid change. We have accepted the new challenges and taken the necessary steps in 2014 to ensure our company remains in a stable position both now and in the future.

The full consolidation of the MAHLE Behr Group (Thermal Management business unit) in 2014 is primarily responsible for increasing our sales from around EUR 6.9 billion to almost EUR 10 billion; this corresponds to an improvement of roughly 43 percent. After adjustment for consolidation and exchange rate effects, the sales growth amounts to two percent.

On the one hand, this is due to the introduction of new efficiency products, and on the other hand, because of the widely varying development of the automotive markets in the different countries and regions. Bouncing back from a very low level, the market in Europe has stabilized again. At the same time, particularly the North American and Chinese markets stood out once again with impressive growth figures. In contrast, markets of importance to us in South America and Eastern Europe, as well as several Asian countries, experienced a disappointing trend on account of political and macroeconomic implications.

Pronounced exchange rate fluctuations to the value of around EUR 128 million in MAHLE's most important foreign currencies (U.S. dollar, yuan, yen, real) had a negative impact on group sales during the course of 2014. Only toward the end of the year did the exchange rate relationship between the euro and the U.S. dollar return to a normal level. From a long-term perspective —2009 to 2014— we can look back on a compound annual growth rate (CAGR) of more than 20 percent.

Operationally, we achieved an overall satisfactory result in 2014—despite the significant negative effects from the markets in Brazil, Russia, Ukraine, India, and Thailand. We adapted our balance sheet structures to be more sound and were even able to improve them to some extent despite the full consolidation of the MAHLE Behr Group.

Particular highlights include the following projects and events:

- The integration of the MAHLE Behr Group was successfully completed, apart from a few long-term projects.
- The acquisition of the Slovenian company Letrika d.d. led to a significant expansion of our electric and mechatronic activities. In 2014, Letrika generated sales of approximately EUR 240 million with around 2,500 employees. The company has comprehensive development and production expertise in the field of electric and mechatronic drives for automotive and industrial applications. In 2015, the development center in Šempeter pri Gorici will be linked to the remaining MAHLE research and development centers in Europe, America, and Asia. The market segments important to MAHLE in the medium and long term are in the areas of electric traction motors for light vehicle and industrial applications, hybrid drive components and powertrains for electrical auxiliary components, as well as the appropriate actuators for electrified combustion engines. Together with our existing development and production activities, we are planning sales of more than EUR 500 million in this area in the medium term.

In the 2014 business year, we also heavily expanded activities in our other core fields of expertise. The Filtration and Engine Peripherals business unit has opened new plants in Wuhan/China and Jakarta/Indonesia. The Thermal Management business unit now has a new production unit in Shenyang in northern China to supply customers in the region. The Engine Systems and Components business unit invested considerably in the production of CO₂ efficiency products such as steel pistons for passenger car engines and assembled camshafts at its existing locations in Europe, North America, and Asia. The MAHLE research and development center in Shanghai was substantially enhanced once again in a third expansion phase; it now offers room for about 1,000 employees. Our Bosch Mahle Turbo Systems joint venture will also start manufacturing turbochargers on this enlarged campus in 2015. Furthermore, the Filtration and Engine Peripherals as well as Thermal Management business units will be commissioning additional new production plants in Mexico and China in the first half of 2015.

Toward the end of the 2014 business year and after intensive deliberations and discussions, we decided to dissolve the Industry business unit as an organizational entity and to place its activities under the management of our automotive business units Engine Systems and Components, Filtration and Engine Peripherals, as well as Thermal Management. We expect this move to generate considerable vertical synergy effects in the medium term, for instance, in the areas of product development and purchasing.

Overall, the 2014 business year has been another successful milestone in the company's history. As one of the 20 largest automotive suppliers, we now rank among the world's leading technological providers and market share leaders in all our business segments—for passenger cars, commercial vehicles, and industrial applications. It is our intention to strengthen and extend this position in 2015.

To this end, we concluded a contract with Delphi Automotive PLC in February 2015 to take over their thermal business. This acquisition serves the strategic expansion of the important thermal management growth sector, which will play an increasingly substantial role in all future alternative drive systems. During the 2014 business year, Delphi's thermal business generated sales of around EUR 1 billion with roughly 7,600 employees at 13 production and development locations. We expect to complete the transaction in the summer of 2015, which is to be rapidly followed by its integration into the global MAHLE organizational structure.

Despite the volatile markets and political uncertainties in various regions of the world, we expect growth of five to ten percent in 2015.

On behalf of my colleagues on the Management Board, I would like to offer my sincere thanks to all employees worldwide for their high level of commitment, as well as to customers and suppliers for their trusting collaboration. I would also like to express my appreciation to the Supervisory Board and the shareholders for their support in the implementation of our goals.




Heinz K. Junker





01 //

THE COMPANY

08	MANAGEMENT BOARD
10	MAHLE WORLDWIDE
12	GROUP ORGANIZATION
14	BUSINESS UNITS
21	PROFIT CENTERS
24	SPECIAL: GREENFIELD OPERATIONS
28	REFERENCES
30	CORPORATE CITIZENSHIP
32	HUMAN RESOURCES
36	QUALITY
38	ENVIRONMENT
40	RESEARCH & DEVELOPMENT
46	SPECIAL: SUSTAINABLE MOBILITY

MANAGEMENT BOARD //

As at January 2015

Prof. Dr. Heinz K. Junker

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



Dr. Rudolf Paulik

Member of the Management Board
Business Unit Engine Systems and
Components, Corporate Quality Management,
Profit Centers Large Engine Components,
Small Engine Components

Michael Glowatzki

Member of the Management Board
Human Resources, Legal

Wilhelm Emperhoff

Member of the Management Board
Business Unit Filtration and Engine Peripherals,
Profit Centers Industrial Filtration, Actuators and Heaters,
Electric Drives and Applications

**Michael Frick**

Member of the Management Board
Chief Financial Officer,
IT Services, Insurances, Internal Audit
(effective July 1, 2014)

Arnd Franz

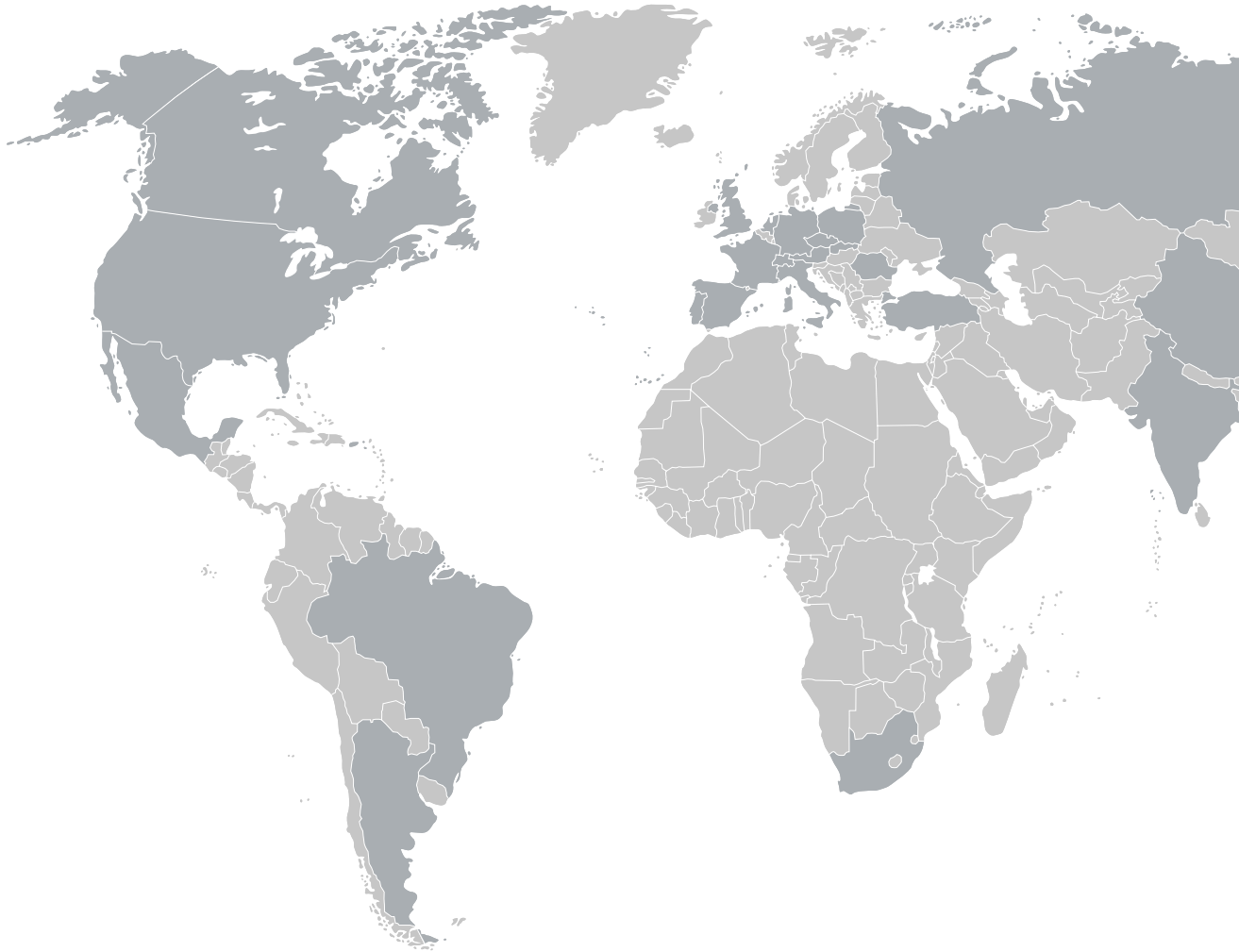
Member of the Management Board
Automotive Sales and Application Engineering,
Business Unit Aftermarket

Dr. Jörg Stratmann

Member of the Management Board
Business Unit Thermal Management,
Profit Centers Industrial Thermal Management,
Control Units, Front-end Modules

MAHLE WORLDWIDE //

As at April 2015



EXPLANATION //

Production locations

R&D centers

NORTH AMERICA

CANADA

Burlington

Tilbury

MEXICO

Aguascalientes

Lerma

Naucalpan de Juárez

Querétaro

Ramos Arizpe

Santa Catarina/
Monterrey

USA

Atlantic (IA)

Belmont (MI)

Charleston (SC)

Dayton (OH)

**Farmington Hills/
Detroit (MI)**

McConnelsville (OH)

Morristown (TN)

Murfreesboro (TN)

Nowata (OK)

Olive Branch (MS)

Russellville (AR)

St. Johns (MI)

Troy (MI)

Winterset (IA)

Wixom (MI)

York (PA)

SOUTH AMERICA

ARGENTINA

Buenos Aires

Rafaela

BRAZIL

Aruja

Indaiatuba

Itajubá

Jardim São Sebastiao/
Jaguariúna

Jundiaí/São Paulo

Limeira

Mogi Guaçu

Queimados/
Rio de Janeiro

São Bernardo do
Campo



EUROPE

**BOSNIA AND
HERZEGOVINA**

Laktaši

BULGARIA

Sofia

GERMANY

Albershausen

Auengrund

Berga

Eislingen/Fils

Fellbach

Freiberg

Gaildorf

Kirchberg

Kornwestheim

Leibertingen

Lippstadt

Lorch

Markgröningen

Mühlacker

Neustadt/Donau

Öhringen

Pforzheim

Plettenberg

Reichenbach

Roßwein

Rottweil

Schorndorf

Schwäbisch Hall

Stuttgart

Vaihingen/Enz

Wölfersheim

Wustermark

Zell im Wiesental

FRANCE

Chavanod

Décines

Hambach

Orange

Poissy

Rouffach

Rungis/Paris

Seboncourt

GREAT BRITAIN

Bilston

Kilmarnock

Northampton

Rugby

Telford

Wellingborough

Worcester

ITALY

Grugliasco/Turin

La Loggia

Saluzzo

Trento

NETHERLANDS

Lochem

AUSTRIA

Mattighofen

Rankweil

St. Michael ob

Bleiburg

Vöcklabruck

Wolfsberg

POLAND

Krotoszyn

PORTUGAL

Murtede

ROMANIA

Timisoara

RUSSIA

Naberezhnye Chelny

Obninsk

SLOVAKIA

Dolný Kubín

Námestovo

SLOVENIA

Bovec

Komen

Šempeter pri Gorici

SPAINAlcalá de Henares/
Madrid

Montblanc

Vilanova i la Geltrú

CZECH REPUBLIC

Holýšov

Mnichovo Hradiště

Ostrava

TURKEY

Gebze

Izmir

Konya

BELARUS

Grodno

ASIA/PACIFIC

CHINA

Changchun

Chengdu

Chongqing

Guangzhou

Jinan

Macheng

Nanjing

Qingdao

Shanghai

Shenyang

Shiyan

Suzhou

Tianjin

Wuhan

Yingkou

INDIA

Chennai

Gurgaon

Parwanoo

Pithampur

Pune

Sanand

INDONESIA

Jakarta

JAPAN

Fukushima

Ibaraki

Kawagoe

Kyushu

Okegawa

Tochigi

Tokyo

Tsuruoka

Yamagata

KOREA

Busan

Hwasung

Jangan

Ulsan

PHILIPPINES

Cavite

SINGAPORE

Singapore

THAILAND

Bangkok

Samut Prakan

AFRICA

SOUTH AFRICA

Durban

Port Elizabeth

GROUP ORGANIZATION //

As at January 2015

The MAHLE Group is split into four business units and nine profit centers. Customers in the automotive industry are mainly served by the Engine Systems and Components, Filtration and Engine Peripherals, as well as Thermal Management business units, the latter having been recently added in 2013. The Aftermarket business unit supplies the independent automotive spare parts market with products in original equipment quality. The profit centers are geared toward specific customer segments and fall under the management of the respective automotive business unit.

In order to exploit the vertical synergies more effectively, the Large Engine Components, Industrial Filtration, and Industrial Thermal Management subsegments of the former Industry business unit have been operating as a profit center since the beginning of 2015. Furthermore, the profit centers Motorsports and Special Engines as well as Engineering Services have been consolidated and are now called Engineering Services, Motorsports, and Special Applications. The former Mechatronics profit center has been renamed Actuators and Heaters, and the previous Thermostats and Valves profit center now belongs to the Thermal Management business unit. The acquisition of the Letrika Group has seen the establishment of the Electric Drives and Applications profit center.

The Small Engine Components, Control Units, and Front-end Modules profit centers remain unchanged.

BUSINESS UNITS

Sales and Application Engineering

Advanced Engineering

Engine Systems and Components (BU1)

Aluminum pistons for gasoline and diesel engines, steel pistons for passenger car and commercial vehicle engines, piston assemblies, and complete power cell units

Piston rings, piston pins, connecting rods, cylinder liners, bearings, and bushings for combustion engines and other automotive applications, piston inserts

Complete valve train systems and their components, camshafts, valves, and valve actuating components

Filtration and Engine Peripherals (BU2)

Filter modules for fuel, oil, and air filtration, as well as cabin air filters

Air intake modules for gasoline and diesel engines, cylinder head covers with integrated oil mist separation, controlled oil pump systems, oil coolers for engine and transmission applications, and activated carbon canister modules for tank ventilation

Thermal Management (BU3)

Complete HVAC systems, condensers, evaporators, storage evaporators and evaporator coatings; heater cores, blowers, air vents, fragrancing units; cooling plates and chillers for lithium-ion battery cooling

Cooling modules, expansion tanks, high- and low-temperature radiators, exhaust gas coolers, direct and indirect engine and transmission oil coolers, exhaust gas coolers, direct and indirect charge air coolers, power steering oil coolers; VISCO® clutches and fans as well as VISCO® coolant pumps for commercial vehicle applications

Aftermarket (BU4)

Products for vehicle maintenance and engine repair for passenger cars, motorcycles, transporters, commercial vehicles, stationary engines, as well as agricultural and construction machinery: engine components, filters, engine gaskets, exhaust gas turbochargers, air compressors, thermostats, and components for vehicle air conditioning and engine cooling; workshop equipment for air conditioning, oil, and cooling circuit maintenance; supplementary ranges

Engineering Services, Motorsports, and Special Applications

Large Engine Components (BU1)

Small Engine Components (BU1)

Industrial Filtration (BU2)

Actuators and Heaters (BU2)

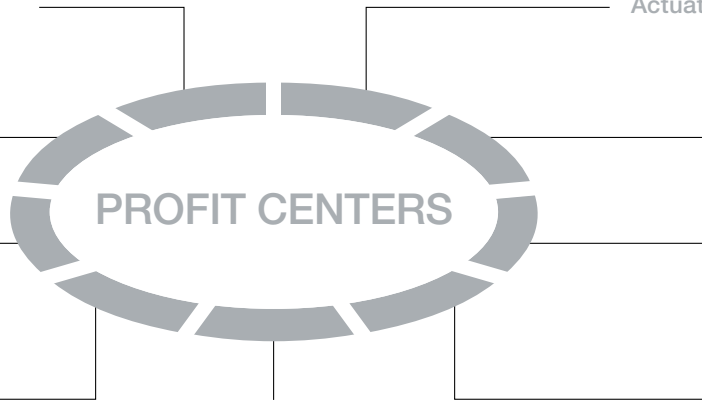
Electric Drives and Applications (BU2)

Industrial Thermal Management (BU3)

Control Units (BU3)

PROFIT CENTERS

Front-end Modules (BU3)



ENGINE SYSTEMS AND COMPONENTS BUSINESS UNIT //

LOWER FUEL CONSUMPTION, HIGHER TECHNICAL REQUIREMENTS

The world market for combustion engines is growing. At the same time, the technical requirements for engine design are increasing due to stricter CO₂ specifications. Our Engine Systems and Components business unit is benefiting from this trend and was able to boost global sales in 2014 after adjustment for exchange rate effects. Through the significant contribution of our pistons, valve train components, and other engine parts, modern engines are able to generate ever higher specific outputs and consume less fuel at the same time.

Innovation as growth engine

Steel pistons for passenger car diesel engines represent one fundamental innovation. In 2014, we were the first supplier to manufacture them in series production. Since steel pistons are higher in strength than aluminum pistons, they allow for a lower overall height, which in turn leads to lower friction and thermodynamic advantages. We therefore expect a significant growth in quantities for passenger car diesel engines in the

coming years. We have developed a new generation for commercial vehicle engines that have been relying on steel pistons for a long time. This allows for an even lower overall height and consequently contributes to reduced consumption.

In parallel, we are working to improve the aluminum piston. Using a new casting method, we are able to reinforce the area of the piston that is particularly stressed by high temperatures during combustion: the bowl rim. A piston, which has its bowl rim fitted with fiber reinforcement, has also been tested and already manufactured in small lots.

Due to the trend toward maximum specific output, other modern engine components also need to be able to withstand ever higher temperatures. Valves, valve seat inserts, and valve guides are only one example. With new materials or innovative coatings, we were able to master this technical challenge and increase our market share. New coatings on piston rings that considerably reduce wear also play an important role in our success.



Global upturn

Since legislators in Asia and North America will be regulating CO₂ emissions as strictly as in Europe in future, the demand for technically demanding engine components is growing there as well. For these markets, we will therefore increasingly produce assembled camshafts that weigh considerably less than cast or forged shafts and can furthermore be precisely designed to meet the respective requirements. Since we have been manufacturing assembled camshafts also for commercial vehicles in Europe since 2012, we were able to win new customer orders for this application.

All in all, our Engine Systems and Components business unit is growing in all world regions with the exception of South America: owing to the weak domestic market and currency devaluations, we were not able to achieve the same level of sales in this region as in the previous year.

The business unit experienced its strongest sales growth in Asia, most notably in China. However, the weakness of some national currencies in Asia, particularly the Japanese yen, has also led to a lower nominal growth rate.

High investments

In 2014, the start-up of passenger car diesel steel pistons led to a significant increase in investments in Germany. Foreign locations also accounted for a large proportion of the investments, particularly in China, where we are benefiting from the strong demand for passenger cars. Furthermore, we had to manage the worldwide expansion in capacity for modern components such as assembled camshafts and particularly temperature-resistant valves. We have also increased the level of automation in several emerging markets in order to counteract rising personnel costs.

Cost position further improved

Almost all of the automobile manufacturers continued, or even stepped up, their cost optimization programs in 2014. By reorganizing European piston manufacturing and undertaking many efficiency measures in all 51 plants of the business unit, we will be in a position to continue offering the best price/performance ratio in our market segment.

Outlook

The fundamental growth driver for our business unit is the increasing demand for particularly fuel-efficient engines—a trend that will continue unabated in 2015 and is additionally confirmed by a large number of new orders. To what extent individual countries such as India, Russia, or Thailand will recover from their current market weakness remains uncertain. However, the consistent focus on high-tech systems and components provides further opportunities for growth in the overall stable global economy that is expected.



DEVELOPMENT OF ENGINE SYSTEMS AND COMPONENTS BUSINESS UNIT //

Business year	2014	2013
Consolidated sales *)		
Business unit	2,757	2,727
Share of group sales	2,530	2,494
Capital expenditure on tangible fixed assets *)	179	173
Production locations	51	51
Headcount (as at Dec. 31)	29,073	29,568

*) million EUR

FILTRATION AND ENGINE PERIPHERALS BUSINESS UNIT //

SUCCESSFUL MODULE STRATEGY

Long engine life and clean combustion—this is what the MAHLE Filtration and Engine Peripherals business unit is offering with its wide range of products. Great emphasis is placed on the management of air, fuel, and oil—a task that is becoming ever more challenging due to the increasing number of engine variants. MAHLE can serve a broad spectrum of customer requirements through its consistent development of modular components.

Responding to diversity

Highly individual body shapes, different power classes, and varying regional emission legislation are the main reasons why peripherals often differ even when the base engines are identical. As a result of intense global competition in the automotive industry, the number of different models keeps on growing. In order to ensure economical production at a high rate of variant diversity, we have systematically developed modular components for all of the major product groups over the past years.

One example of this strategy is a cylinder head cover with integrated oil mist separation, which we developed for a commercial vehicle engine platform. With just a few minor adaptations, it can be used in both four- and six-cylinder engine variants. This not only reduces development costs but also the expenses involved in tool manufacturing and production. The cylinder head cover also exemplifies how additional functions can be integrated into a necessary component by using innovative plastic processing methods. Since the cover also includes pressure regulation, clean gas supply, and part of the pneumatic line, there is no need for additional hoses.

Moreover, for a new generation of our oils pumps, we also use components from a modular catalog that has been specifically developed for this purpose. Customers confirmed the success of this concept by placing a number of orders with partially high quantities in 2014.

Production and productivity

The introduction of a new production system in 2013, which primarily benefits the European locations, has also enhanced the competitiveness of the business unit considerably. The basic idea is to delegate the responsibility for quality and productivity to the production line teams. The employees in the plants take care of the actual implementation of globally applicable standards for all processes, such as the material flow. Any disruptions that occur are immediately resolved by local shop floor management. This consistent approach of lean manufacturing already bore fruit in 2014 with a noticeable increase in productivity.

The optimization of processes has not just been limited to production but also incorporates product development. Developing new products faster and more effectively—and globally across all locations—is one of the main goals of our lean development concept. To this end, project teams have been restructured and given more decision-making authority at the same time. Furthermore, production managers are being involved in new developments at an earlier stage.

Growth in the East and the West

Our business unit has benefited disproportionately from the overall market growth in both China and the USA—to an extent that it more than offset the decline in sales experienced



in several markets such as Brazil and Japan, which was primarily due to currency devaluations and local market downturns. In Europe, the business development efforts for the new oil pump market segment had a negative influence on the overall positive trend.

Our considerable investments in Asia have opened up further growth potential. For instance, our new plant in Wuhan/China, where we manufacture filter systems and intake modules, has become a strategic bridgehead to western China, where economic development is currently being stimulated. The local production expertise in China has been strengthened by our own tool making facilities in Shanghai. Procurement costs and times have also been reduced as a result of in-house tool production.

China is not the only Asian country in which we have invested: at the end of the year we opened a new plant in Indonesia, whose main priority is to serve the local market. We will thus benefit from the expected growth of motorization in what happens to be the most populous country in Southeast Asia with 240 million inhabitants. At the same time, preparations commenced for plant expansions in India and Thailand. While both markets experienced a rather disappointing trend in the 2014 business year, dynamic growth is expected to return again in the long term. A new development center was opened in Seoul/South Korea in order to provide even greater proximity to Korean customers from 2015.

Outlook

In 2015, we want to take the next steps to becoming a supplier of future mechatronic components. In this regard, the activities of the Actuators and Heaters as well as Electric Drives and Applications profit centers need to be progressively linked with those of the core business. The relatively young business for innovative mechatronic products should make a positive contribution to the group's results of operations. These developments support the electrification of auxiliary components for combustion engines as well as the entire powertrain.

Not least, we will continue with the consistent implementation of our modular component strategy for all product groups and thereby facilitate the strategy of our customers.



DEVELOPMENT OF FILTRATION AND ENGINE PERIPHERALS BUSINESS UNIT //

Business year	2014	2013
Consolidated sales *)		
Business unit	2,179	2,148
Share of group sales	1,981	1,946
Capital expenditure on tangible fixed assets *)	118	110
Production locations	32	32
Headcount (as at Dec. 31)	10,280	9,711

*) million EUR

THERMAL MANAGEMENT BUSINESS UNIT //

INTEGRATION AND GROWTH

After MAHLE acquired the majority holding in the Behr Group — which ranks among the leading global suppliers of vehicle air conditioning and engine cooling — in 2013, its activities were incorporated into the group as the Thermal Management business unit. The integration was fully completed during the 2014 business year. The common organization, standardized processes, and an innovation-oriented culture, in particular, ensure that our customers are offered solutions that reflect the comprehensive expertise of the entire company.

Fruits of the integration

The organizational integration not only includes administrative functions but also Advanced Engineering and Sales. This way, our business units can develop joint solutions to the challenges that confront the whole automotive industry: such as

meeting the increasingly stringent CO₂ directives while simultaneously reducing weight, cost, and assembly work. This is made possible by the functional integration of individual components in modules — for example, an intake module with integrated two-stage charge air cooler. The first series launch of such a module for gasoline engines is scheduled for the second quarter of 2015. Tests on a diesel engine, which were carried out together with Corporate Advanced Engineering, show considerable potential. At low engine loads, soot emissions can be reduced by up to 50 percent, whereas fuel consumption noticeably decreases at high loads. Another joint product — a controlled and therefore particularly low-loss water pump for commercial vehicle engines — was able to win over several renowned customers.

Currently still in pre-series development is a product that has all MAHLE business units working together: a system that converts the exhaust gas heat from commercial vehicles into forms of energy that can be used on board. The energetic “recycling” in the Rankine process increases the overall drive efficiency by several percentage points, which is why this technology is attracting great interest from our customers.

Reducing emissions

On account of the stricter emission standards, which are gradually coming into force around the world for both passenger cars as well as commercial vehicles, more and more engines are being equipped with exhaust gas recirculation (EGR) and exhaust gas turbocharging. The EGR and charge air cooler product groups for turbocharged engines have therefore contributed significantly to the overall growth of our business unit. Furthermore, we were able to secure numerous new orders in this product field, even in markets outside of Europe such as Korea or the USA.

Climate comfort in global demand

In both the Western industrialized countries and the rapidly growing Asian markets, even vehicles in the subcompact class are fitted with interior air conditioning. At the same time, the global sales of well-equipped premium automobiles rose significantly in 2014. Overall, the air conditioning segment is thus also showing noticeable growth. The continuing uncertainty regarding the conversion to the climate-friendly carbon dioxide refrigerant is having a negative impact on the European domestic market.



Growth and setting the course

As a whole, the worldwide development of our Thermal Management business unit clearly outperformed the global market for passenger cars and commercial vehicles. In Asia, growth was even almost twice as high as the increase in vehicle production, which is mainly attributable to the Chinese passenger car market. A significant improvement in revenue was achieved in 2014 with the restructuring of the European production locations, which commenced in the previous year. New plants in Slovakia and the Czech Republic are balancing out costs. The initiated merger of the neighboring Mühlacker and Pforzheim locations in Germany, which will be completed by the end of 2015, is also contributing in part.

We fully integrated the hitherto separately managed Thermostats and Valves profit center in our business unit in the fourth quarter of 2014. The aim of this organizational measure is to completely harmonize development and process standards, in order to further improve quality and offer our customers thermal management solutions from a single source.

During the 2014 business year, the purchase of materials and services that are not used in production, such as transport and energy, were procured for the first time through MAHLE Global Purchasing, resulting in significant cost reductions. Revenue was also boosted by intensifying in-house production in several areas, such as components for EGR coolers or larger plastic parts, which are manufactured using injection molding processes.

Outlook

In the 2015 business year, our Thermal Management business unit will continue to systematically develop its product portfolio in conjunction with Corporate Advanced Engineering and other business units in order to lay the foundation for further growth. One focal point will be the systems for indirect charge air cooling, which are primarily used in modern downsizing engines. Considerable research and development is also being undertaken to provide innovative air conditioning and cooling solutions for vehicles with alternative drive systems. This includes complete cooling systems for vehicles with plug-in hybrids, battery electric vehicles, and fuel cell drives. Not least, creating the conditions for further growth in Asia is crucial. The imminent opening of a new plant in Chengdu/China, which is considered to be the economic center for western China, represents an important step in this regard.



DEVELOPMENT OF THERMAL MANAGEMENT BUSINESS UNIT //

Business year	2014 ^{*)}	2013 ^{**)}
Consolidated sales ^{***)}		
Business unit	3,276	773
Share of group sales	3,122	747
Capital expenditure on tangible fixed assets ^{***)}	119	38
Production locations ^{****)}	36	27
Headcount (as at Dec. 31)	15,389	14,698

^{*)} incl. Thermostats and Valves profit center

^{**)} short business year October to December 2013 of the automotive business of the former Behr Group

^{***)} million EUR

^{****)} incl. locations of joint ventures

AFTERMARKET BUSINESS UNIT //

FROM SUPPLIER TO PARTNER

The MAHLE Aftermarket business unit is partner to repair shops and trade, offering first-rate service solutions with its special equipment and spare parts in original equipment quality. Our service offering includes training and technical support through our global network.

Expansion

We made significant progress with the continuous expansion of our product range in the 2014 business year. We used the MAHLE Group's existing expertise in the development of exhaust gas turbochargers to establish a comprehensive program for the repair-related exchange of parts. Since last year, we have been offering turbochargers for all of the current passenger car and commercial vehicle engines.

A major step for us is the "TechPRO" diagnostic device that we developed in collaboration with the Engineering Services, Motorsports, and Special Applications profit center, and which first came out on the North American market in 2014. In comparison with competing products, the analysis results are available much more quickly, thereby increasing productivity in the repair shops. We also launched a new generation of maintenance devices for air conditioning systems onto the market that offer the best in terms of technical and ergonomic aspects—and which have also been designed for use with new refrigerants.

In order to meet the growing demand, partly caused by the ever higher average age of vehicles, we expanded our logistics capacity in Germany, among other countries, in the course of 2014.

Worldwide presence

Wherever in the world you find passenger cars or commercial vehicles on the road, the Aftermarket business unit already has a local presence—not least thanks to the new construction of our logistics centers in Limeira/Brazil and Obninsk/Russia. We are clearly benefiting from the rising global vehicle population and were also able to increase our overall sales in 2014. However, the development of sales in the individual regions is being significantly influenced by exchange rate fluctuations. In some regions such as Russia, Ukraine, or the Near East, political crises have led to a decline in sales and thus an adverse effect on profit. In China, the world's biggest passenger car market, we were able to expand our business by nearly 20 percent. The European domestic market has also seen a positive development overall.

Outlook

In the 2015 business year, our Aftermarket business unit will continue to pursue the course it has set itself to become a solutions provider for repair shops.

DEVELOPMENT OF AFTERMARKET BUSINESS UNIT //

Business year	2014	2013 ^{*)}
Consolidated sales ^{**)}		
Business unit	836	805
Share of group sales	827	796
Capital expenditure on tangible fixed assets ^{**)}	6	29
Locations	22	23
Headcount (as at Dec. 31)	1,593	1,670

^{*)} consolidation of Behr Hella Service (BHS) joint venture as of October 2013

^{**)} million EUR



PROFIT CENTERS //

ENGINEERING SERVICES, MOTORSPORTS, AND SPECIAL APPLICATIONS

In pole position

In November 2014, MAHLE merged the formerly independently managed Engineering Services and Motorsports units into the Engineering Services, Motorsports, and Special Applications profit center. Customers are now receiving engine components, engines, and complete drive systems from a single source. In line with this adjustment, we are not just taking over the development but also the production right through to final assembly, if required.

A V12 engine for a British luxury sports car, forged pistons for a particularly powerful compact vehicle, or components

for the World Rally Champion racecar: the list of projects in the 2014 business year was as long as it was exciting. The growth of the profit center was mainly driven by the trend toward high-performance road vehicles from premium manufacturers. We were also able to acquire an important Japanese automobile manufacturer as a new customer for the motor-sport segment.

In future, we are expecting considerable growth on account of our engineering expertise, which we are not only expanding in quantitative terms but also to specifically complement our know-how in the areas of electrification and transmissions.

LARGE ENGINE COMPONENTS

Large engine expertise

The products of the Large Engine Components profit center are the driving force in large engines used in the fields of power generation, marine applications, and railroad transportation, to name but a few. The product range includes pistons, piston rings, piston pins, and cylinder liners. We apply our development competence to accompany manufacturers as a partner in the development of new engine generations.

The most relevant markets for large diesel engines are still suffering from subdued investments. The main reason for this

lies in the excess capacities in container and cargo ships that have been built up over the last decade. A further aspect is the economic weakness in the market for special vehicles in the mining industry as well as the oil and gas exploration sector. Even the previously extremely stable stationary gas engine market is showing regional deficiencies. Consequently, the profit center's sales declined in 2014 for the third year in a row. We are not expecting a market recovery in the short term. New emissions regulations for shipping, which we are technically prepared for, could act as a stimulant in the medium term.

SMALL ENGINE COMPONENTS

Growth in China

The Small Engine Components profit center supplies pistons, cylinders, and fully assembled cylinder units for hand-held power equipment ranging from chain saws to leaf blowers. But even motorcycles and recreational vehicles such as snow-mobles run more efficiently with our quality components.

The market for small combustion engines is shifting more and more toward Asia. Production and sales have therefore increased considerably at our Chinese location in Chongqing. Nevertheless, we had to register a decline in sales at our German and Austrian locations. The drop in sales is partly due to the fact that one key customer has extended its in-house production depth significantly. On a positive note, we have acquired three new customers in the motorcycles segment.

INDUSTRIAL FILTRATION

Industrial filtration in transition

The Industrial Filtration profit center manufactures filters and filtration systems for industrial installations. They ensure that air, liquids, and pastes exhibit the required purity for in some cases very sensitive manufacturing and processing methods. The range of applications extends from intake air filtration for modern gas-fired power plants through to extraction systems in food production, which is subject to extremely strict quality criteria. In the 2014 business year, the profit center's development of sales suffered from the overall subdued trend of the

world economy. At the same time, individual components fared better than complete systems for process filtration. As a result, the production locations in Hamburg/Germany and Stoke-on-Trent/Great Britain were shut down.

Industrial Filtration was assigned to the Filtration and Engine Peripherals business unit as of January 1, 2015, and we are hoping for enhanced synergies, particularly in the development of filter media. The realignment and focus on specific applications will be a key task for 2015.

ACTUATORS AND HEATERS

Innovations for high-efficiency engines

The Actuators and Heaters profit center combines the expertise for different mechatronic components; it is organizationally assigned to the management of the Filtration and Engine Peripherals business unit. These include electric wastegate actuators, which are used to control the boost pressure in turbocharged engines, as well as heating elements for fuel filters.

They are distinguished by a particularly compact design and are still more powerful than the previous generation in terms of control accuracy and speed. The modular design allows for an adaptation to different engine and charging concepts. Initial customer reactions indicate high market interest.

The completion of our new generation of electric wastegate actuators was a major highlight of the 2014 business year.

The profit center is also jointly working with Corporate Advanced Engineering on new mechatronic components for future high-efficiency engines. Through process improvements in production, we were able to noticeably raise both the quality and productivity of the core business.

ELECTRIC DRIVES AND APPLICATIONS

Growing mechatronics expertise

In September 2014, MAHLE acquired the Slovenian company Letrika, which manufactures electric motors, generators, and complete electric drive systems. Since October, the company has been incorporated as the Electric Drives and Applications profit center. The new profit center, which strengthens the MAHLE Group's expertise in mechatronics, is organizationally assigned to the Filtration and Engine Peripherals business unit.

Letrika has thus far supplied electrical components and systems primarily to customers outside the automotive industry. In conjunction with MAHLE's engine know-how, the opportunity is now given to provide automobile manufacturers with innovative components for efficient drive concepts. The focus is mainly on electrical auxiliary components, such as those used in hybrid vehicles. Since such components are not mechanically connected to the combustion engine, they operate at a very high rate of efficiency—and only when they are actually needed. Hence, the new member of the MAHLE family will be contributing to meeting the ever more stringent CO₂ thresholds in future. In addition, electric traction motors for small road vehicles and industrial applications are being developed and produced. MAHLE has thus become an important supplier of electric drive motors.



INDUSTRIAL THERMAL MANAGEMENT

Beyond the road

As part of a strategic realignment, the Industrial Thermal Management profit center is concentrating on the engine cooling and air conditioning of agricultural machines, buses, and special vehicles, as well as cooling systems for railroad vehicles and large engines such as those used in shipping. Comprehensive service activities round off the product portfolio. In the 2014 business year, the profit center registered substantial growth thanks to a number of large orders from China. MAHLE

delivered the cooling systems for converters and transformers in high-speed trains of the latest generation, which travel at speeds of up to 380 km/h. The Tier 4 Final emission standard, which is gradually coming into effect for agricultural machines, large engines, and railroad vehicles, is generating many new orders from North and South America, among others. With the innovative compact cooling systems from MAHLE in the context of charge air and exhaust gas recirculation, notably more waste heat can be discharged within a tight installation space.

CONTROL UNITS

Interface to the driver

The Control Units profit center represents a joint venture with Hella KGaA Hueck & Co. that develops and produces operating and control devices for vehicle air conditioning. These devices create the interface between driver and vehicle and must therefore meet the highest standards of design, functionality, and quality. Climate sensors and blower control units complement the product range.

sively on innovative control concepts as a partner to the automobile manufacturer. The opening of a new plant in Bulgaria in 2014 marked a significant step for the joint venture—also MAHLE's first location in this eastern European country. Furthermore, plans have been made for a plant expansion in China and a new construction in Mexico.

As the car is progressively being operated by means of input systems with complex sensor technology instead of individual mechanical buttons, Behr-Hella Thermocontrol is working inter-

Profit centers:

Engineering Services, Motorsports, and Special Applications
Large Engine Components
Small Engine Components
Industrial Filtration
Actuators and Heaters
Electric Drives and Applications
Industrial Thermal Management
Control Units
Front-end Modules

FRONT-END MODULES

Creating value

The Front-end Modules profit center represents MAHLE's proportionate share in HBPO GmbH, a joint venture between Hella KGaA Hueck & Co., MAHLE Behr GmbH & Co. KG, and Plastic Omnium S.A. The supplier develops and produces complete front-end modules as ready-to-assemble units that are delivered directly to the conveyor belt of the automobile manufacturer. In addition to the MAHLE components for vehicle air conditioning and engine cooling, these modules also include the bumper and the carrier as well as the complete headlight technology.

In the 2014 business year, HBPO benefited from the ongoing trend toward modularization in automobile manufacturing. More and more automobile manufacturers are opting for a professional partner who can cover the entire value chain, from development through to logistics. This trend put us in a position to win over a Japanese automobile manufacturer as a new customer. Moreover, the high-quality lighting and sensor technology for driver assistance systems is increasing the value of the front end, resulting in additional sales growth.

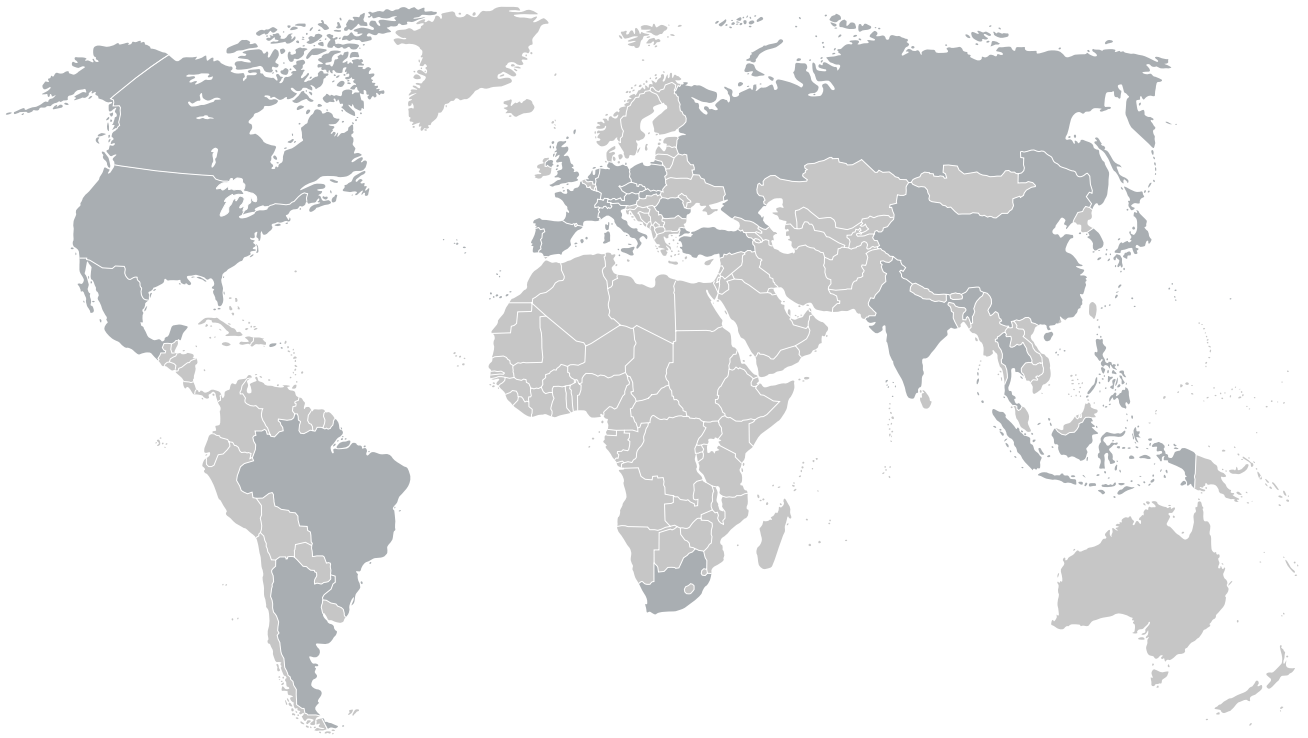
DEVELOPMENT OF ALL PROFIT CENTERS AND SERVICES //

Business year	2014 ^{*)}	2013
Consolidated sales ^{**)}		
Profit centers	1,870	785
Share of group sales	1,482	512
Capital expenditure on tangible fixed assets ^{**)}	70	50
Production locations	60	48
Headcount (as at Dec. 31)	9,899	6,452

^{*)} incl. Large Engine Components, Industrial Filtration, and Industrial Thermal Management profit centers, w/o Thermostats and Valves profit center

^{**)} million EUR

GREENFIELD OPERATIONS //



MAHLE opens new plants across the world

MAHLE understood early on that internationalization represents a unique opportunity and has established a global production footprint that is continuously being expanded. New locations were once again opened around the world in 2014—more than ever witnessed before in the long history of the company. In addition, work has begun on the construction of additional plants in Mexico and China; they will be commissioned in the course of 2015.

FILTRATION AND ENGINE PERIPHERALS BUSINESS UNIT

New filter plant opened in Wuhan/China

AUGUST 2014 – Wuhan is the capital of the Hubei province—a region in which the automotive industry is becoming a mainstay of the economy with ever more international automobile manufacturers setting up production plants there. In the new MAHLE filter plant, air intake modules, plastic cylinder head covers, oil mist separators, and oil coolers are being manufactured for locally based automobile manufacturers—such as Nissan, DPCA, GM, Honda, Volvo, Suzuki, Renault, Fiat, and Chang’an. Around two million products are expected to be delivered each year, generating sales of over EUR 120 million. MAHLE will have invested roughly EUR 11 million by the time the project is completed. MAHLE Filtration Systems (Hubei) Co., Ltd., the fifth Chinese location of the Filtration and Engine Peripherals business unit, will then be the biggest MAHLE plant in central China.



PLANT AREA	INVESTMENT	EMPLOYEES
33,000 sqm	EUR 11 million	Currently 90

MAHLE now also present in Indonesia

OCTOBER 2014 – MAHLE has opened a plant in Cikarang near Jakarta with a production area of 4,300 square meters and 1,300 square meters of office space—the entire plant premises comprise 29,000 square meters and offer plenty of room for future expansion. Air intake modules, air ducts, and cylinder head covers are manufactured here—primarily for MAHLE’s Japanese key customers at first. In 2013, approximately 1.2 million vehicles were produced in Indonesia; this figure is expected to rise to 1.7 million by 2020. Numerous internationally operative automobile manufacturers are represented locally. Pt. MAHLE Filter Systems Indonesia will participate in this strong growth trend thanks to its new plant.



PLANT AREA	INVESTMENT	EMPLOYEES
29,000 sqm	EUR 6 million	Currently 24

Second filter plant in Mexico

APRIL 2015 – MAHLE will open an additional filter plant in Celaya/central Mexico in April 2015. Since additional equipment still needs to be installed, the start of production has been announced for May and the first deliveries for June 2015. The total investment amounts to around EUR 16 million; it includes the property with more than seven hectares, the building with a floor area of about 18,000 square meters, and basic production facilities. Sales of EUR 8.3 million have been budgeted for 2015. The number of employees is expected to rise from currently 100 to around 450 by 2019. After the transfer of products and completion of selected program launches, sales of approximately EUR 90 million are estimated.



PLANT AREA	INVESTMENT	EMPLOYEES
72,000 sqm	EUR 16 million	104; capacity 450

THERMAL MANAGEMENT BUSINESS UNIT



PLANT AREA	INVESTMENT	EMPLOYEES
44,000 sqm	EUR 35 million	65; capacity 400

Plant in Shenyang/China is commissioned

AUGUST 2014 – Just one day after the opening of the new filter plant in Wuhan, MAHLE has yet another ceremony on its agenda: in Shenyang, the capital of the Liaoning province in northeast China, where numerous automobile and engine manufacturers are located, Shanghai Behr Thermal Systems Co., Ltd. (SBTS), a joint venture between MAHLE Behr GmbH & Co. KG and Shanghai Sanden Behr Automotive Air Conditioning Co., Ltd., has opened another plant. It is the fifth production location of the Thermal Management business unit in China and is specialized in the manufacture of products for vehicle air conditioning and engine cooling. Following the ramp-up and investments amounting to around EUR 35 million, air conditioners and engine cooling components are manufactured in the new plant. The primary goal is to participate in the emerging market and its further development in the north of the country.



PLANT AREA	INVESTMENT	EMPLOYEES
36,000 sqm	EUR 25 million	400

Additional plant in Chengdu/China

JUNE 2015 – In mid-2015, SBTS will officially open its first plant in Chengdu/southwest China, which is in the immediate vicinity of the Volkswagen and Volvo plants and not far from a Ford production location. Air conditioners as well as engine cooling components and systems will be manufactured there; part of the production area is reserved for Dongfeng Behr Thermal Systems Co. Ltd. (DBTS), a joint venture between MAHLE Behr GmbH & Co. KG and Dongfeng Motor Company Co., Ltd. The assembly of air conditioners already started at the beginning of 2015.



PLANT AREA	INVESTMENT	EMPLOYEES
60,000 sqm	EUR 53 million	370

New plant in Mexico under construction

JULY 2015 – The second plant in Mexico of the Thermal Management business unit is being erected in close proximity to the Engine Systems and Components business unit plant as well as to an already existing plant of the Thermal Management business unit in Ramos Arizpe; construction began in July 2014. In the first construction stage, two NOCOLOK furnaces are installed in the building, in addition to seven of eventually 19 injection molding machines and eight assembly lines. The plant will start series production in July 2015; the completion of all construction activities is scheduled for 2016. The product range will include air conditioners as well as engine cooling components and systems. The new plant will bolster MAHLE's competitiveness in the North American market. It will supply automobile manufacturers in the United States and the rising number of manufacturers who are producing directly in Mexico.

AFTERMARKET BUSINESS UNIT

New distribution and logistics center in Limeira/Brazil

MARCH 2014 – MAHLE is opening the new construction of a distribution and logistics center only seven kilometers from the former location in Limeira/Brazil. The storage capacity of the Aftermarket business unit will be more than doubled in South America with the installation of 32,000 square meters, which required the investment of approximately EUR 14 million. The new distribution center is not only more spacious but also more efficient. Now there are 23 commercial vehicle docks in place instead of just five, and processes are also being optimized. This leads to a considerable reduction in processing times from receipt of order through to shipping, which in turn improves the customer service experience. With the new center, MAHLE is responding to the addition of new products, the considerable growth in sales figures, and the increasing scope of supply.



PLANT AREA	INVESTMENT	EMPLOYEES
32,000 sqm	EUR 14 million	Currently 344

MAHLE Aftermarket is now also present in Russia

JUNE 2014 – MAHLE is meeting the growing demand for quality spare parts in Russia, Kazakhstan, and Belarus with the opening of a new distribution and logistics center located in Obninsk, south of Moscow, and is thus strengthening its presence in the eastern European automotive aftermarket. With its warehouse measuring 10,400 square meters and 1,800 square meters of office and training space, the new center initially employs 41 people. A local customer service organization has been specifically established to guarantee our customers rapid access to MAHLE products and services. MAHLE can now precisely align its range to the increasing demand of customers, while constantly ensuring optimal supply quality and shortened delivery times.



PLANT AREA	INVESTMENT	EMPLOYEES
12,200 sqm	EUR 11 million	Currently 41

RESEARCH AND DEVELOPMENT

Tech Center in China expanded

NOVEMBER 2014 – The third expansion of the research and development center in Shanghai/China has been completed. With a developed area of more than 35,000 square meters, it is now the largest MAHLE Tech Center in Asia. Founded in April 2006, the Shanghai location develops piston systems, cylinder components, as well as valve train, air, fuel, and oil management systems. The location is also the headquarters of MAHLE in China—home to central functions such as sales, purchasing, HR, IT, and finances. In addition, a Bosch Mahle Turbo Systems (BMTS) production plant, as well as production areas for industrial filtration and the manufacturing of tools for the Filtration and Engine Peripherals business unit, will be opened on the campus. BMTS—a 50/50 joint venture between MAHLE and Bosch—will manufacture gasoline engine exhaust gas turbochargers for international and local customers in its first plant in China.



PLANT AREA	INVESTMENT	EMPLOYEES
35,500 sqm	EUR 10 million	410; capacity 1,000

REFERENCES //

All automobile and engine manufacturers worldwide are customers of MAHLE. Here are some of our original equipment references.

A	ABB	CNHTC	FIAT
	AGCO	Continental	Force Motors
	Alfa Romeo	Crown	Ford
	Alpina	Cummins	Freightliner
	Alstom	D	Fuso
	AMG	Dacia	G
	Ashok Leyland	DAF	Gamesa
	Aston Martin	Daihatsu	GAZ
	Audi	Dalian Diesel	GE Jenbacher
	AvtoVAZ	Detroit Diesel	GE Transportation
B	Bajaj	Deutsche Bahn	Geely
	Beiqi Foton	DEUTZ-FAHR	General Dynamics
	Bentley	DMG Mori Seiki	General Motors
	BMW	Dodge	GETRAG
	Bombardier	Dongan	GMDAT
	Bosch	Dongfeng	Govecs
	Brilliance	Doosan	Great Wall
	Bucher	Doosan Infracore	H
	Hydraulics	DPCA	Harley-Davidson
	Bugatti	Ducati	HATZ
	Buick	E	Henan Diesel
	BYD	EADS	Hindustan Motors
C	Cadillac	EDF	Hino
	Case	Eicher Motors	Hitachi
	Caterpillar	Embraco	Honda
	Changan	ENERCON	Husqvarna
	Chaoyang Diesel	Escorts	Hyundai
	Chery	Eurocopter	Hyundai Heavy Industries
	Chevrolet	EvoBus	I
	Chrysler	E-Z-GO	Infiniti
	Citroën	F	International
	CLAAS	FAW	Irisbus
		FAW-Volkswagen	Isuzu
		Fendt	Iveco
		Ferrari	

J	Jaguar	N	NACCO		SNCF
	JCB		Navistar		SsangYong
	Jeep		Neoplan		Steyr
	JMC		New Holland		Stihl
	John Deere		Nissan		STX
	KAESER	O	Opel		Subaru
K	KOMPRESSOREN		Otosan		Suzuki
	KAMAZ	P	Paccar		SWW
	Kenworth		Perkins	T	Tata Motors
	Kia		Peterbilt		Tecumseh
	Kirloskar		Peugeot		Teledyne Continental Motors
	Komatsu		Piaggio		Temsa
	Krauss Maffei		Polaris		Terex Demag
	Kubota		Pontiac		Tognum
L	Lamborghini		Porsche		TOTAL
	Lancia		Proton		Toyota
	Land Rover	Q	Qingling Motors		Toyota BT
	Lexus	R	Renault		Triumph
	Leyland Motors		Renault Trucks	U	UD Trucks
	Liebherr		Renk	V	Valtra
	Linde		Rheinmetall		Vauxhall
	Liuji		Rolls-Royce		Vestas
	Lycoming Engines		Rolls-Royce Power Systems		VM Motori
M	Mack Trucks		Rotax		Volkswagen
	Mahindra & Mahindra	S	SAIC		Volvo
	MaK		SAME		Volvo Penta
	MAN		Samsung		Volvo Trucks
	Manitowoc		SBB		Vossloh
	Maruti Suzuki		Scania	W	Wärtsilä
	Maserati		Scion		Waukesha Engine
	Massey Ferguson		SEAT		Weichai Power
	Mazda		SEMT		Wuxi Diesel
	McLaren		SGM	Y	Yamaha
	Mercedes-Benz		SGMW		YaMZ
	Mercury		Shanghai Diesel		Yangzhou Diesel
	Mini		Siemens		Yanmar
	Mitsubishi		Sinopec		Youngman
	Mitsubishi Heavy Industries		Sisu		Yulin Diesel
	MTU		Škoda		Yunnei
	MWM		Smart	Z	ZF
	MWM International				ZMZ

CORPORATE CITIZENSHIP //

The MAHLE Group combines long-term entrepreneurial thinking with social engagement. The MAHLE Foundation uses the dividends of the group to sponsor a multitude of social and cultural projects around the globe.

Early on, the company founders, Hermann and Dr. Ernst Mahle, associated corporate success with social responsibility. In 1964, they transferred 99.9 percent of their ownership of the company to the MAHLE Foundation, which has been continuing the founders' mission of social engagement ever since. Each year, around 150 projects are supported in the areas of health care, science and research, youth development and welfare, training, and biodynamic farming. At the same time, many MAHLE employees get involved in numerous initiatives and projects to promote social interaction, education, and the fight against poverty and disease.

Promoting holistic medicine

As both shareholder and largest sponsor, the MAHLE Foundation has provided substantial support to the Filderklinik near Stuttgart since its foundation. The biggest anthroposophic acute care hospital in southern Germany combines cutting-edge conventional medicine with complementary methods. Other specialist fields include perinatal medicine, integrative oncology, and the internal medicine department with its innovative methods for gastroenterology and abdominal surgery.

The department of pediatrics at the Filderklinik also has an excellent reputation in neonatology, infant and child psychosomatics, and neuropediatrics. Their integrated holistic approach integrates methods of treatment such as music therapy, eurythmy therapy, orthopedagogy, and psychological psychotherapy. Parents have an important role to play in pediatrics at the Filderklinik: advising and guiding them in pedagogic, nursing, and medical issues is as much a part of the therapeutic concept here as the opportunity for parents to be with their children around the clock in order to promote the healing process.

Shaping the future of education and nursing

The Private Nursing School at the Filderklinik has made the vision of modern nursing training a reality through the "Nursing-Life" pilot project. It aims to provide nursing training that incorporates a broad basic qualification in caring for children, the sick, and the elderly, as well as caters to the growing contemporary demands of nursing.

Helping to heal

In India, the MAHLE Foundation is backing the "Shining Eyes" project, which provides medical aid to the extremely poor population of West Bengal. The Bolpur children's clinic takes care of destitute families from the surrounding Santhal villages who are suffering from respiratory and diarrheal diseases. In view of the prevailing malnutrition, this can quickly become life-threatening. Around ten percent of the village children are infected with tuberculosis. With the contribution of the MAHLE Foundation, the children's clinic has set up an X-ray unit for local diagnosis of tuberculosis. Starting therapy quickly can stem the spread of tuberculosis, which in turn reduces infant mortality considerably.

Overcoming social barriers

The MAHLE Foundation is endorsing the "Aladdin" children's and youth club in the Kreuzberg-Friedrichshain district of Berlin. Here, around 20 children aged between six and 14 years receive educational guidance and support on a daily basis. Many come from families with a migration background and have language difficulties. At Aladdin, caregivers help them to overcome these difficulties and cope with educational requirements, thereby encouraging them to act independently as well as in a team.

Taking responsibility, showing solidarity

We also have a strong social commitment to the regions in which we operate as a company: for years, MAHLE and its employees worldwide have been dedicated to supporting social interaction, health promotion, education, and the fight against poverty.

An outstanding example of this was the considerable donation the MAHLE Group made in 2014 to the district hospital in Krotoszyn/Poland, home to the largest MAHLE location in Europe. Thanks to the support of the MAHLE Group, the hospital was able to buy a new 16-slice computed tomography scanner. The CT scanner that was previously being used was outdated and required a lot of maintenance. With the new computed tomography scanner, the smooth operation of the

hospital, which is of utmost importance to the entire region and its inhabitants, is guaranteed and the range of medical services offered can be expanded.

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 regularly takes part—through the active participation of employees and through donations—to further advance the development of improved treatment options for diabetes. Our location in Murfreesboro/Tennessee focused this year on combating breast cancer by organizing fund-raising campaigns and offering targeted medical checkups. In Charleston/South Carolina, MAHLE employees collected healthy food and beverages and handed them over, along with a corporate donation, to the Lowcountry Food Bank to help those in need.

In Durban/South Africa, MAHLE is taking part in the “Focus on iThemba” (in English: “hope”) educational project that promotes the schooling and further education of orphans; some of them are subsequently taken on by MAHLE as employees.

Exemplary commitment in Brazil

In 2007, the establishment of the Brazilian foundation subsidiary Instituto MAHLE, based in São Paulo, was a milestone in the history of the MAHLE Foundation. Projects to humanize medicine and establish anthroposophy in the state health system are central to the foundation’s work. A notable achievement resulting from these efforts is the state recognition of the Casa Angela birthing clinic, which lies in the middle of a São Paulo slum and is sponsored by Instituto MAHLE.

The MAHLE locations in Brazil and their employees have also been involved with numerous social projects for years. MAHLE Formare School is one of the 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, around 1,250 young people, most of them coming from socially disadvantaged families, have made successful transformations: 75 percent subsequently found a job, many of them at MAHLE.

MAHLE has also helped to improve the living conditions of the “Vergel” agricultural community near the Mogi Guaçu location. Around 100 small farmers have joined together in a cooperative. 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. As a consequence, they now supply the MAHLE canteen with organically grown produce. The further development of the cooperative is also being



Thanks to a donation from MAHLE, the hospital in Krotoszyn/Poland now has a modern computed tomography scanner.

actively promoted through the free computer courses given by MAHLE IT professionals in their spare time. In order to improve living and working conditions for young farmers in particular, young people aged between 14 and 17 are being comprehensively trained in all aspects of biodynamic farming as part of the “Projeto Jovem Agricultor do Futuro.” The project is funded by the National Rural Apprenticeship Service in collaboration with the MAHLE location in Mogi Guaçu.

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 exchange between Brazil and host countries—the ensemble has also played several times at our MAHLE INSIDE corporate exhibition at the Stuttgart location.

Social engagement that deserves recognition

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 old people’s 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 engagement is an integral part of the MAHLE culture. The MAHLE Management Board would like to express its heartfelt thanks and high regard to all the dedicated helpers for their commitment.

HUMAN RESOURCES //

Our employees are the key to our success. Our personnel strategy aims to attract, promote, and retain the best talent worldwide.

As at the reference date of December 31, 2014, there was a year-on-year increase of 2,400 in the number of MAHLE employees worldwide to 66,234 (+3.8 percent). The increase compared with the previous year is predominantly due to the acquisition of a majority stake in the Slovenian group Letrika with about 2,500 employees. Without taking this acquisition into account, our headcount has remained relatively unchanged.

The acquisition of Letrika has had a particularly strong impact in Europe with the addition of a total of 2,192 employees and our first locations in Slovenia, Bosnia and Herzegovina, as well as Belarus. In France, the number of employees decreased by 265 on account of the plant closure in Colmar. As in the previous year, personnel adjustment measures were necessary in Turkey and Great Britain because of the decline in sales. In contrast, an increase in call-off figures saw 101 new employees being recruited in Romania and 141 in the Czech Republic. The number of employees in Germany remained relatively stable at 14,179. In order to temporarily stave off excess capacity in the 2014 business year, we had to resort to the instrument of short-time work at several locations in Germany, Italy, and Spain.

From an overall perspective, the headcount in North America has increased slightly (roughly two percent). The sustained recovery of the automotive industry in the United States is reflected in the increased number of employees. In 2014, production of assembled camshafts commenced in Morristown/USA and some 30 new employees were hired. The expansion of the Tech Center in Farmington Hills in 2013 resulted in around 35 people being recruited in 2014. In South America, however, the number of employees had to be reduced by about 800 in comparison with the previous year because of the market slowdown, which affected demand for both passenger cars and commercial vehicles in the MAHLE locations.

In the Asia/Pacific region, the number of employees rose by more than 1,000 (roughly eight percent). The acquisition of Letrika had an impact on China, and new jobs were created as a result of the construction of the new location in Wuhan

(Filtration and Engine Peripherals business unit) and the further expansion of the MAHLE Tech Center in Shanghai.

Standardization of working conditions

In the 2014 reporting year, particular emphasis was placed on the systematic operational integration of the Behr units, which had been consolidated in the previous year. The organizational and physical consolidation of various central divisions such as Sales, IT, HR, and Finance in all of the regions was a milestone in the integration. Under the newly created working conditions, we also pressed ahead with the harmonization of essential business processes.

In-house training and further education

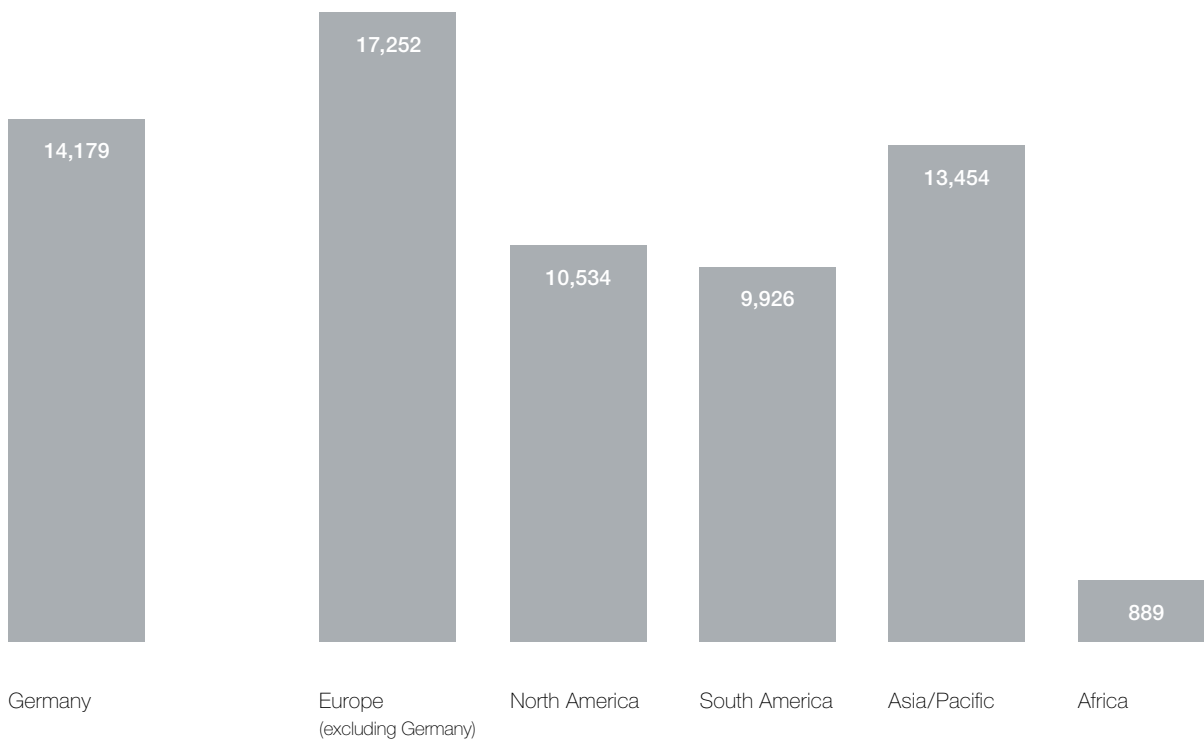
Training and further education take a high priority in MAHLE's personnel development. With our comprehensive catalog of training measures as well as national and international personnel development programs, we address all levels of the company. For instance, in the German MAHLE Group companies, a total of 419 apprentices were trained in 19 occupational profiles, and 203 students in cooperative studies were trained in ten courses of study in 2014. Vocational training is also firmly established in Austria, where 101 people were trained in eight different occupational profiles at MAHLE in 2014. Consequently, demand for qualified specialists in production can be met internally to a large extent. The potential shortage of specialists is also being proactively addressed by means of special demand-based programs in other MAHLE Group locations.

In Ramos Arizpe/Mexico, an internal training program geared toward MAHLE specific requirements was already introduced 15 years ago. Since then, around 600 employees have successfully completed the vocational training program. On account of its success, the program was also adopted for the Aguascalientes/Mexico location in 2013, with an additional 30 production employees completing the training program each year. A comprehensive two-year training program in South Africa is also helping to cover the demand for qualified specialists.

66,234

EMPLOYEES WORLDWIDE //

As at Dec. 31, 2014



Experience abroad and mobility as a career element

In order to strengthen our position in international markets and open up new areas of growth, we need people who think outside the box and work together to advance the right ideas. Fostering mobility through international assignments is therefore an important building block of our personnel strategy. The introduction of a globally binding mobility policy in 2013 established uniform framework conditions across the group for the worldwide assignment of employees.

In the year under report, experience abroad was also defined as an integral career building block of MAHLE executives. A professional assignment abroad enables employees to gain experience and valuable expertise as well as to further expand their internal networks. At the same time, it provides the company with a larger pool of qualified employees for leadership and project tasks.

MAHLE is highly committed to promoting foreign assignments, even during training and the first few years of work. For management trainees, an assignment in a foreign MAHLE company is an integral part of the training. Students of cooperative studies also have the opportunity to get to know MAHLE locations around the globe and gain intercultural experience as part of their practical training. Around 70 percent of the MAHLE students of cooperative studies in Germany had undertaken an overseas placement by the time of their graduation in 2014.

Moreover, in its capacity as an employer and training center, MAHLE offered ten apprentices in Germany practical experience abroad through the "Leonardo da Vinci Mobility" subsidy program. The project gives young people the opportunity to undergo part of their training abroad and thus enhance their intercultural, linguistic, and social skills.

Global development of professionals

Our goal is to meet the demand for executives internally to a large extent. A multistage development program therefore systematically prepares MAHLE employees and executives to take on new or enhanced areas of responsibility within the company. The predominantly international programs are aimed at high-potential employees as well as specialists and executives. Since the various management levels entail different challenges, MAHLE offers programs in leadership and management that are tailored to the individual levels. In 2014, the regional Management Development Program (MDP), which is aimed at the Department Manager level, was conducted in Asia for the first time and is now being used in all regions of the MAHLE Group.

A thorough qualification survey of all project managers in the MAHLE Group was also conducted on a global level in 2014. The goal is to train and further develop them in specific modules so they can deal with the increasingly complex tasks of project management.

Stronger social media presence

We are continuing to expand our internet presence in order to ensure access to the best talent in our core markets. By partaking in new social media activities, we are entering into intensive dialog with employees and potential applicants. Our Facebook page, which went live in March 2014, is raising our popularity among the younger generation in particular—students, graduates, and young professionals—and arousing their interest through communication at eye level.

In the race for the best: Formula Student and other recruitment measures

Attracting highly qualified and motivated junior employees is of utmost importance for the success of an internationally active company such as MAHLE. We achieve this by participating in career fairs and cooperating with universities and institutions of higher education. MAHLE has long been successfully committed to supporting the global engineering competition Formula Student, which we sponsor in various countries, acting as one of the main sponsors in Germany. Through this competition, 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 that we want to attract in order to secure the future of the MAHLE Group. Globally, we sponsor 13 Formula Student teams in Europe as well as North and South America. Special workshops conducted by our Tech Center in Jundiaí/Brazil, in cooperation with the universities UNICAMP-Campinas in São Paulo and USP UNIFEI in Itajubá, strengthen our contact there. The Formula Student team members are thus able to build on their skills and competences, the racing teams become professionalized, and the bond with MAHLE is strengthened.

Special cooperation arrangements are in place with other selected key universities in Europe, the USA, and Asia. Our experts hold technical lectures and MAHLE awards scholarships to support young academics and MAHLE Performance Awards for special performances. In North America, for example, we work closely with the University of Michigan, Kettering University, and the Lawrence Tech University in order to offer graduates in engineering and information technologies attractive career prospects.

MAHLE has been involved in the global engineering competition Formula Student for many years and in various countries, and is one of the main sponsors in Germany.



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 young women 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.

Under the motto "MAHLE After Work," we hosted the first MAHLE career day aimed at people with professional experience in Stuttgart in 2014. Thirty-six selected professionals from the areas of research and development as well as technical sales had the opportunity to get to know MAHLE as an employer through exclusive one-to-one meetings with our professionals.

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.

When competing for the best talent, professional application management is just as much a decisive factor as taking the right approach. For this reason, the group-wide online recruitment portal "eMploy" was rolled out further in 2014. It facilitates efficient application processing in a global system and provides immediate feedback to candidates in the European locations as well as in North and South America.

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 the employees' awareness regarding 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 particular significance to awareness, prevention, and personal responsibility. Health days at the MAHLE locations in numerous countries serve to familiarize employees with healthy diet and lifestyle concepts. In Brazil, a prevention program to combat drug abuse, involving theater performances and panel discussions with experts, is used to explain the risks and effective preventive and treatment



In Mogi Guaçu/Brazil, gymnastics keeps the employees feeling fit and healthy.

measures to our employees and their families. 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. The in-house day-care center with 40 places in Stuttgart/Germany makes an important contribution to easing the pressure on parents. To assist with childcare during the school holidays, MAHLE provides holiday programs for employees' children in Germany, Poland, Mexico, and other countries.

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. We would also like to extend our thanks to the employee representatives for being exceedingly open to dialog and for their forward-thinking cooperation characterized by mutual respect.

QUALITY //

Innovative, defect-free, reliable products and systems ensure our long-term success. Group-wide quality management enables us to continuously improve the process quality.

The increasing complexity of mobility systems, ever more demanding product specifications, and highly dynamic global markets call for the continuous further development of our products and processes in terms of qualitative and economic aspects. The improvement actions cover all areas of the value chain—from purchasing to product development and manufacturing through to the assembly of our products and systems, as well as their subsequent use in all variants of the mobility chain.

Compact 3D coordinate measuring devices, among other things, are used to test the quality of steel pistons for passenger cars.



In order to consolidate our position as a top-3 systems supplier in the automotive industry, we need to guarantee quality of the highest level at all times, all over the world. Highly qualified employees and smooth processes of the highest technological level are the prerequisites—because the zero-defect principle does not tolerate any deficiencies. We motivate our employees from all divisions and at all levels to engage in ongoing quality improvement measures. This will enable us to continue inspiring our customers with high-quality products.

Further enhancing customer satisfaction

MAHLE measures the quality of its series supply by assessing the number of customer complaints and the amount of defective products supplied. As in previous years, we were able to reduce both factors once again in 2014. During the 2015 business year, we will be working on even shorter and more effective control cycles within the scope of our group-wide IMPACT improvement program in order to optimize the flow of information and thus further improve the quality of our products.

Quality planning as cornerstone of zero-defect principle

The planning and tracking of product and process quality characteristics have already been fully integrated in the product development process. Potential defects are recognized early and thus avoided from the outset; this also applies to supplied parts. Our series production is also safeguarded by an effective quality management system, which immediately identifies defects and uses a standardized problem solving procedure to process and eliminate them with lasting results.

Our quality planning and its adaption to new requirements is a cornerstone of our zero-defect principle. By constantly improving our methods for failure prevention, we can ensure smooth product launches for our customers even more effectively.

Continuous improvement process updated

The continuous improvement process is a key element of MAHLE's quality management. It endeavors to impel employees to make continuous improvements in their area of responsibility. Within the scope of the "Quality Management MAHLE – Behr"

integration project, these processes were scrutinized in both companies. It quickly became evident that they complement each other perfectly, both in their definition and in the experiences gained. On the basis of the results, the continuous improvement process (CIP) was updated and further developed in the year under report.

Quality targets as integral component of the business plan

The definition of quality targets is an integral component of the annual business plan. Introduced in 2013, the completely systems-based planning of quality targets has been optimized in some segments according to user requirements. Quality targets are specified top-down and then consolidated bottom-up. The MAHLE Group uses a uniform standard, the so-called master plan, for the planning and controlling of required actions.

Defined quality assurance in all business processes

Quality management is integrated into all business processes: Each business process is assigned a business process owner who is responsible for the respective performance, which he evaluates once a year using the MAHLE maturity model for business processes. With a balanced scorecard, the owner formulates the targets for his area and plans the necessary improvement actions for the following business year. The ongoing development of our business processes is a fundamental prerequisite for us to be able to meet the ever-increasing demands of our customers with innovative, defect-free, and reliable products.

Excellent quality

We again received numerous awards from our customers for the high quality of our products and systems in 2014. Prizes were awarded to the MAHLE Group as well as to individual MAHLE locations in Asia, America, and Europe. The list of awards is extensive (an excerpt can be found in the annual chronicle of this Annual Report)—and we are delighted with each and every one of these prizes. They are a confirmation of our good performance—and at the same time an incentive to become even better.



Mounting a regulator on a PTC heater with integrated leak testing

ENVIRONMENT //

Through provident planning and continuous development of our installations and processes, we ensure safe working conditions and reduce the environmental impact at our locations worldwide.

Consistent, group-wide environmental management

Energy management, energy efficiency, and the associated CO₂ savings are a key issue in the area of Health, Safety, and Environment (HSE). We use the specifications of globally applicable standards such as ISO 50001, ISO 14001, and the EMAS European standard to evaluate environmental performance by systematically reviewing all relevant aspects and to achieve continuous improvements. The specifications of the various management systems are integrated into our business processes, where they are further developed and refined. Almost all MAHLE locations are certified in accordance with ISO 14001. Some have already successfully completed certification in accordance with ISO 50001 or EMAS; more will follow.

Successful implementation at our international locations

HSE aspects, along with energy aspects, are already taken into consideration during the development of new products and production processes. At the same time, our existing products and processes are subjected to continuous evaluation in order to open up further opportunities for improvement and to ensure the sustainable use of resources. Compiling all relevant HSE data on an annual basis enables us to compare installations, locations, and business units. In an effort to increase the sustainability of all activities, new location-specific HSE objectives are defined annually. Evaluating the degree of implementation is an integral part of our environmental management. To achieve the objectives at our locations, emphasis was placed on increasing the degree of energy efficiency or utilization of our installations as well as optimized facility management in the year under report. The following examples describe the measures that were implemented in the current business year.

Free coolers at the St. Michael plant in Austria generate considerable CO₂ savings in the cooling water supply.



Europe

In the Murtede plant in Portugal, a monitoring system for the consumption of compressed air was introduced, the thermal insulation was improved through various measures, and the conventional lighting in the main factory building was replaced with energy-efficient lighting technology. At the St. Michael plant in Austria, the installation of free coolers generated savings of 108 metric tons of CO₂ in the cooling water supply. We were also able to considerably lower the energy requirements for the outdoor lighting by modernizing the installation. At the Vöcklabruck/Austria location, waste heat was recovered from the foundry and delivered to the heating system; along with other measures, this led to a 270-ton reduction in CO₂ emissions.

The production location in Zell im Wiesental/Germany also increased its energy efficiency thanks to a variety of measures—from waste heat recovery to new control cabinet coolers, from improved refrigerant dryers to ceiling-mounted gas heaters—making it possible to reduce CO₂ emissions by 165 metric tons. A free cooler was installed on the roof at the Neustadt an der Donau location in Germany to reduce the burden on the refrigeration machines. At outside temperatures of up to 13 degrees, it now fully takes over the task of cooling the plastic injection machines. In addition, the roof restoration and thermal insulation led to considerable savings in heating costs.

North America

At MAHLE Filter Systems in Santa Catarina/Mexico, energy costs for injection molding machines were reduced by about 50 percent as a result of synchronizing the engine speed and the processes. The engine drive is now operating variably in the optimal supply frequency for the injection molding machines. At our production location in York, Pennsylvania/USA, we replaced the metal halide lamps with new high-performance fluorescent tubes and installed motion detectors for each device in the new lighting system to provide needs-based lighting. Thanks to the installation of process control systems for five foundry induction furnaces in our plant in Morristown, Tennessee/USA, we were able to implement automatic temperature monitoring and heat regulation, thus reducing CO₂ emissions by 527 metric tons. Upgrading the building's HVAC systems with a total of ten energy-efficient engines led to additional CO₂ emission savings of 151 metric tons. The structural expansion of the camshaft and MonoWeld production was also underpinned by energy efficiency considerations: walls with sandwich panel insulation and a reflective roof membrane reduce the thermal absorption of solar energy in the warm months and heat loss in the winter months—resulting in potential CO₂ savings of around 138 metric tons per year.



The plastic injection machines at the plant in Neustadt an der Donau in Germany can be completely cooled by means of the free cooler on the roof.

South America

Our Brazilian plants are successfully implementing procedures for energy recovery in furnaces, which will lead to significant reductions in natural gas consumption. Other technologies promote the recycling of waste: for example, a special process separates and recycles metals from foundry sand and dust from exhaust systems or from slag and sludge. The internal recycling of foundry sand in the Itajubá plant is leading to significant transport savings. The same applies to internal processing of drilling and grinding emulsion at the Queimados and Itajubá locations. The sorting and disposal of waste at landfill sites situated close to the Indaiatuba and São Bernardo do Campo plants is reducing transport costs. Waste treatment measures are also being taken in the canteens of all Brazilian locations in order to reduce waste disposal costs. One example is the composting of organic waste.

Asia/Pacific

Numerous initiatives undertaken by the Asian locations in 2014 also contributed to increased environmental protection and energy efficiency. In the Tochigi plant in Japan, an analysis of forming machines and the integrated heating processes led to a reduction in the heating time and the realization of energy savings. With the installation of transparent panels in the production hall roof, the Chinese location in Tianjin is now able to make use of daylight. Artificial lighting is therefore unnecessary during the day.

RESEARCH & DEVELOPMENT //

MAHLE's innovative solutions are continuing to advance the development of vehicle technologies. The focus is on reducing fuel consumption and emissions and thus further increasing the efficiency of the overall system.



For the first time, MAHLE MONOTHERM® steel pistons including piston rings and piston pins are delivered for a large-scale production application for passenger cars.

As a leading development partner to the automotive and engine industry, MAHLE provides unique systems competence in the area of powertrains, engine peripherals, and thermal management. It puts us in a position to successfully confront global challenges: by continuously developing individual components with an eye on factors such as reduced fuel consumption, weight savings, increased performance, frictional loss reduction, and wear resistance—while simultaneously optimizing their interaction within the overall system.

DEVELOPMENTS IN ENGINE SYSTEMS AND COMPONENTS

Steel pistons for passenger car diesel engines

With the increase in engine output, thermal and mechanical loads on the piston are also rising. Because steel can cope with these demands better than aluminum—with its lower thermal expansion and higher rigidity and strength—, this metal is also becoming increasingly important in passenger car diesel piston technology. The chief advantages in comparison with the aluminum pistons commonly used up to now lie in the piston's significantly reduced compression height and the resulting lower frictional loss as well as a combustion optimization due to thermodynamic correlations.

MAHLE MONOTHERM® steel pistons have already proven their worth for many years in commercial vehicle engines. The MAHLE engineers have now made this piston concept ready for series production for use in passenger cars. The world's first large-scale series production of steel pistons for passenger car diesel engines commenced in spring 2014 for the new 1.5-liter and 1.6-liter four-cylinder engines from Renault. Individual variants of these new engine generations are now also being used by a German premium manufacturer in its new mid-range models.

Optimized piston rings for commercial vehicle applications

The demands for a reduction in fuel consumption and emissions along with a longer service life of up to one million miles without an engine rebuild are shaping the development of

new commercial vehicle engine components. Piston rings are gaining importance because of the high thermal loads and pressure ratios in modern engines.

MAHLE has developed the innovative NanoBium MIP290 coating in order to increase thermomechanical resistance. Piston rings with this new, patented coating are already designed to meet the requirements of future engine generations today.

In order to minimize friction losses at the oil control ring and further increase its service life, MAHLE has enhanced its development of the proven V-shape design and combined it with a chromium nitride PVD coating—for higher wear resistance and more reliable sealing.

Polymer-coated thrust washers

Thrust washers are also being subjected to increasingly heavy loads as a result of the continuing oil pump size reduction and the use of low-viscosity engine oil, as well as the proliferation of stop-start systems. To increase the thermal and chemical constancy, mechanical strength, thermal conductivity, and seizure resistance, MAHLE has successfully transferred the functional polymer slide layer technology, which has already proven its worth in MAHLE bearings since 2009, to thrust washers. Tribological testing has shown that thrust washers coated in this manner are over 15 times more wear-resistant than uncoated washers. With these new thrust washers, MAHLE can cover a wide range of gasoline and diesel applications in both the passenger car and commercial vehicle sectors.

New processes and designs for commercial vehicle engine valves

The valve assembly—consisting of the valve, the valve guide, and the valve seat insert—is heavily exposed to ever-increasing pressures and temperatures. At the same time, aspects such as service life requirements of up to 1.6 million kilometers and service intervals of up to 400,000 kilometers need to be taken into consideration in the cost-sensitive commercial vehicle sector. MAHLE has developed nitrided intake valves, which are tailored to these specific requirements and offer excellent wear protection and significantly heightened resistance to thermomechanical fatigue. The nitrided components require only a blasting or polishing process during manufacturing. The low process temperatures limit the loss of hardness at the end of the valve stem. Greater specific loads can thus be handled, while meeting the extended service life and service interval requirements.

For particularly effective heat dissipation in gas-powered vehicles and in demanding diesel applications, MAHLE has designed sodium-filled hollow valves: the sodium liquefies during engine operation and is moved back and forth by inertia forces, transporting heat from the valve disk to the skirt area. Thanks to this “shaker effect,” the temperature in the hollow cavity can be reduced by about 80 to 130 kelvin, which considerably reduces the overall wear in the valve/valve seat insert system.

Hollow valve (left) and nitrided valve (right) for the highest requirements in the commercial vehicle sector





Commercial vehicle fuel filter modules from MAHLE already have a high level of functional integration with minimal package requirements and weight.

DEVELOPMENTS IN FILTRATION AND ENGINE PERIPHERALS

Modularity and functional integration in the engine periphery of commercial vehicles

The latest commercial vehicle systems from MAHLE—for example, cylinder head cover modules with integrated oil mist separation or modular building block systems in commercial vehicle fuel filter modules—already have a high level of functional integration with minimal package requirements and weight. To be able to provide even more cost-effective solutions in the future, MAHLE is pursuing the advanced approach

of a cross-platform, modular filter system for commercial vehicle applications. Individual components can be integrated much more easily thanks to standardized interfaces within the module.

Combined oil-vacuum pump

The patented controlled pendulum-slider oil pumps from MAHLE generate pressure and volume flow as required and reduce the necessary power input to a minimum, which in turn achieves a reduction in CO₂ emissions of three to four percent. Vacuum pumps create the vacuum required to boost pneumatic brake performance, among other things, and are usually located on the camshaft. However, because the camshaft runs at only half the crankshaft speed, a correspondingly large pump volume is required, and thus also more installation space.

In order to meet the increased demands for component and weight reduction, MAHLE has developed an innovative solution: a combination of both pumps. The vacuum pump is placed directly on the oil pump in the lower area of the powertrain and is driven by the same shaft, which increases its speed. This allows for a significantly more compact design. The vacuum pump can also be driven via a special clutch, allowing its speed to be adapted on demand. This results in further savings potential with regard to the pump's power input and consequently its fuel consumption.

DEVELOPMENTS IN MECHATRONICS

In MAHLE's core markets—powertrain and thermal management of passenger cars, light to heavy-duty commercial vehicles, agricultural and construction machinery, stationary engines, and small combustion engines—the demand for emission-reducing technologies is increasing constantly. Alongside the optimization of conventional powertrains, the importance of mechatronic components is growing significantly. For MAHLE, the opportunity is arising, on the one hand, to contribute to the mechatronics needed to control and drive well-established products, and on the other, to incorporate completely new products into its portfolio, ranging from electrical auxiliary components to electric drives. Following the acquisition and integration of Letrika, MAHLE has therefore been supplying the growing mechatronic market with innovative electric drives, in addition to actuators, since 2014.

Electric wastegate actuators

Gasoline turbocharged engines control the boost pressure using a wastegate actuator. In 2009, MAHLE was the first automotive supplier to start series production of an electric wastegate actuator, whose control speed and accuracy have brought about considerable torque, performance, and emission advantages. A new generation of the wastegate actua-

tor has now been developed in order to meet future customer requirements for performance, thermal load capacity, and costs—not to mention more stringent CO₂ thresholds.

The “EWG045” has a completely sealed plastic housing, which is corrosion-resistant and reduces the weight considerably. The design allows it to be fitted very close to the turbocharger, creating an extremely advantageous systems package. The high output torque can also keep the wastegate actuator closed at even the highest engine compartment temperatures and exhaust gas pressures, which has a positive impact on engine performance. The rotary output provides flexibility for the desired force progression and operating strategy, and the large operating angle allows a fast CAT light-off due to the active, wide opening of the wastegate actuator in the cold start phase, which means the hot exhaust gas bypasses the turbocharger and heats the catalytic converter directly. This shortens the catalytic converter warming-up time and thus reduces the cold start emissions in the test cycle.

Electrical auxiliary components for the 48-volt electrical system

The introduction of a 48-volt electrical system as a cost-effective entry-level variant for vehicle hybridization is increasingly likely. It would be able to provide a high electrical output for the numerous consumers as well as efficiently implement functions such as recuperation. With these objectives in mind, MAHLE is busy working on numerous potential products that can apply the 48-volt technology.

Left: The innovative stainless steel oil cooler from MAHLE was developed specifically for the requirements in medium-sized and heavy-duty commercial vehicles.

Right: Lightweight construction and increased specific cooling capacity compensate for the higher cooling requirements in commercial vehicles.

DEVELOPMENTS IN ENGINE COOLING AND AIR CONDITIONING

New stainless steel oil coolers for commercial vehicles

Engine components are operating ever closer to the temperature limits of their materials. Highly efficient thermal management is therefore crucial—as is the oil cooler, which prevents overheating and premature aging of the oil and also allows replacement intervals to be extended. MAHLE has developed a stainless steel oil cooler with innovative detailed solutions specifically for the requirements of medium-sized and heavy-duty commercial vehicles. Turbulence inserts with optimized contours, a new plate design, and division of the inlet channels guarantee improved oil flow, increased heat transfer, and low oil pressure drop, while ensuring sufficient strength to withstand pressure peaks in the engine. With this new development, MAHLE provides a low-cost, light, and compact oil cooler, which needs around 20 percent less installation space for the same heat exchange performance.

Lightweight design for commercial vehicle cooling systems in Euro VI applications

The Euro VI emission standard places higher requirements on the cooling system—it has led to an increase of 40 percent in coolant waste heat. At the same time, transport efficiency and therefore potential payload is a decisive success factor in the commercial vehicle sector. Through lightweight design and by raising the specific output of the components coolant cooler, VISCO® fan and drive, charge air cooler, and EGR cooler, MAHLE has managed to design the cooling system without creating additional weight, improve operational strength, and significantly enhance the cooling capacity in comparison with Euro V systems, without increasing consumption.



Indirect cooling system for heavy-duty commercial vehicles

MAHLE is adopting the approach of an indirect cooling system for heavy-duty commercial vehicles in order to increase the cooling capacity without any impact on consumption and to reduce the complexity when integrating future additional cooling requirements. In this type of system, rather than being released directly to the ambient air, the heat from the charge air cooler first passes indirectly through a low-temperature coolant circuit and a low-temperature coolant cooler (LT cooler) located in the cooling module before being discharged to the ambient air. The charge air therefore no longer needs to be fed forward into the cooling module, as is the case with direct cooling, which consequently reduces charge air volumes and pressure loss in the charge air line. Since the LT cooler needs significantly less space than a comparable charge air/air cooler, space is made available in the front end. The refrigerant circuit condenser can also be cooled using the low-temperature coolant cooler. This enables it to be removed from the cooling module, which results in a simplified and more compact modular design.

Additive manufacturing of heat exchangers

Additive or generative manufacturing is also becoming increasingly important in the field of metallic materials. In these processes, manufacturing is directly based on data models such as construction drawings. This eliminates the need for expensive tools, shortens the production times, enables direct manufacturing, and offers new freedom in design. In order to make use of these advantages when developing and optimizing heat exchangers, MAHLE initiated a research project in the summer of 2014 to test the possible applications of the additive process

for prototypes and small lots of conventional heat exchangers. The first exhaust gas cooler has already been successfully produced using the additive manufacturing process.

Forced development of CO₂ air conditioning systems

In the year under report, the debate concerning the use of the new chemical refrigerant R1234yf in European passenger car air conditioning systems was the focus of public attention. For safety and sustainability reasons, leading vehicle manufacturers are developing air conditioning systems with the natural refrigerant R744 (CO₂). However, since these systems operate at much higher pressures than conventional systems, massive structural changes are needed.

On account of its high global warming potential, the current chemical refrigerant R134a may not be used in new vehicles as of January 1, 2017. Consequently, MAHLE is working intensively in close cooperation with its customers to prepare R744 systems for series production in time. Current priorities are the design of the evaporator, the gas cooler as a replacement for the condensers used until now, accumulators with and without integrated heat exchangers, and components for battery temperature control in electrified vehicles. The development of CO₂ air conditioning systems has great strategic importance for MAHLE—not least for opening up new sales potential based on the additionally required components for the air conditioning circuit.

RESEARCH PROJECTS

Monovalent natural gas downsizing engine

Motivated by the low CO₂ emissions of natural gas-driven combustion engines in comparison with conventional fuels, MAHLE has designed a natural gas variant of its own 1.2-liter three-cylinder downsizing engine and integrated it into a compact van. The monovalent natural gas drive is likely to become well-established, particularly for heavier and at the same time more price-sensitive passenger cars, as an alternative solution—alongside electrification and other measures—to achieving the strict European CO₂ fleet thresholds of less than 95 g/km from 2021. The combination of downsizing and the high knock resistance of natural gas promises great potential. MAHLE expects CO₂ savings of more than 20 percent in comparison with a gasoline engine equivalent, without compromising driving performance. Further tests focus on the engine design, besides paying particular attention to the effects on the core components of the engine in proximity to the combustion chamber, such as pistons, piston rings, or engine valves, as well as the impact of charge air cooling.

Low-pressure exhaust gas recirculation in gasoline engines

Under the currently applicable New European Driving Cycle (NEDC), the pollutant thresholds must be observed only with-

The MAHLE test vehicle with monovalent natural gas downsizing engine on the chassis dynamometer



in a low-load driving profile. However, the strengthening of these regulations and the introduction of new driving cycles is being discussed on an international level. MAHLE sees low-pressure exhaust gas recirculation as one solution for complying with the thresholds across the operating map. MAHLE engineers have equipped a large-scale production gasoline engine with a high- and low-pressure EGR system. Following numerous optimization loops on the engine test bench as well as in test vehicles, a MAHLE EGR demonstrator vehicle was created, which is already able to comply with the future emission regulations and offers optimal fuel consumption at the same time.

The ongoing development of exhaust gas heat recovery

Development work continues to focus on the further reduction of fuel consumption in the commercial vehicle sector. The recovery of energy from exhaust gas heat plays a significant role in this area, because even modern commercial vehicle engines still waste around 30 percent of their fuel energy as exhaust gas. MAHLE has therefore developed a systematic approach for several commercial vehicle customers based on the Rankine cycle, which consists of an expansion machine, a feed pump, and various heat exchangers. A savings potential of around five percent was demonstrated on the engine test bench under simulated long-distance hauling operating conditions. The success of the development was based on a deep understanding of the system and close cooperation with the customers, coupled with new production processes in addition to simulation and testing methods for the design as well as for safeguarding the service life.

Thermoelectric heat pumps

The heat for the cabin of vehicles with fully or partially electric powertrains is mainly supplied by an electric heater (PTC heater), which shortens the already limited cruising range of such vehicles by a further 40 percent in winter. As part of the “e-generation” project that is being sponsored by the Ministry of Education and Research, MAHLE Advanced Engineering is investigating how to reduce the amount of energy that is used to heat the cabin. An alternative approach being considered is the thermoelectric heat pump, which can pump the available low-temperature waste heat from batteries, power electronics, electric motors, and transmission to a higher temperature level so it can be used for cabin heating.

iCAS—indirect charge air subcooling

The downsizing technology has established itself as an effective measure for reducing fuel consumption in conventional combustion engines. Nevertheless, the decrease in displacement often leads to a decline in responsiveness, particularly at low engine speeds. To solve this problem, MAHLE is adopting a new approach: the use of a “thermal compressor.” With this concept, known as iCAS (indirect charge air subcooling),



The MAHLE EGR test vehicle with large-scale production gasoline engine and applied high- and low-pressure EGR system



Air intake module with integrated indirect charge air subcooling for ultrahigh cooling capacity

the charge air cooling system is coupled to the air conditioning system and the charge air is cooled to below the ambient temperature, if required, reducing the boost pressure demand. In turn, the low pressure and temperature allow an earlier combustion state and thus greater efficiency. Various engine and vehicle tests have confirmed the great potential charge air subcooling has for improving responsiveness and reducing fuel consumption.

MINIMIZING ENERGY LOSS, INCREASING OVERALL EFFICIENCY: MAHLE'S CONTRIBUTION TO SUSTAINABLE MOBILITY //

The last few years have been marked by a technological change in engine and powertrain technology of unprecedented speed and complexity. While the main focus was on meeting the increasingly stringent emission standards —after the successful implementation of the Euro VI standard—, our development work now centers on reducing fuel consumption and thus CO₂ emissions. In order to tap into new potential in this area, we need to optimize each individual component even further, while ensuring perfect interaction within the overall system. This explains why a holistic view of systems and interrelations is now more important than ever for sustainable success.

Rising energy prices and increasingly stringent climate protection targets are the main drivers in the ongoing development of vehicle technologies. In the transport sector, statutory limits for the greenhouse gas CO₂ were set in many countries —including the USA, China, Japan, and the EU—, which are to be further tightened within the coming years in accordance with a predetermined schedule. The EU has imposed the strictest commitments: by 2020, CO₂ emissions are to be reduced by at least 20 percent in comparison with the base year 1990. New car fleets will then only be permitted to emit a maximum of 95 grams of CO₂ per kilometer.

The reduction in fuel consumption and CO₂ emissions therefore has a high priority in our development work. The goal is to minimize energy losses and thereby further increase overall

efficiency. Besides the ongoing optimization of components and systems, this will be reinforced by controlling the different energy flows in the vehicle. A holistic approach is therefore essential in order to understand and take advantage of the interactions and corresponding synergy effects. At MAHLE, we are working to apply this systems concept even more rigorously in the initial development phase right through to sales and are thus building on our comprehensive systems expertise in the core areas of combustion engines, engine peripherals, mechatronics, and thermal management. In this Special feature, we would like to give you an insight into the work of our nearly 5,000 development engineers and technicians at our international research and development centers—as well as into their diverse challenges, problem-solving approaches, and product innovations.

EFFICIENCY FACTOR 1:

The ongoing development of the combustion engine as a primary drive source

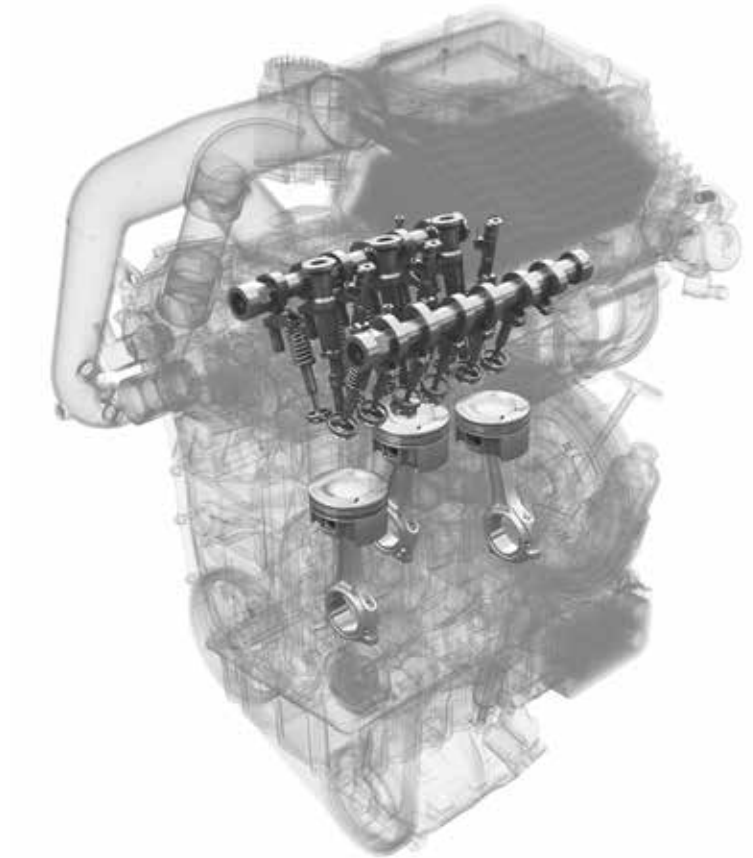
Whether as a single powertrain or a building block for hybrid vehicles, the combustion engine will continue to play a central role in global mobility for several decades to come. Downsizing—a reduction in swept volume combined with an increase in specific engine output—has already led to significantly improved consumption values. In a close development partnership with international automobile and engine manufacturers, we have contributed to successfully getting these technologies on the road. Now we are working on even higher power output levels. The new engine generations are placing more extreme demands on the relevant components and systems than ever before: increasingly higher operating temperatures and pressures with simultaneous reductions in weight and frictional loss. These factors require new concepts and materials with a higher performance than anything that has been witnessed before. We will present you a few examples of selected components and systems—they are representative of our comprehensive portfolio of current products and future developments that allow us to optimally design the most diverse vehicle applications.

Tapping into new potential with a light touch

By reducing weight, we can further increase the engine efficiency. The particular challenge here is that the components must be as light as possible but, at the same time, need to withstand the increased loads on a sustained basis.

The MAHLE EVOLITE® piston is one example of pioneering, wear-resistant lightweight construction. Its innovative design provides a low-weight and friction-optimized solution—with potential CO₂ savings of 0.5 grams per kilometer in the New European Driving Cycle (NEDC) in comparison with current piston technologies. In its function as a link between the piston and connecting rod, the piston pin must be robust and light in order to keep the inertia forces low in the engine. MAHLE has developed a new composite piston pin that meets both these requirements in equal measure, by combining a high-strength steel sleeve with a lightweight aluminum core.

We are also achieving consistent lightweight design in the valve train: “assembled” camshafts consisting of different materials offer weight savings of up to 50 percent in comparison with conventional steel or cast iron camshafts made from solid material or raw forgings. They guarantee a consistently high interference fit of the joined components, even over the entire service life of two million kilometers required for commercial vehicle engines. After having been used in passenger



car engines for years, the latest commercial vehicle engines will now also be equipped with assembled camshafts from MAHLE.

We minimize friction loss

With innovative coating materials and processes, we are able to produce engine components in completely new output ranges with the lowest friction coefficients. The piston ring example demonstrates how we continuously optimize each individual component with regard to both its function and the forces that act upon it. The top ring, or the first compression ring, is subjected to a particularly heavy load, since less and less oil is being used for lubrication in this area. We were able to significantly increase its thermomechanical resistance by means of a novel coating made from niobium nitride and chromium nitride and contribute to the overall efficiency at the same time by reducing the frictional loss.

The oil control ring must exhibit high flexibility and, consequently, good mold filling behavior to avoid oil remaining on the combustion chamber walls. For this purpose, we use the so-called X-taper design with a shallow rise of the lands. Since galvanic plating reaches its limits at this land width, we apply the newly developed MIP230 coating made of chromium nitride, which—in addition to a significantly lower friction coefficient—has a very high thermal consistency. Both coatings are produced using a high-tech process (physical vapor deposition, PVD for short), in which nanolayers of different materials are applied on an alternating basis through evaporation.

Instead of the usual bearings common today, roller bearings are used in the valve train to provide additional savings potential in the area of the camshaft bearings. The roller bearing reduces friction and thus the bearing's oil requirement, since splash oil suffices for lubrication. The oil flow rate in the entire cylinder head decreases and the oil pump can be scaled down or excess oil can be made available to other systems. We have implemented this bearing in the MAHLE low-friction camshaft and are seeing fuel consumption savings of up to two percent.

Constancy is what drives us

With their integrated cooling channels and special coatings, innovative gasoline engine piston generations have also been designed for the increased load applications of future engine

generations. In the new MAHLE EVOTEC® SC piston, for example, the cooling channel causes temperatures at the piston crown and around the first ring land to drop by up to 25 kelvin. This piston concept can therefore continuously withstand even future power densities and the associated thermal loads. MAHLE is a trendsetter in passenger car diesel pistons: as MAHLE steel pistons have proven their worth for many years in commercial vehicles and in motorsport under extreme loads, we have further developed this wear- and temperature-resistant solution for efficient passenger car diesel engines and put it into large-scale production.

By combining solid lubricants and wear-reducing hard phases in a new material (PL S 131) for valve guides, we have succeeded in further optimizing both heat and wear resistance. We have also developed a new material (PL 510) for the valve seat insert: the required high pressure and creep resistance to avoid drop-out under the extreme thermal conditions in future engine generations is achieved through a metastable structure with a chromium-molybdenum-vanadium network and increased cobalt content.

We provide cooling

The rise in heat input that comes with increasing power density leads to a significant escalation of component temperatures. We equip valves with a sodium-filled cavity to reduce the thermal load and increase the fatigue resistance. The sodium liquefies during engine operation and transports the heat to the skirt area as the valves move up and down. By means of electrochemical machining, which is a newly developed manufacturing process, we succeeded in producing a valve with an extended cavity in the valve head (the EvoTherm® valve). Even greater heat dissipation can be achieved in the spherical cavity because of the larger surface. By cooling the surfaces in the combustion chamber by about 30 to 50 kelvin, the knock limit can be shifted, allowing an improved combustion design.

With the TopTherm valve, we are currently exploring additional possibilities to reduce the temperature on component surfaces with a high thermal load. Thanks to a stiff rotation-symmetrical surface structure with a large sodium-filled cavity, it can contribute to a reduction in consumption in the NEDC of up to one percent.

Systematically increasing efficiency

The illustrated individual measures clearly show how we are implementing increasingly demanding requirements in new and ongoing developments. In order to find the optimal solution for a specific vehicle application, development and design coordination of all the components, while taking into account



the interactions, is essential. The MAHLE commercial vehicle PCU (power cell unit) pictured here exemplifies the way in which we achieve maximum efficiency for a given engine design through targeted component selection.

We are extremely flexible with valve timings

As the key mechanical element of the gas exchange, the valve train has a major influence on combustion. The MAHLE Cam-InCam®, which has two assembled camshafts, one inside the other, allows variable timing of the intake and exhaust valves —and thus higher torques and faster turbocharger response, even at low speeds. Furthermore, it supports functions that are increasingly in demand for improving efficiency: closing the intake valves earlier or later allows the compression ratio to be reduced, thereby lowering the combustion temperature and pressure. An early opening of the exhaust valves allows the exhaust gas temperature to be increased, which is important for regeneration of the particulate filter or for heating the catalytic converter faster, for instance.

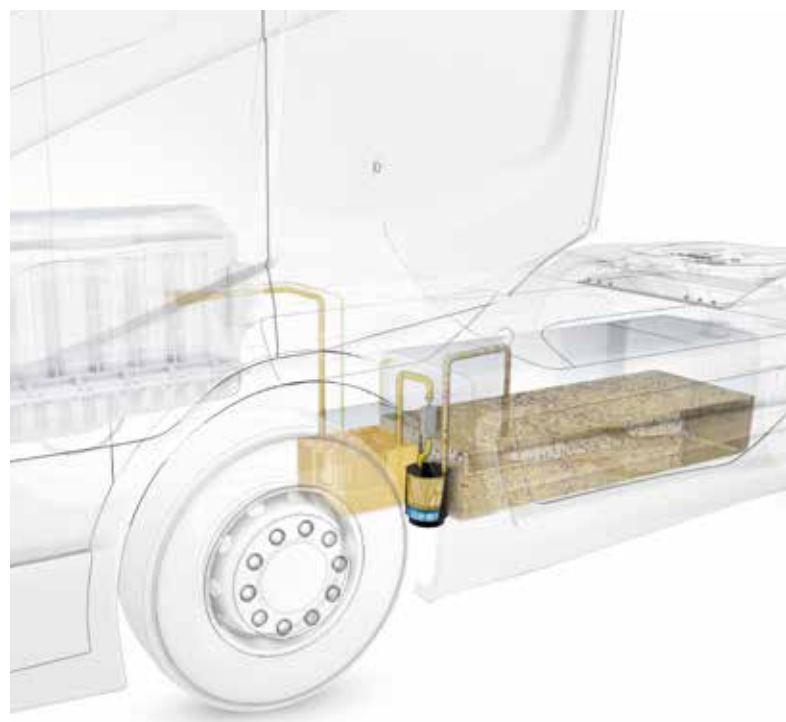
EFFICIENCY FACTOR 2: High-performance filter systems

We are ready for global application

As complexity increases, protecting high-tech engines becomes ever more important. The approach of using identical components and the modular strategy employed by manufacturers pose a particular challenge—the trend is moving toward the so-called world engine, an engine platform for all regions of the world. Engines consequently need to meet the differing exhaust gas legislation around the world—constituting another challenge because this highly complex, sensitive technology has to cope with very different fuel qualities containing distinct levels of impurities, biofuel, and water in the various countries and regions. MAHLE is meeting these requirements with highly efficient filter elements and modules for reliable particle and water separation.

We supply clean air for breathing

As the processes in the combustion engine become ever more complex, the demands on the intake system and air filter to provide optimum air flow or fresh air supply are also growing. Increasingly small package constraints require ever higher filtration performance, especially with respect to particle retention efficiency. We are addressing this trend through the use of new high-performance filter media, even more complex flow guidance design, and new filter element concepts. As a technology leader in the area of plasticized filter elements, we are in a position to flexibly design different types for a wide variety of spatial conditions.



EFFICIENCY FACTOR 3: Combustion engine electrification

We are eagerly looking ahead

In addition to the measures relating to the combustion powertrain, the electrification of the vehicle offers new opportunities for reducing engine energy losses and thus increasing efficiency. An increase in the vehicle system voltage to 48 volts, coupled with greater electrical storage capacities in the vehicle, allows the intensified use of regenerative braking, stop-start functions, and even the coasting function—for example, by switching off the combustion engine in the rolling phase. The stronger electrical system simultaneously provides the possibility for auxiliary components to be driven electrically in future; so far they have been mechanically driven by the combustion engine. The resulting benefits range from speed-independent control and high control accuracy to belt drive decoupling and a reduced burden on the combustion engine, as well as minimized mechanical losses.

One example of the electrification of auxiliary components is the 48-volt main water pump, which we developed on the basis of the new vehicle system voltage. With an electrical output of about one kilowatt, it guarantees a significantly more efficient engine cooling compared with the previous 400-watt pumps for the 12-volt electrical system, while saving installation space and weight at the same time.

We are gaining more independence

Against a backdrop of progressive electrification, we are strengthening our activities in the area of electrics and mechatronics. Hence, the acquisition of a holding in the Japanese mechatronics specialist Kokusan Denki and the takeover of the

Slovenian group Letrika represent important strategic steps. Letrika supplies the original equipment sector, for instance, with electric motors and control systems for the compact car segment. In the year under report, Letrika presented a modern high-voltage drive system as one of its latest developments. With a capacity of more than 50 kilowatts, it is also suitable for vehicles whose weight exceeds one metric ton. These new participations are providing us with additional comprehensive expertise in development and manufacturing and are expanding our existing product portfolio to include innovative electronic control systems, actuators, and drive-relevant systems. We will gradually expand this portfolio, and thus continue to increase our own added value—for example, through internally developed blower and cooling fan motors for our Thermal Management business unit. MAHLE will introduce major incentives to accompany the increasing electrification of the automobile.

EFFICIENCY FACTOR 4: From cooling and air conditioning to highly complex thermal management

Coolant and refrigerant circuits are developing more and more into synergistically integrated “efficiency contributors”: the various systems interact with each other, and heat sources and heat sinks are interconnected and utilized on demand; energy flows are dynamically controlled and regulated through to the storage of energy.

One example of this intelligent linking is cascaded charge air cooling, which was developed by MAHLE and is integrated into the air intake module. This system cools the charge air of the increasingly powerfully charged combustion engine in two

Following the acquisition of Letrika, the MAHLE product portfolio now also includes electric drive systems.



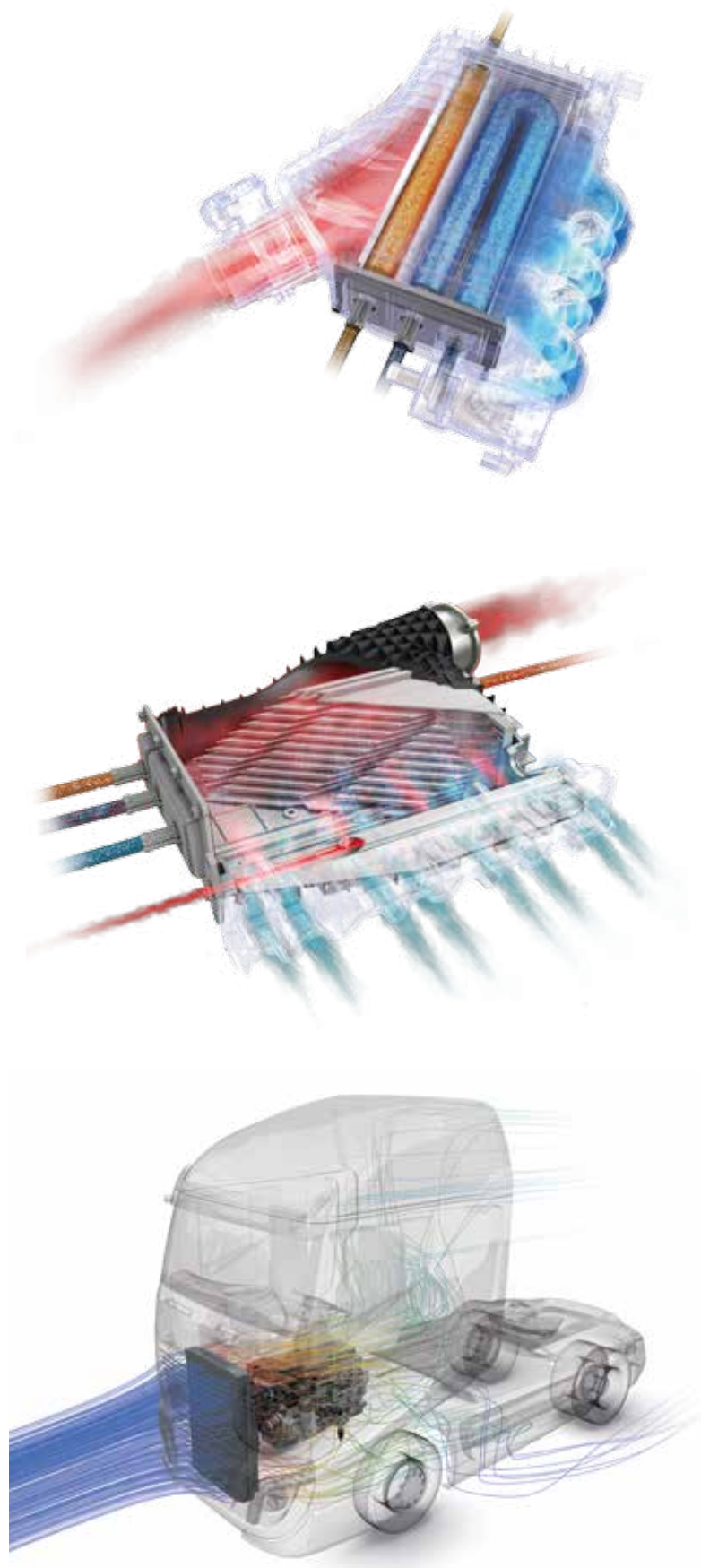
stages—first by means of the high-temperature coolant circuit in the engine, and then by means of the low-temperature coolant circuit for indirect charge air cooling. Engine test results prove that by decreasing charge air temperatures, significant emission reductions can be achieved under partial load along with additional consumption savings under full load. Cascaded charge air cooling can therefore pave the way for future downsizing concepts as well as higher degrees of turbocharging. The disadvantages currently associated with a high degree of turbocharging, such as retarded ignition or unnecessary fuel enrichment on the full-load curve, are eliminated thanks to integrated cascaded charge air cooling.

Besides charge air cooling, additional cooling tasks also requiring a low temperature level will need to be tackled in the future. Examples include cooling hybrid powertrains with power electronics, electric drive and battery, intercooling of a two-stage turbocharger—particularly with respect to further downsizing—, recooling of an air conditioning system powered by waste heat, or low-temperature EGR cooling. MAHLE's indirect cooling systems with several cooling circuits provide optimal conditions in this regard, because the additional heat sources can be integrated into the existing low-temperature coolant circuit without having to change the architecture of the cooling module.

CONCLUSION

The ongoing development of the combustion engine still holds significant potential for reducing CO₂ emissions and fuel consumption. In order to recognize and take best advantage of the interactions between the various components and subsystems, extensive and detailed knowledge of the overall system is more necessary than ever before. It is this knowledge in the area of powertrains and their peripherals, as well as in thermal management, that sets us apart from other systems suppliers. Through the intelligent linking of vehicle technologies and precise designs of components and systems, we will tap into additional synergy effects and further increase the efficiency of the overall system. Furthermore, we will introduce innovative solutions to accompany the progressive electrification of vehicles—from auxiliary components that operate independently of the combustion engine to hybrid concepts and purely electric drive systems.

In our pursuit to not only keep pace with technological change but also to enable and initiate new steps in vehicle development through innovative solutions, we will continue to make an important contribution to ensuring that mobility becomes more sustainable and environmentally friendly—and also remains affordable.





02 //

MANAGEMENT REPORT

54	GLOBAL ECONOMIC CONDITIONS
56	BUSINESS DEVELOPMENT
61	TECHNOLOGY AND INNOVATION
62	PURCHASING
63	PRODUCTION AND HUMAN RESOURCES
64	NET ASSETS, FINANCIAL POSITION, AND RESULTS OF OPERATIONS
68	OPPORTUNITY AND RISK REPORT
70	OUTLOOK

GLOBAL ECONOMIC CONDITIONS //

Regional crises and geopolitical tensions slowed down the global economy in 2014. Overall, the automotive markets saw moderate growth, although development was marked by considerable regional differences.

Overall economic development

In its January report, the International Monetary Fund (IMF) estimated the growth of the global economy at 3.3 percent in 2014. This revision of the more optimistic forecast made at the beginning of 2014 relates in particular to the reduction in growth potential in both advanced economies and emerging markets, alongside geopolitical uncertainties such as the Ukraine crisis.

The economic situation in Europe continued to show little momentum. The fact that the euro zone did not slip back into recession in 2014 is mainly due to an expansive monetary policy and the incipient recovery of several previously crisis-stricken countries. Even though Germany also narrowly avoided a recession during the summer months, a buoyant start to the year and a good final quarter enabled Europe's largest economy to contribute to a cautious recovery in the region.

In contrast to the situation in Europe, the United States was able to record unabated growth. According to the IMF, economic growth amounted to 2.4 percent in 2014—a slight increase compared with the previous year, backed by fiscal and monetary policy incentives along with the recovery of the real estate and labor market. In South America, growth was inhibited by deteriorating terms of trade, induced by exchange rate movements, as well as weak domestic demand. Brazil, in particular, suffered from a restrained business and consumer climate, along with a decline in competitiveness. Consequently, the country's economic output stagnated in 2014, the year under report.

In Japan, the VAT increase led to a decrease in consumption and investment demand, causing temporary damage to the economy. In China, with economic growth of 7.4 percent, the government was unable to maintain the previous year's level despite taking a series of small-scale measures. Driven by positive impetus from investments and exports, India was one of the few major economies able to slightly increase its growth rate compared with the weak level of the previous year.

Compared with the previous year, the exchange rates of numerous major trading currencies depreciated against the euro as measured by the average market price. The Brazilian real fell against the euro by around nine percent based on the market average, and the Japanese yen by around eight percent. The losses in value of the Argentine peso (48 percent) and the Russian ruble (20 percent) were even more apparent. There was practically no change in the U.S. dollar as measured by the average rate. However, it appreciated significantly in the second half of 2014 from 1.37 to 1.21. Exchange rate movements are not only of great importance for purchasing and sales transactions in foreign currencies, but they also affect the conversion of financial data for accounting purposes.

Development of the markets for passenger cars and light commercial vehicles

According to estimates made by the market research institute IHS, the global production of passenger cars and light commercial vehicles rose by 3.1 percent to 87.4 million units in the 2014 business year, with growth slowing down in the second half-year. This development was marked by a high level of disparity between the regional markets.

In Europe, vehicle production rose by 3.3 percent to around 20 million units in 2014. Overall, the western European market developed favorably with production growth of 5.1 percent. However, following initially high growth rates, it slowly lost momentum during the second half of the year. Development in Germany tended to follow this trend. Those countries particularly affected by the euro crisis of recent years, such as Spain and Italy, were able to recover and record high growth rates in 2014, albeit starting from a very low level. Market development in central and eastern Europe was influenced by the ongoing conflict in eastern Ukraine. Compared with the previous year, production decreased by 0.1 percent in 2014. Russia, in particular, recorded double-digit percentage declines in production.

North America saw the positive growth trend from the previous year continue. Driven by the dynamic economic development, the production of passenger cars and light commercial vehicles increased by 5.2 percent to around 17 million units. The United States, and also Mexico in particular, contributed to this trend. Quite the opposite picture emerged in South America. In the midst of a gloomy economic environment, production fell by 15.7 percent to 3.8 million units. Brazil, by far the biggest South American market, recorded a drop in production of 14.1 percent.

In the Asia/Pacific region, the market grew by 3.5 percent to 44.4 million units. This region is therefore producing more than half of the world's passenger cars and light commercial vehicles. In China—the world's biggest individual market—alone, 23.0 million units were produced. Having frequently recorded double-digit growth rates in previous years, China's growth in the year under report is now in single digits at 8.1 percent. However, the increase in the absolute production level should also be taken into account. In Japan, production increased by 2.1 percent overall in 2014—anticipatory effects from the VAT increase led to a temporary boom in the first half-year, whereas significant declines were recorded in the second half. Despite the resurgence of the overall economy in India, its production volume dropped by 1.7 percent.

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

According to estimates made by the market research institute IHS, the global production of medium-sized and heavy-duty commercial vehicles fell by 1.6 percent to 3.3 million units in the 2014 business year.

In Europe, the negative trend of the previous years continued; production declined by 6.2 percent to just under 0.6 million units. The decrease is mainly due to anticipatory effects in the run-up to the introduction of the new Euro VI emission standard at the beginning of 2014. Production in central and eastern Europe suffered a double-digit percentage slump.

Following the weak performance in the previous year, commercial vehicle production in North America was expanded significantly again in 2014 due to a recovery in demand, with growth rates reaching well into double-digit percentages. In contrast, the worsening economic climate in South America led to significant declines in production of more than 20 percent.

The production of commercial vehicles in the Asia/Pacific region, which is of great significance for this subsegment, dropped slightly during the business year. In the important Chinese market, slight anticipatory effects were still recorded

in 2014 as a result of the introduction of the new China IV emission standard being further postponed to January 2015. However, this could not compensate for the slowdown in the economic situation, which led to a decline of 4.7 percent in Chinese production. In Japan, commercial vehicle production increased by 1.9 percent. In India, the negative trend from the previous year was curbed and the production of commercial vehicles rose again.

Development of the markets for off-highway applications

In 2014, the development of the markets for off-highway applications suffered a further global decline. While 2013 saw a weakening of the market for construction machines in particular, agricultural machinery also remained below expectations in the year under report. Significant losses were recorded, mainly in Europe and North America. Negative developments in the Chinese and Japanese markets were compensated by an increase in production volumes in India and Southeast Asia. All in all, modest market growth was achieved for the Asia/Pacific region.

WORLDWIDE AUTOMOBILE PRODUCTION //

Numbers in 1,000s

Business year	2014	2014	2013	2013
	Passenger cars & light comm. vehicles	Commercial vehicles (incl. buses)	Passenger cars & light comm. vehicles	Commercial vehicles (incl. buses)
America	20,848	737	20,712	718
North America	17,025	542	16,177	464
South America	3,823	195	4,535	254
Asia/Pacific	44,448	1,999	42,963	2,035
Japan	9,236	328	9,048	322
China	22,981	1,167	21,258	1,225
Europe	20,143	553	19,502	589
Germany	5,820	130	5,639	136
Other countries	1,933	3	1,561	3
Total	87,372	3,292	84,738	3,345

Source: IHS Automotive, figures for passenger cars and light commercial vehicles (last updated: March 2015); figures for commercial vehicles (last updated: February 2015)

BUSINESS DEVELOPMENT //

MAHLE group sales rose to nearly EUR 10 billion in the 2014 business year. Adjusted for positive consolidation and negative exchange rate effects, organic sales growth of 2.0 percent was achieved.

In the 2014 business year, MAHLE significantly increased its group sales by 43.2 percent to EUR 9,942.4 million. The development was marked by large regional differences in addition to considerable effects of first consolidation and overall negative exchange rate effects.

Changes in the consolidation group made a significant contribution to the increase in sales, with an overall impact of almost EUR 3 billion. The majority of this figure can be attributed to the first full-year inclusion of sales from the MAHLE Behr Group. Furthermore, the full consolidation of the Letrika Group as of September 2014 has also had a positive influence on sales. The completed divestment of sinter activities in Switzerland in the previous year has resulted in an opposing effect.

In contrast to the consolidation effect, exchange rate influences amounting to EUR 127.6 million had a negative impact on group sales compared with the previous year. The devaluation of the Brazilian real, the Argentine peso, and the Japanese yen had the strongest impact. Organically—i.e., adjusted for exchange rate effects as well as changes in the consolidation group—MAHLE was able to increase sales by 2.0 percent in comparison with the previous year.

For the MAHLE Group, the 2014 business year was characterized by consolidation as well as the introduction of additional important strategic steps for future growth. The integration of the MAHLE Behr Group in all major subdivisions was completed. At the same time, the production footprint has been expanded considerably with new plants in China, Indonesia, and Mexico. In addition, MAHLE strengthened its mechatronics activities through the acquisition of the Slovenia-based Letrika Group, thereby expanding its product portfolio. Active at seven production and development locations in all major automotive markets, the company with about 2,500 employees develops and manufactures innovative electric motors, starter motors, generators, and electric and mechatronic drive systems.

Business units and profit centers

As of December 31, 2014, the MAHLE Group consists of five business units and seven profit centers. The diagram opposite illustrates the group's existing reporting structure as at this reference date, which is relevant for explaining the business development. On January 1, 2015, the Industry business unit was organizationally dissolved. Its three subsegments are now being managed as independent profit centers, which means they can be more closely linked with the thematically related automotive business units in order to achieve greater development and process synergies. The new Engineering Services, Motorsports, and Special Applications profit center combines the previously separate Engineering Services with the activities in Motorsports and Special Engines. The Letrika Group was integrated into the group as the Electric Drives and Applications profit center in September 2014. The Thermostats and Valves profit center was integrated into the Thermal Management business unit in the fourth quarter of 2014 to strengthen MAHLE's systems competence. The reporting on the following pages is based on the fact that the unit was still being reported as an independent profit center until the end of 2014.

The Engine Systems and Components business unit recorded sales totaling EUR 2,529.8 million in the year under report, slightly exceeding the level of the previous year (EUR 2,494.5 million). Adjusted for negative exchange rate effects, the sales growth amounted to 2.9 percent. The increase in sales volumes in the growth region of Asia/Pacific made a particularly positive contribution to the development of sales. Furthermore, sales were increased by the intra-group transfer of the South American sinter activities into the business unit, which took place at the beginning of 2014. In terms of products, alongside the ramp-up of series production for passenger car diesel steel pistons, the valve and assembled camshaft product groups played a particularly significant part in the sales growth.

BUSINESS UNITS

Engine Systems
and Components

Filtration and
Engine Peripherals

Thermal
Management

Aftermarket

Industry

PROFIT CENTERS

Engineering
Services,
Motorsports,
and Special
Applications

Small Engine
Components

Actuators
and Heaters

Electric Drives
and Applications

Thermostats
and Valves
(Behr Thermost-
tronik – BTT)

Control Units
(Behr-Hella
Thermocontrol
– BHTC)

Front-end
Modules
(Hella Behr
Plastic Omnium
– HBPO)

The Filtration and Engine Peripherals business unit recorded sales of EUR 1,981.4 million in 2014, following the amount of EUR 1,946.4 million in the previous year. The business unit thus achieved solid growth of 1.8 percent, which amounted to 3.0 percent without taking exchange rate effects into consideration. Oil and fuel filters, valve cover modules, and air intake modules accounted for the largest increases in sales. The emerging pump segment also made a significant contribution to sales growth with controlled oil pumps.

The Thermal Management business unit, which originated from the first consolidation of the MAHLE Behr Group, accounted for around 30 percent of group sales, with EUR 2,995.5 million in 2014, making it the MAHLE Group's largest business unit. Around half of its sales were generated in the two key product categories of engine cooling and air conditioning. Because of the first consolidation in October 2013, the previous year's values, which cover three months, are only comparable with the 2014 sales figures to a limited extent. Looking at the year as a whole, the business unit developed positively in operational terms and has advanced to become the MAHLE Group's most important growth driver. Substantial investments were made in the Asia/Pacific and eastern Europe regions to further diversify the production footprint. In Germany, further progress was made with the integration of the Pforzheim plant into the Mühlacker plant.

The Aftermarket business unit realized sales of EUR 827.3 million in 2014 (2013: EUR 795.8 million) and thus achieved a sales increase of 3.9 percent. On the one hand, the development of sales was substantially impacted by negative exchange rate movements; on the other hand, the first full-year proportionate consolidation of the joint venture Behr Hella Service (BHS) had a positive influence on sales. Adjusted for both of these effects, sales exceeded the previous year's level by 2.1 percent.

Throughout the business year, the development of the Industry business unit was shaped by a primarily cyclical weakness in demand for products from the Engine Components and

Filtration subsegments in Europe. As a result, sales fell by 2.9 percent to EUR 432.6 million.

The profit centers recorded cumulative sales amounting to EUR 1,175.8 million in the year under report. This significant increase compared with the previous year (EUR 512.1 million) was largely influenced by structural changes. The first full-year inclusion of the Thermostats and Valves, Control Units, and Front-end Modules profit centers has thus provided a significant boost to sales. The Letrika Group was also included as a profit center for the first time as of September 1, 2014.

Development across the regions

MAHLE is represented in 32 countries with its own production locations. The company's international positioning is supplemented by research and development centers in all four core regions as well as a global supplier network. This gives the MAHLE Group a widespread international market presence, which is reflected in a balanced portfolio of customers that are supported locally.

In the 2014 business year, the high degree of diversification meant that overall economic and market-specific weaknesses in certain regions such as South America were more than offset by positive developments in other regions such as North America and Asia/Pacific. Business development by region, as outlined below, is based on sales in the country of manufacture.

Europe

In the Europe region, MAHLE achieved a sales increase of 50.5 percent in 2014, bringing total sales to EUR 5,165.6 million. Consequently, the share of group sales rose to 52.0 percent (previous year: 49.5 percent). This shift was primarily caused by the effects of the first consolidation of MAHLE Behr and the Letrika Group, which have a strong presence in the European markets. Taking currency and consolidation aspects into consideration, sales remained at around the previous year's level.

The business development of the Engine Systems and Components business unit in 2014 was influenced by the weak performance of Europe's commercial vehicle sector. Declines in the sales of components for commercial vehicles were offset by growth in the sales of assembled camshafts and valves. All in all, consolidated sales remained almost unchanged compared with the previous year at EUR 1,177.5 million. In line with the slight growth in passenger car production in Europe, the Filtration and Engine Peripherals business unit was able to increase its sales by 1.8 percent to EUR 676.4 million. Disproportionately strong growth was achieved in Turkey and Romania in particular. In Romania, the production of air filter modules, oil mist separators, and cabin air filters established in the previous year was expanded. The launch of the pump system business at the German locations Auengrund and Wustermark also contributed to further sales growth.

The Thermal Management business unit recorded sales of EUR 1,702.3 million in 2014, thus accounting for almost a third of the MAHLE Group's sales in the Europe region. Looking at the year as a whole, sales exceeded expectations because of higher sales of air conditioning products. At EUR 410.7 million, the sales of the Aftermarket business unit were bolstered by the positive development of sales in western Europe. In contrast, business development in eastern Europe suffered adverse effects due to the uncertain political and economic conditions. Accelerated by the sharp depreciation of the Russian ruble toward the end of the year, this also had an adverse impact on the activities of the Russian unit.

As a result of the significant decline in demand in the Engine Components and Filtration subsegments, the Industry business unit's sales of EUR 343.9 million fell short of the previous year's level (-9.8 percent). As part of the consolidation of locations in the Filtration subsegment, production in Hamburg/Germany and Stoke-on-Trent/United Kingdom was shut down at the end of 2014. The profit centers generated EUR 854.8 million in the Europe region. The sharp increase compared with the previous year (EUR 389.2 million) is due to the overall positive changes in the consolidation group.

North America

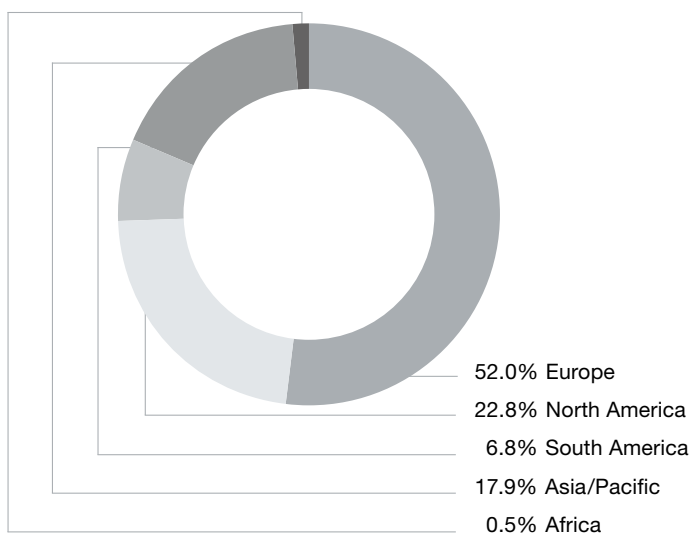
In the North America region, the MAHLE Group realized sales of EUR 2,266.6 million during the period under report, corresponding to growth of 54.4 percent. This substantial increase is primarily attributable to changes in the consolidation group. Adjusted for consolidation and exchange rate effects, the positive market development allowed MAHLE to generate sales growth totaling 5.3 percent in North America. Altogether, the North American business contributed 22.8 percent to group sales.

In a favorable market environment, the Engine Systems and Components business unit was able to significantly increase its sales by EUR 7.8 percent to EUR 603.1 million. This growth was primarily achieved with components for heavy-duty commercial vehicle engines. The Filtration and Engine Peripherals business unit, which is predominantly active in the passenger car sector, recorded a high growth rate in 2014 as in previous years, generating sales of EUR 534.8 million (+4.5 percent). Growth in the sales of air intake modules more than compensated for negative exchange rate effects.

The North American entities of the Thermal Management business unit achieved sales of EUR 803.0 million. Over the course of the year, sales of vehicle air conditioning products developed particularly positively. At EUR 127.2 million, sales in the Aftermarket business unit in 2014 were higher than in the previous year (EUR 121.1 million). While the U.S. activities remained stable, export sales in other regions declined in comparison with the previous business year.

Assisted by production ramp-ups in the Thermal Systems subsegment, the Industry business unit was able to increase sales in the North American market by 2.8 percent to EUR 36.3 million. In the 2014 business year, the profit centers realized a sales volume of EUR 162.2 million, which largely originated from the proportionate consolidation of the two joint ventures Behr-Hella Thermocontrol and Hella Behr Plastic Omnium.

SALES BY REGIONS //



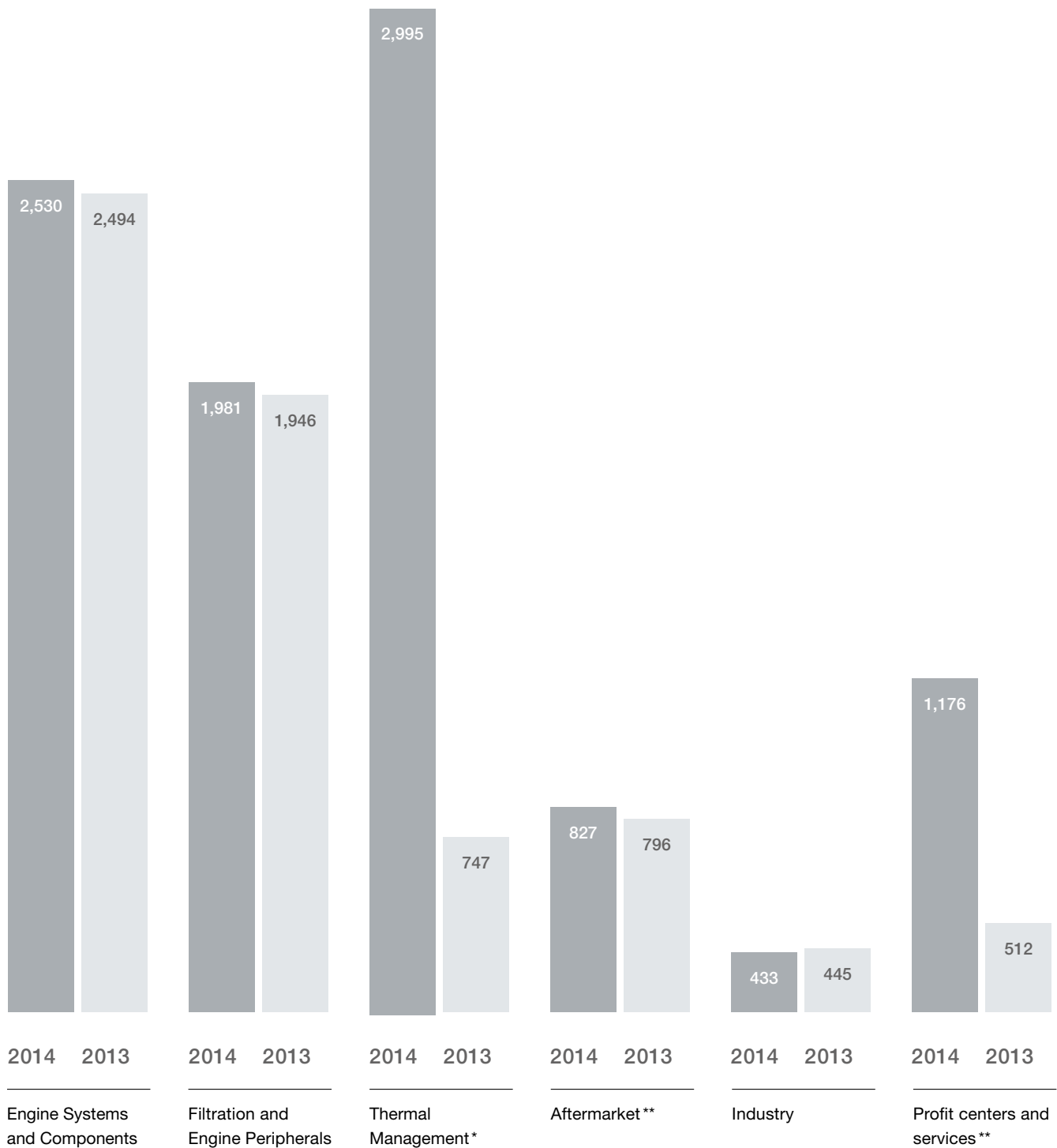
DEVELOPMENT OF THE BUSINESS UNITS, PROFIT CENTERS, AND SERVICES //

Consolidated sales in million EUR

The sales breakdown shown here corresponds to the reporting structure of the group as at December 31, 2014.

* including sales of the Thermal Management business unit for the entire year, whereas in the previous year only the months of October to December were included

** including sales of BHS (aftermarket) and BTT, BHTC, and HBPO (profit centers and services) for the entire year, whereas in the previous year only the months of October to December were included; also including the sales of the Letrika Group as of September 2014



South America

In the South America region, the sales of the MAHLE Group remained 3.3 percent below the level of the previous year at EUR 679.9 million, owing to the difficult market environment. Currency exchange rate effects had a substantial adverse impact of EUR 66.8 million. Without taking exchange rate effects into consideration, the South American entities reported sales growth of 6.2 percent; adjusted for consolidation effects, a decline of 4.9 percent was recorded.

In 2014, the sales of the Engine Systems and Components business unit amounted to EUR 306.6 million, having reached EUR 340.6 million in the previous year. Adjusted for the integration of the South American sinter business at the beginning of 2014, the previous year's value was missed by EUR 65.2 million. This decline is partly due to negative exchange rate effects of EUR 24.0 million. Sluggish domestic demand in South America also adversely impacted the development of sales. With sales of EUR 64.9 million, the Filtration and Engine Peripherals business unit was unable to reach the previous year's considerably increased sales level for the same reasons. Adjusted for currency exchange rate effects, sales remained at around the previous year's level.

The weak South American economy significantly compromised the sales of the Thermal Management business unit in 2014. The situation was exacerbated by postponed ramp-ups and negative exchange rate effects. Over the year as a whole, sales amounting to EUR 87.6 million were recorded. The Aftermarket business unit, which generated over a quarter of its business in South America, with sales of EUR 215.4 million, was also hampered by unfavorable currency exchange rate effects in particular during the year under report. Adjusted for these effects, a sales increase of 10.2 percent was recorded. In line with the trends of the more recent past, Argentina also showed positive development in 2014.

The sales of the Industry business unit rose significantly, albeit at a low level. Sales in the profit centers fell to EUR 1.9 million as a result of the intra-group transfer of the South American sinter business.

Asia/Pacific

In the Asia/Pacific region, MAHLE generated a sales volume of EUR 1,782.2 million, corresponding to growth of 34.5 percent. On the one hand, this figure is positively skewed by the consolidation effects; on the other hand, it is negatively distorted by currency exchange rate effects. Adjusted for both effects, the MAHLE Group was able to make considerable gains, achieving an increase of 8.9 percent in sales.

The Engine Systems and Components business unit reported sales of EUR 442.6 million. This represents an increase of 6.6 percent compared with the previous year's figure, or 9.8 percent when adjusted for negative exchange rate effects. This positive development was primarily driven by the Chinese market, where MAHLE has grown significantly faster than vehicle production. Further gains of market share were achieved in valves and pistons for passenger car engines. The Asian entities of the Filtration and Engine Peripherals business unit realized sales of EUR 705.3 million (previous year: EUR 699.3 million). After adjustment for negative exchange rate effects, the sales increase amounted to 3.0 percent, which was driven by the steady growth in China. The new plants in Wuhan/China and Jakarta/Indonesia contributed to growth following the start-up of production and first sales. In contrast, the VAT increase in Japan hampered the development of sales there.

The Thermal Management business unit was able to benefit from strong market demand in Asia and yielded above-plan sales of EUR 359.8 million. This positive trend was also reflected in the fourth quarter, during which the business unit grew organically by a double-digit percentage compared with the same period of the previous year. At EUR 68.7 million, the sales of the Asian Aftermarket entities remained at the previous year's level. Taking into account negative exchange rate effects, sales were increased by 3.1 percent. Sales in China and India developed particularly positively.

In the 2014 reporting year, the Industry business unit produced sales amounting to EUR 48.9 million, almost doubling the sales level of the previous year (EUR 25.8 million). This was largely due to a rise in sales in the Thermal Systems subsegment as a result of a temporary boom in the Chinese railroad market. The profit centers generated sales of EUR 156.9 million, exceeding the previous year's figure even after adjusting for consolidation effects.

Africa

The locations in South Africa achieved sales amounting to EUR 48.1 million in 2014. The increase compared with the previous year's value of EUR 13.2 million is due to the first full-year consolidation of MAHLE Behr.

TECHNOLOGY AND INNOVATION //

Once again, MAHLE was able to realize promising new and ongoing developments in 2014. Global development focused on further increasing the efficiency of vehicles and reducing CO₂ emissions.

As a leading development partner to the automotive and engine industry, the MAHLE Group has unique systems competence in the area of powertrains, engine peripherals, and thermal management. With a network of ten major research and development centers, MAHLE has a local presence in all the core markets of the automotive industry. As at the end of 2014, the MAHLE Group employed almost 5,000 people in the field of research and development worldwide. In total, EUR 552.3 million was invested in research and development activities across the group in 2014, corresponding to a share of 5.6 percent of group sales (previous year: 4.8 percent).

The series production launch of the world's first steel piston in a passenger car diesel engine counts as one of the most important development successes of the past business year. The advantages of the MONOTHERM® steel piston compared with the aluminum pistons commonly used up to now relate to the reduction of frictional loss and improvement in thermodynamics, which all adds up to fuel savings of around three percent in the New European Driving Cycle (NEDC). The new EVOLITE® piston generation was developed for gasoline engines. With a weight reduction of five percent and a significant reduction in friction compared with its predecessor, it achieves a CO₂ reduction of about 0.5 g/km in the NEDC. MAHLE has developed nitrided intake valves for commercial vehicle diesel engines, which offer excellent wear protection and significantly heightened resistance to thermomechanical fatigue. For particularly effective heat dissipation in gas engines and demanding diesel applications, MAHLE has developed sodium-filled hollow valves that can achieve a temperature reduction of about 80 to 130 kelvin in the hollow cavity—thereby considerably reducing the overall wear in the valve/valve seat insert system.

In Filtration and Engine Peripherals, MAHLE is putting greater emphasis on modularity and functional integration—for example, by introducing cylinder head cover modules with integrated oil mist separation or modular systems for commercial

vehicle fuel filter modules. In order to provide even more cost-effective solutions in the future, MAHLE is pursuing the advanced approach of a cross-platform, modular filter system for commercial vehicle applications.

With the planned future vehicle system voltage of 48 volts in mind, MAHLE has specifically designed and developed a 48-volt main water pump, which provides highly efficient on-demand engine cooling with an electrical output of about one kilowatt.

In Thermal Management, MAHLE is working on coupling the charge air cooling system to the air conditioning system. This enables on-demand charge air cooling to below the ambient temperature, substantially increasing the combustion efficiency in gasoline engines. As regards engine cooling, MAHLE has succeeded in achieving the required increase in the capacity of the cooling system for Euro VI applications in commercial vehicles without any impact on consumption or weight by means of a lightweight design and by raising the specific output of individual components. MAHLE is adopting the approach of an indirect cooling system for heavy-duty commercial vehicles in order to further increase cooling capacity and efficiency and to reduce the complexity when integrating future additional cooling requirements. In the field of vehicle air conditioning, MAHLE is making strides in the development of air conditioning systems with the refrigerant R744 (CO₂) in order to bring this into series production as an alternative to R1234yf.

In the nonautomotive business, MAHLE is focusing on developing more innovative filter technologies and more efficient cooling systems. To prevent electrostatic charging of future hydraulic fluids, for instance, a conductive filter medium with a conductive connection to the end plates has been patented.

PURCHASING //

The MAHLE Group is mitigating the risk of bottlenecks by monitoring supplier quality more extensively and adopting a multisupplier strategy for critical parts.

MAHLE uses various raw materials such as steel, aluminum, nickel, copper, and resins for production. During the course of 2014, purchase prices in those material groups of importance to MAHLE have developed inconsistently. Aluminum recorded a continuous rise in prices up until the third quarter. Following a brief drop in prices, the upward trend continued again until the end of the year, with the annual average price corresponding to the price level of 2013. The substantial increase in the cost of the premium for physical delivery, due to the artificial scarcity of supply on the physical market, had a huge impact. This trend was driven by the limited removal quantities from the raw material warehouses despite high inventory levels. The price of nickel rose significantly at the beginning of the year, with the average markedly above the level of 2013 at the end of the year. In contrast, the price of copper experienced a downturn and was more favorable than the 2013 annual average. Nonlisted raw materials such as silicon or magnesium mainly exhibited an upward trend during 2014 and were more expensive than in the previous year. The price of steel and scrap fell slightly over the course of the year.

Despite a sharp decline in crude oil prices, this price trend could not be observed in crude oil derivatives such as cyclohexane or polypropylene because of the high level of demand and lack of investment in capacity expansion. Therefore, increases in the costs of some resins had to be accepted. The price of cellulose—used as a basis for filter paper—also climbed further in comparison with 2013.

A similarly inconsistent development emerged in the price of electricity. The slightly reduced electricity price quotations on the European energy exchanges were offset by a rise in the EEG levy in Germany along with other effects of the energy revolution. In Brazil, low rainfall and the resulting decrease in the amount of energy produced in hydropower plants brought about significant increases in electricity prices. The Asian markets, partially affected by government regulations and the strong U.S. dollar, also recorded inconsistent trends in

the cost of energy. While electricity prices remained stable in China, prices rose remarkably in Japan. There was a moderate rise in electricity costs in North America. In Mexico, gas and electricity prices increased considerably, but displayed a downward trend during the second half of the year.

The further development of prices in the various energy markets is currently difficult to predict. MAHLE utilizes a risk-optimized procurement strategy with the aim of achieving greater costing accuracy as well as lower energy prices. The rigorous implementation of measures to increase energy efficiency furthermore contributes to the reduction of consumption.

An important element of risk management in terms of the development of raw material prices are material price escalation clauses agreed upon with the customer. Price risks above and beyond this—as long as they relate to exchange-traded, standardized raw materials and where it is deemed economically favorable—are counteracted by OTC hedging transactions on the basis of defined rules.

In the year under report, purchasing was confronted with challenges concerning problems in the ramp-up and series production phase of projects as well as the cancellation of individual orders by suppliers. For this reason, particular attention was paid to development activities concerning supplier quality as part of the group's preventive risk management. MAHLE has also intensified its monitoring of suppliers' financial stability by means of an early warning system and always considers a multisupplier strategy when awarding contracts for critical parts.

Across the purchasing areas, additional focus has been placed on the global harmonization of processes. The procurement of nonproduction materials has been organizationally merged as part of the MAHLE Behr integration. Good progress is being made with the harmonization of business processes and procedures as well as the formation of synergy and bundling effects.

PRODUCTION AND HUMAN RESOURCES //

The high quality standards of MAHLE's series supply have been recognized by numerous customer awards. Motivated and qualified employees are the key to maintaining these high standards and further developing the group's technological strength.

Production

The MAHLE Group has more than 150 production locations in 32 countries. Following the integration of the Letrika Group, MAHLE is now also represented for the first time in Slovenia, Bosnia and Herzegovina, and Belarus. In the year under report, the expansion of the production footprint was also accelerated by the opening of new plants in Shenyang/China, Wuhan/China, and Jakarta/Indonesia, as well as the expansion of the development and production location in Shanghai/China.

Besides a high level of innovation, high-quality and reliable products are essential for ensuring the ongoing business success of MAHLE. Early planning and consistent tracking of quality features, the firm anchoring of quality targets in the business plan, and the process of continuous improvement are just some of the elements that guarantee the group's high quality standards. The number of customer complaints and the quantity of defective products shipped are analyzed to assess the quality of series supply. Once again, MAHLE succeeded in further improving both key figures in 2014. The high quality of products and systems were once more reflected by the numerous customer awards received during the period under report.

MAHLE regards comprehensive occupational health, safety, and environmental protection (HSE) as a basic prerequisite for safe and environmentally friendly development and production processes. For this reason, location-specific HSE goals — designed to ensure the sustainable use of resources — are formulated on a yearly basis to complement the existing group-wide processes and measures. In the 2014 business year, particular attention was paid to the goal of increasing energy efficiency and optimizing facility management. Analyzing the degree to which the measures have been implemented and conducting annual audits are key components of HSE management.

Employees

As at the end of 2014, 66,234 people were employed by the MAHLE Group. On an adjusted basis to include interns, the year-on-year increase of employees across the entire group amounted to 3.8 percent. This rise is largely due to the acquisition of the Letrika Group, which is also reflected in the higher number of employees in Europe. While the headcount in the North America and Asia/Pacific regions increased in view of the high level of orders there, the market slowdown in South America necessitated personnel adjustments. Several European locations had to resort to the instrument of short-time work to temporarily stave off excess capacity.

With 29,073 people, the Engine Systems and Components business unit has the highest staffing level, accounting for 43.9 percent of the employees of the MAHLE Group. The Filtration and Engine Peripherals business unit employs 15.5 percent of the total headcount (10,280 employees), whereas under the reporting structure that was in place until December 31, 2014, 22.1 percent of the MAHLE workforce is assigned to the Thermal Management business unit (14,610 employees). With the integration of the Letrika Group, the combined share of employees in the other business units, profit centers, and services has risen to 18.5 percent. The global sickness absence rate (excluding joint ventures) has improved to 3.0 percent (previous year: 3.9 percent).

The market environment in which MAHLE operates is highly dynamic and characterized by pronounced technological complexity. Motivated and qualified employees are the key to ensuring the sustainability of the company. For this reason, MAHLE once again invested heavily in qualification activities for its employees, spending EUR 10.1 million in 2014 (previous year: EUR 7.4 million). In addition to a variety of workplace-related learning measures, MAHLE employees attended 54,628 qualification activities during the year under report.

NET ASSETS, FINANCIAL POSITION, AND RESULTS OF OPERATIONS //

The results of operations were shaped by the effects of the first full-year consolidation of the MAHLE Behr Group. Balance sheet developments included the strengthening of equity and a change in the debt financing structure.

Results of operations

In 2014, the year under report, MAHLE succeeded in improving group sales from EUR 6,941.3 million in 2013 to EUR 9,942.4 million. At around EUR 10 billion, the company was thus able to achieve the level of sales expected in the previous year. The main contributor to this strong growth was the consolidation effect from the first full-year consolidation of the MAHLE Behr Group in 2014. However, exchange rate effects worked in the opposite direction and reduced group sales by EUR 127.6 million. Adjusted for exchange rate effects as well as changes in the consolidation group, MAHLE was able to increase sales by 2.0 percent in comparison with the previous year. Hence, the organic development of sales roughly followed the course of global vehicle production.

Gross profit was improved by just under EUR 500 million to EUR 1,905.7 million, whereas at 19.2 percent, the gross margin remained below the previous year's level. This largely relates to effects from the first full-year consolidation of MAHLE Behr in the MAHLE consolidated financial statements. On the one hand, this business unit's low level of vertical integration led to a reduction in the gross margin. On the other hand, depreciation and amortization of hidden reserves that were obligatorily disclosed as part of the purchase price allocations for MAHLE Behr and the Letrika Group impaired gross profit by a total of EUR 95.4 million.

Earnings before interest and taxes (EBIT) rose from EUR 421.5 million to EUR 514.1 million. The operating result, a key figure similar to EBIT used for internal control, was also enhanced considerably across the group. While selling and general administration expenses were improved slightly relative to sales, research and development costs showed a year-on-year increase of 64.3 percent. This was particularly due to the effects related to MAHLE Behr. By contrast, the balance of other operating income and expenses rose by EUR 55.9 million to EUR 102.2 million. Besides a marked improvement in operational business activity, this increase can be attributed to positive special effects from divestment proceeds and the purchase price allocations. However, in total, the resulting subsequent measurements from the purchase price allocations had a negative impact on EBIT, lowering the EBIT margin to 5.2 percent. After adjustment for this effect, the EBIT margin remained at around the previous year's level.

At EUR 401.0 million, the result from ordinary activities significantly exceeded the previous year's level in absolute terms, but the return on sales fell slightly from 4.4 percent to 4.0 percent, in line with the EBIT margin. Although the contribution to profit made by the former Behr Group for nine months in the previous year was omitted as a result of the full consolidation and even though the balance sheet volume also increased

CONSOLIDATED INCOME STATEMENT //

Figures in million EUR

Business year	2014		2013	
	Value	%	Value	%
Sales	9,942.4	100.0%	6,941.3	100.0%
Cost of sales	-8,036.7	-80.8%	-5,530.7	-79.7%
Gross profit on sales	1,905.7	19.2%	1,410.6	20.3%
Selling expenses and general administrative expenses	-941.1	-9.5%	-698.0	-10.1%
Research and development expenses	-552.3	-5.6%	-336.2	-4.8%
Other operating income and expenses	102.2	1.0%	46.3	0.7%
Financial result	-113.5	-1.1%	-116.2	-1.7%
Result from ordinary activities	401.0	4.0%	306.5	4.4%
Taxes	-121.8	-1.2%	-70.9	-1.0%
Net income	279.2	2.8%	235.6	3.4%

substantially, the financial result improved marginally. The main reason for this improvement was the higher income from the return on plan assets related to pension obligations. The income tax ratio rose to 23.1 percent from 17.0 percent in the previous year. This increase was mainly due to the fact that special effects from the previous year no longer applied. However, the weaker situation in terms of profits in Brazil during the 2014 business year had the opposite effect, as did tax revenues from previous years. In total, the net income for the 2014 business year improved by EUR 43.6 million to EUR 279.2 million.

These figures met the qualified comparative forecast from the previous year, with a satisfactory result achieved overall.

Net assets position

MAHLE's balance sheet total rose by EUR 632.6 million to EUR 6,758.4 million in the 2014 business year. The main reasons for the balance sheet extension were the first consolidation of the Letrika Group, positive foreign currency exchange rate effects from the conversion to reference date rates, and high capital expenditure on tangible fixed assets. Despite an increase of 10.3 percent in the balance sheet volume, the equity ratio improved noticeably from 36.0 percent to 37.8 percent, while the net financial debt remained stable.

As at the balance sheet date, fixed assets rose by EUR 185.5 million to EUR 3,121.6 million. This development essentially related to the fact that capital expenditure on tangible fixed assets clearly exceeded depreciation and amortization, as well as to the first consolidation of the Letrika Group. In contrast, the scheduled depreciation of hidden reserves—disclosed in connection with the purchase price allocation of MAHLE Behr—with respect to trademark rights, customer relationships, and acquired technologies led to a decline in intangible assets. The disclosure of hidden reserves as part of the purchase price allocation of the Letrika Group did not compensate for this effect in terms of its magnitude.

Currency conversion effects due to the revaluation of some major foreign currencies against the euro toward the end of the year, which extended the balance sheet, along with the acquisition of the Letrika Group's assets, also led to an increase in current assets of EUR 384.6 million, bringing the

figure to EUR 3,409.8 million. Inventories, in particular, rose to EUR 1,097.4 million, which is largely in line with the increased sales volume when adjusted for the aforementioned special effects. The same applies to trade receivables, which, after adjustment for the first consolidation and foreign currency exchange rate effects, grew by 2.4 percent to EUR 1,494.8 million. As at the balance sheet date, the MAHLE Group held long-term securities and liquid assets amounting to EUR 527.0 million. The year-on-year increase (EUR +61.4 million) is attributable not only to the coverage of the business expansion but also to a time lag between the absorption and scheduled use of the funds.

The liabilities side of the consolidated balance sheet was marked by a sharp rise in equity as well as a change in the financing structure. As at December 31, 2014, equity could be increased by EUR 347.3 million to EUR 2,554.8 million, considerably raising the equity ratio. The growth in accruals for pensions can be attributed in particular to the generally lower interest rate level and the associated reduction in discount factors. Nevertheless, thanks to increases in the value of the associated plan assets, the rise in the net position was limited to EUR 503.2 million (EUR +36.9 million). After adjusting for currency exchange rate and consolidation effects, the other accruals decreased slightly to EUR 1,168.2 million. The accruals formed in 2012 as part of the investigations into potential antitrust violations were adjusted in the balance sheet to reflect new findings after the balance sheet date.

To broaden its financing sources, MAHLE established a Medium Term Note Program on the Luxembourg Stock Exchange in April 2014, which puts the company in a position to issue bonds worth up to EUR 1 billion on the open market. In May 2014, the first bond was issued with a volume of EUR 300 million, a term of seven years, and a coupon of 2.5 percent. Subsequently, a further EUR 29 million was issued as a five-year private placement. The funds these bonds raised were used to repay liabilities to banks as well as a hybrid bond that was recorded under other payables in the previous year. Furthermore, MAHLE replaced German private placement loans ("Schuldscheindarlehen") with new issues in the year under report. Adjusted for currency exchange rate and consolidation effects, trade payables rose by EUR 17.8 million to EUR 888.0 million, which reflects the increase in business volume.

Besides the circumstances depicted in the balance sheet, as at December 31, 2014, there were significant off-balance-sheet transactions amounting to EUR 115.4 million (previous year: 77.2 million) in connection with building and land leasing agreements, and EUR 152.7 million (previous year: 153.3 million) in connection with factoring. The increase in building and land leasing agreements is largely due to the renewal of a lease agreement. The off-balance-sheet transactions led to a strengthening of the liquidity situation and the diversification of financing sources.

Capital expenditure

Group-wide capital expenditure on tangible fixed assets amounted to EUR 488.1 million in 2014, exceeding the previous year's value by EUR 90.7 million. This increase largely relates to the first full-year consolidation of the MAHLE Behr Group. The investment ratio in relation to sales was 4.9 percent, down from 5.7 percent in the previous year. In comparison with depreciation, a ratio of 134.8 percent was recorded, following the previous year's value of 139.8 percent.

The MAHLE Group's capital expenditure on tangible fixed assets was primarily geared toward creating the necessary conditions for further growth. Central investment projects included preparation for further series orders and the implementation of new production technologies such as those for steel pistons for diesel passenger cars. Furthermore, to strengthen its presence in major growth markets, MAHLE invested substantially in the expansion and construction of production locations in close proximity to markets and customers. In 2014, a total of three plants in the Filtration and Engine Peripherals as well as the Thermal Management business units in China and Indonesia commenced production. In addition, the substantial investment in the third expansion of the research and development center in Shanghai/China was completed. The Bosch Mahle Turbo Systems joint venture simultaneously started the production of exhaust gas turbochargers for the Chinese market on the same campus. In parallel, preparations were expedited for the construction of additional new plants in Mexico and China for the Filtration and Engine Peripherals as well as Thermal Management business units. These should start production during 2015, where they will create capacity for further growth.

The growth regions of Asia/Pacific (24.9 percent of the capital expenditure on tangible fixed assets) and North America (19.1 percent) therefore represent important regional focal points of the investment activities. Capital expenditure on tangible fixed assets in the European markets amounted to around 46.3 percent. This increase compared with the previous year's value of 42.3 percent is attributable to MAHLE Behr's strong presence in Europe.

During the 2014 business year, alongside its capital expenditure on tangible fixed assets, MAHLE set the course for future growth by making strategic acquisitions. Particularly worth mentioning here is the acquisition of the Letrika Group, which enabled MAHLE to expand its mechatronics and electrics activities. The Group also invested further in the Bosch Mahle Turbo Systems joint venture and increased its participation in the company Kokusan Denki Co., Ltd., listed on the Tokyo Stock Exchange, by a further 8.05 percent to 38.87 percent.

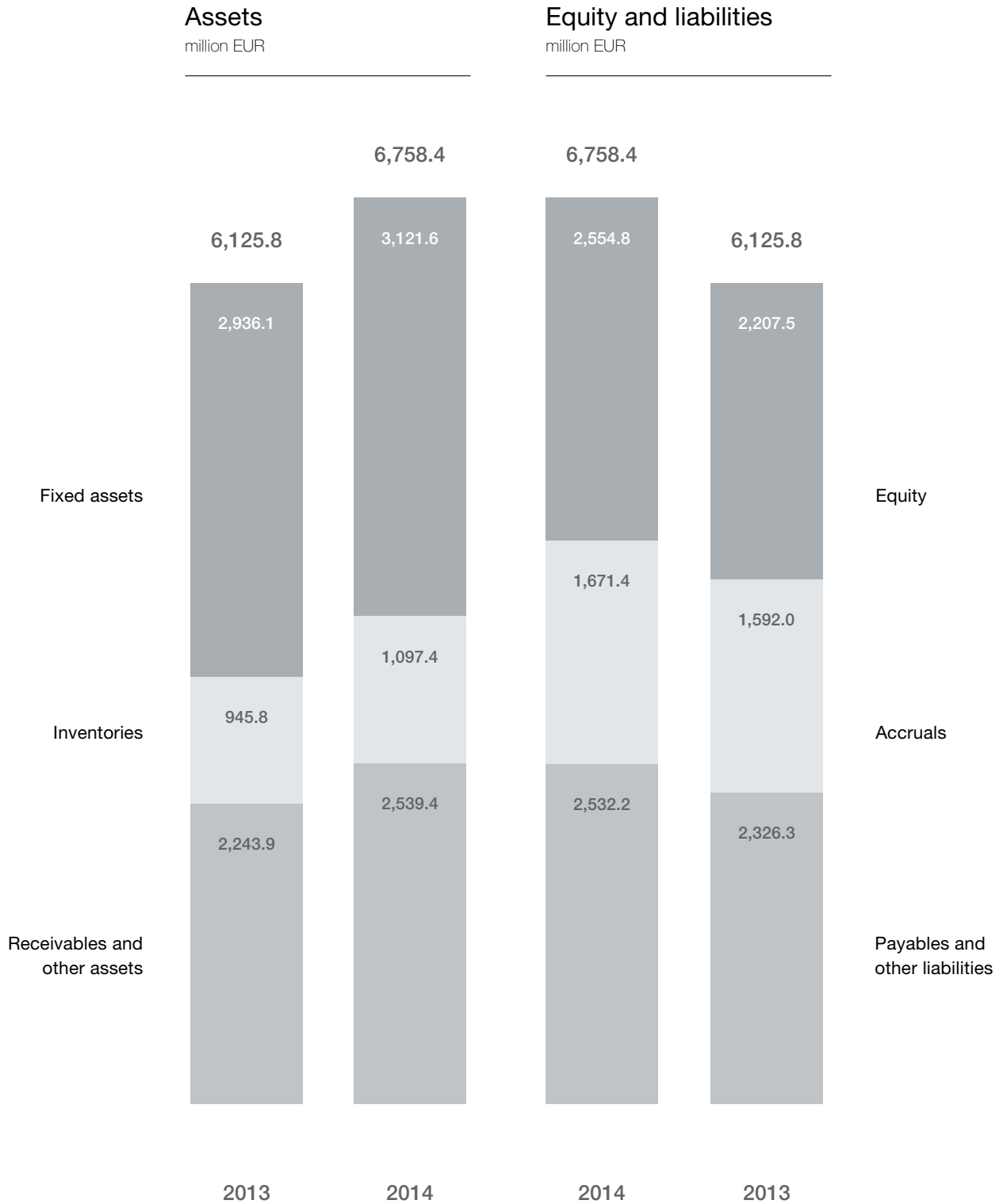
Financial position

In the 2014 business year, MAHLE was able to generate a cash flow from operating activities of EUR 713.2 million. The substantial increase in comparison with the previous year (EUR 487.5 million) is due to an improvement in net income for the period, higher depreciation, and the lower additional commitment of funds in working capital. These effects are partly due to the first full-year consolidation of MAHLE Behr.

Overall, investment activities resulted in a largely stable cash outflow compared with the previous year, with a figure of EUR 604.8 million (previous year: -599.2 million). The cash flow from operating activities was thus able to completely cover the cash requirements for investments and simultaneously finance an increase in the cash on hand. Accordingly, the balance of the cash flow from financing activities fell in comparison with the previous year (EUR 68.0 million), reaching a negative amount of EUR -13.0 million. The large amounts of the receipts and payments relate partly to the refinancing of German private placement loans ("Schuldscheindarlehen") and the diversified financing base in the form of first-time bond issues. Access to the bond segment provides MAHLE with an additional source of financing that will serve to ensure long-term growth. Moreover, the MAHLE Group has access to committed but unused credit lines amounting to EUR 1,570 million.

Changes to cash funds that arose as a result of exchange rate movements and valuation procedures came to EUR -34.6 million. The cash inflow in the reporting period thus amounted to EUR 60.9 million.

BALANCE SHEET STRUCTURE OF THE MAHLE GROUP //



OPPORTUNITY AND RISK REPORT //

As a globally operating company, MAHLE is exposed to a variety of opportunities and risks. Forward-looking and targeted risk management plays a role in ensuring the long-term success of the company.

The established opportunity and risk management system of the group is designed to identify, assess, and control business and financial opportunities and risks associated with business operations. A significant part of the rules of the German Corporate Governance Code, although not legally binding for the MAHLE Group as a privately held and foundation-owned company, have been applied voluntarily insofar as they are suitable and appropriate with regard to the shareholder and governance structure of MAHLE. On the basis of inspection plans that change every year, the viability of the opportunity and risk management system is checked regularly by means of globally active internal auditors. The system is characterized by the following focus areas:

Market and technological trends

The identification of opportunities and risks at an early stage is ensured by systematic monitoring of market and technological trends. Information from these analyses is used in decision making on future business segments and new production processes. Derived measures are included in the strategic or budget planning and their implementation is monitored in the monthly management reporting. The MAHLE Group addresses opportunities and risks arising from the increasing environmental awareness of the markets and new statutory requirements toward reducing emissions by incorporating relevant topics into international research and development activities at an early stage. Efficiency technologies as well as downsizing, the MAHLE range extender, and turbocharging enable the group to market competitive and innovative products. With a continually expanding portfolio of electric actuators and engine accessories, MAHLE is benefiting from the growing hybridized drive market.

Economic fluctuations or changes to the political framework in individual countries can have a significant impact on the group's business development within the various regions. In light of prevailing uncertainties, the MAHLE Group's global orientation represents a major stabilizing factor. With its continuous expansion and heavily diversified customer and prod-

uct portfolio, the MAHLE Group is aiming to achieve optimum dispersion of regional market and customer risks. Potential declines in demand in individual markets or from individual customers may be absorbed at least partially by counteracting market cycles in other regions and make it possible to benefit from regional growth potential.

Procurement and production

Minimizing risks arising from the procurement markets represents another main focus of risk management. Risks in the form of unexpected supply bottlenecks and/or price increases in purchasing are counteracted by means of regular supplier evaluations, use of alternative raw material sources and materials, and preservation of supplier independence. Furthermore, procurement risks are reduced by appropriate safety stocks and OTC hedging transactions.

The MAHLE Group operates production locations in every key region. This allows for regular exchange of best practices and various production philosophies 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 safety standards, 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 damage events and liability risks, are covered to an economically prudent degree by means of insurance policies.

Finance management

A systematic and group-wide finance management system ensures the optimum 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 yield considerations. It aims to secure financial independence, limit financing risks, and allow the group to exploit business opportunities at all times.

Currency risks are identified using a group-wide planning and reporting system. Risks are hedged with a 24-month horizon. 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. According to value-at-risk analyses, the interest rate risk is low. 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 transactions.

Human resources, IT, and accounting

The recruitment 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 exploit opportunities arising from market and technological changes, personnel requirement planning is linked with developments in the relevant markets and with strategically relevant technologies and business segments. The risk of losing employees in strategically important corporate 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 situa-

tions. The defined security standards are geared toward not only the technical specifications of the hardware and software but also functional security structures and organizational provisions. In addition to detailed backup and recovery procedures, the risk of severe disruptions is reduced by, for example, securing access procedures as well as mirroring and archiving data on a daily basis.

With regard to the accounting process, the internal controlling and risk management system is aimed at ensuring compliance and effectiveness of accounting and financial reporting. Besides guidelines and principles, the system also includes measures to prevent and uncover reporting errors. The consolidated financial statements are created centrally with reporting data transferred from subsidiaries. Besides systematic controls, compliance with group guidelines is ensured by means of specialist advice and manual checks, as well as the validation of the data for plausibility by the group accounting department.

Regulations and legislation

The 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 arising from fiscal, occupational, competition, patent, antitrust, and environmental regulations and legislation. 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 revised MAHLE compliance structure. Key elements of the compliance structure include the new MAHLE Business Code, a global compliance organization, a training concept for risk areas relevant to compliance, and various preventive measures.

In 2012, an accounting provision in the form of an accrual was created for the investigation proceedings brought against the Behr Group in May 2012 by antitrust authorities for suspected restrictive practices in automotive thermal systems. The accrual was adjusted as at December 31, 2014, on account of findings after the balance sheet date.

Overall assessment

All in all, no risks that could endanger the continued existence of the group are currently observable.

OUTLOOK //

MAHLE expects the markets to develop positively overall in 2015. On this basis, MAHLE is assuming a mid- to high-single-digit percentage increase in group sales.

Overall economic development

According to the International Monetary Fund (IMF), the global economy is caught between dealing appropriately with the legacy of the financial crisis and globally declining potential growth rates. While growth impetus is expected to come from the significant decline in the price of oil, regional crises and geopolitical risks, as well as a renewed increase in the volatility of the financial markets, could impact global economic activities. In its January forecast for 2015, the IMF predicts a 3.5 percent expansion of the global economy, assuming a moderate consolidation of public budgets and an expansive monetary policy. The importance of the developing and emerging markets as growth drivers will tail off in favor of the industrial nations.

Overall, growth is expected to accelerate moderately in Europe in 2015, with varying rates of recovery in the individual countries. The outlook for the United States remains highly positive, with a growth forecast of 3.6 percent. In contrast, faltering economic development is expected in South America in view of the reluctance to invest and weak exports. The transition to the government-proclaimed "new normal" is slowing growth prospects in China. According to IMF estimates, growth should amount to 6.8 percent in 2015. Analysts are counting on a comeback in private investment in Japan, which should stabilize economic development. This is even more applicable to India, where the growth rate is expected to rise.

Development of the vehicle markets

In 2015, the market research institute IHS anticipates a global increase of 2.4 percent in the production of passenger cars and light commercial vehicles, resulting in a total figure of 89.5 million units. Meanwhile, a slight market decline has been forecast for the European market. In North America, the growth trend is expected to continue, albeit at a reduced rate. The South American market is likely to stabilize following the significant drop in production in 2014. The Asia/Pacific region is expected to show a mid-single-digit increase in the volume produced in 2015. Growth rates in China are projected to be at a slightly lower level than in 2014. For Japan, how-

ever, the production volume in the first half of the year, in particular, is set to fall well below the same period of the previous year, which was marked by the temporary boom relating to the VAT increase. In the Indian market, a mid-single-digit percentage increase in production is possible.

Analysts expect a slight rise in the global production figures for medium-sized and heavy-duty commercial vehicles in 2015. Following the successful introduction of the Euro VI emission standard, the forecast for the European commercial vehicle market remains heavily affected by the industrial economic environment and, in total, indicates a slightly more stable climate than in the previous year. MAHLE expects strong growth to continue in the North American market, but not to the extent of the previous year. In contrast, restrained development has been forecast again for the Asia/Pacific region. This is essentially dominated by the Chinese market: along with the nationwide introduction of the China IV emission class in January 2015, a slowdown in economic growth is expected to bring about a decline in production, especially in the first half of the year.

Regarding off-highway applications, MAHLE anticipates a renewed downturn in the markets for agricultural and construction machinery in 2015. The main reason for this is the introduction of the new emission levels in Europe and North America and the difficult economic situation in South America. The Asia/Pacific region, in contrast, is experiencing positive development, although this is only able to offset the global decline to a limited extent.

Development of the MAHLE Group

In 2015, the MAHLE Group is anticipating a mid- to high-single-digit percentage rise in sales. This is subject to exchange rate movements and is based on cautiously optimistic expectations for the global automotive markets. With respect to income before taxes, a moderate increase is also expected.

In the near future, MAHLE is striving to strengthen and expand its market position among the world's 20 largest automotive suppliers. The aim is to maintain or secure a position among the top three global suppliers in all of the group's core product segments. In this connection, MAHLE concluded a contract with U.S. automotive supplier Delphi Automotive PLC in February 2015 to take over their thermal management operating line. The company boasts a sales volume of around USD 1.2 billion and has approximately 7,600 employees at 13 locations worldwide. This acquisition supports the consistent expansion of the important thermal management growth sector, which will play an increasingly substantial role in all potential alternative drive systems in the future. After approval by the relevant antitrust authorities, a closing of the deal is anticipated for the summer of 2015. In a subsequent step, the intent is to acquire the joint venture of Delphi Thermal in China.

Progress will also continue on the targeted expansion of the product portfolio. With the acquisition of the Slovenian Letrika Group in 2014, MAHLE took an important step toward strategically expanding its mechatronics and electrics activities. Through the expansion of development and production activities, MAHLE is planning to generate sales of around EUR 500 million in this area in the medium term.

At the beginning of 2015, the Industry business unit was organizationally dissolved. Its three subsegments are now being managed as independent profit centers, allowing them to focus their efforts more specifically on automotive-related product areas and resulting in increased vertical synergy effects with the automotive business units.

The MAHLE Group is pursuing a consistent internationalization strategy in order to safeguard its competitiveness in the long term. The goal is to achieve a balanced regional sales distribution between the core markets of Europe, North and South America, and Asia/Pacific. As part of the envisaged further expansion of the production footprint, a total of three new plants for the Filtration and Engine Peripherals as well as Thermal Management business units in Mexico and China will be commissioned in the first half of 2015.

A healthy balance sheet structure is 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.

With the exception of the acquisition of Delphi Thermal, no events occurred after the conclusion of the 2014 business year that would impact the group's annual financial statements.

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.

WORLDWIDE AUTOMOBILE PRODUCTION //

Numbers in 1,000s

Business year	2015	2015	2014	2014
	Passenger cars & light comm. vehicles	Commercial vehicles (incl. buses)	Passenger cars & light comm. vehicles	Commercial vehicles (incl. buses)
America	21,279	789	20,848	737
North America	17,442	579	17,025	542
South America	3,837	210	3,823	195
Asia/Pacific	46,071	2,022	44,448	1,999
Japan	8,810	334	9,236	328
China	24,478	1,120	22,981	1,167
Europe	20,065	565	20,143	553
Germany	5,828	133	5,820	130
Other countries	2,063	3	1,933	3
Total	89,478	3,379	87,372	3,292

Source: IHS Automotive, figures for passenger cars and light commercial vehicles (last updated: March 2015); figures for commercial vehicles (last updated: February 2015)





03 //

CONSOLIDATED FINANCIAL STATEMENTS

74	CONSOLIDATED BALANCE SHEET
76	CONSOLIDATED INCOME STATEMENT
77	CONSOLIDATED CASH FLOW STATEMENT
78	NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
87	AUDITOR'S REPORT

CONSOLIDATED BALANCE SHEET //

as at December 31, 2014

Assets

in EUR '000

		Dec. 31, 2014	Dec. 31, 2013
A. Fixed assets			
I. Intangible assets			
1. Purchased concessions, industrial and similar rights and assets, and licences in such rights and assets	392,283		480,540
2. Goodwill	111,937		113,706
3. Prepayments	779		5,342
	504,999		599,588
II. Property, plant, and equipment			
1. Land, leasehold rights, and buildings including buildings on third-party land	855,311		782,795
2. Technical equipment and machinery	1,120,325		1,014,732
3. Other equipment, fixtures, and furniture	116,314		106,301
4. Prepayments and assets under construction	354,224		263,422
	2,446,174		2,167,250
III. Financial assets			
1. Shares in affiliated companies	7,217		10,315
2. Shares in associated companies	137,101		118,232
3. Equity investments	5,714		3,885
4. Loans to companies in which participations are held	1,651		0
5. Long-term securities	5,775		28,414
6. Other loans	13,011		8,451
	170,469		169,297
		3,121,642	2,936,135
B. Current assets			
I. Inventories			
1. Raw materials, consumables, and supplies	380,009		334,187
2. Work in process	196,598		179,475
3. Finished goods and merchandise	548,469		452,680
4. Prepayments	19,342		23,070
5. Prepayments received	-46,991		-43,585
	1,097,427		945,827
II. Receivables and other assets			
1. Trade receivables	1,494,820		1,346,772
2. Receivables from affiliated companies	8,170		5,083
3. Receivables from companies in which investments are held	18,105		8,771
4. Other assets	264,331		253,230
	1,785,426		1,613,856
III. Securities	594		2
IV. Cash in hand, bank balances, and cheques	526,357		465,501
		3,409,804	3,025,186
C. Prepaid expenses		17,298	14,477
D. Deferred tax assets		170,537	134,415
E. Excess of plan assets over post-employment benefit liability		39,087	15,608
		6,758,368	6,125,821

Equity and liabilities

in EUR '000

		Dec. 31, 2014	Dec. 31, 2013
A. Equity			
I. Subscribed capital	150,000		150,000
II. Capital reserves	166,430		166,430
III. Revenue reserves	1,741,723		1,537,348
IV. Equity impact from currency translation	-92,943		-171,994
V. Unappropriated retained earnings	8,570		7,162
VI. Minority interests	581,014		518,544
		2,554,794	2,207,490
B. Accruals			
1. Accruals for pensions and similar obligations	503,179		466,323
2. Accruals for taxes	56,729		52,692
3. Other accruals	1,111,505		1,072,996
		1,671,413	1,592,011
C. Liabilities			
1. Bonds	329,000		0
2. Liabilities to banks	898,201		1,046,765
3. Payments received on account of orders	4,457		11,492
4. Trade payables	888,030		797,861
5. Liabilities on bills accepted and drawn	31,830		3,269
6. Liabilities to affiliated companies	9,729		4,537
7. Liabilities to companies in which investments are held	9,592		3,859
8. Liabilities on hybrid bond	0		103,609
9. Other liabilities	258,667		221,787
thereof from taxes	79,299 (prev. yr. 62,087)		
thereof relating to social security and similar obligations	30,382 (prev. yr. 29,602)		
		2,429,506	2,193,179
D. Deferred income			
		102,655	133,141
		6,758,368	6,125,821

CONSOLIDATED INCOME STATEMENT //

from January 1 to December 31, 2014

in EUR '000	2014	2013
1. Sales	9,942,388	6,941,294
2. Cost of sales	-8,036,711	-5,530,660
3. Gross profit on sales	1,905,677	1,410,634
4. Selling expenses	-513,914	-395,493
5. General administrative expenses	-427,140	-302,451
6. Research and development expenses	-552,316	-336,229
7. Other operating income	308,632	248,335
thereof from currency translation	92,957 (prev. yr. 83,531)	
8. Other operating expenses	-206,407	-202,012
thereof from currency translation	-95,591 (prev. yr. -82,853)	
	-1,391,145	-987,850
	514,532	422,784
9. Investment income	23	245
10. Income from other securities and long-term loans	744	1,322
11. Result from associated companies	-23,539	-12,520
12. Other interest and similar income	36,788	11,371
thereof from affiliated companies	177 (prev. yr. 262)	
thereof income from discounting	1,065 (prev. yr. 886)	
13. Impairment of financial assets and of securities	-6,930	-3,821
14. Expenses from the transfer of losses	-5,256	-3,598
15. Interest and similar expenses	-115,361	-109,247
thereof to affiliated companies	-13 (prev. yr. -72)	
thereof expenses from discounting	-46,374 (prev. yr. -35,362)	
	-113,531	-116,248
16. Result from ordinary activities	401,001	306,536
17. Taxes on income	-92,555	-52,161
thereof income from deferred income taxes	30,825 (prev. yr. 51,485)	
18. Other taxes	-29,287	-18,806
19. Net income	279,159	235,569
thereof profit applicable to minority shareholders	-103,191 (prev. yr. -57,154)	
thereof loss applicable to minority shareholders	37,515 (prev. yr. 23,801)	

CONSOLIDATED CASH FLOW STATEMENT //

from January 1 to December 31, 2014

in EUR '000	2014	2013
Cash funds at the beginning of the period	465,501	335,791
Cash flow from operating activities	713,224	487,453
Net result (including minority's share of result)	279,159	235,569
Write-downs/write-ups on noncurrent assets	514,385	351,231
Increase/decrease in accruals	31,905	49,127
Other noncash income and expenses	34,895	18,054
Profit/loss on disposals of property, plant, and equipment and from the sale of shares in group member companies	-4,819	5,720
Increase/decrease of inventories, trade receivables, and other assets not related to investing or financing activities	-159,249	-132,996
Increase/decrease of trade payables and other liabilities not related to investing or financing activities	16,948	-39,252
Cash flow from investing activities	-604,835	-599,226
Proceeds from disposals of property, plant, and equipment	16,862	4,777
Purchase of property, plant, and equipment	-488,072	-397,386
Proceeds from disposals of intangible assets	-98	157
Purchase of intangible assets	-10,471	-11,036
Proceeds on disposals of noncurrent financial assets	4,853	6,505
Acquisition of noncurrent financial assets	-49,032	-78,788
Receipts from disposal of shares in subsidiaries and business units	0	3,223
Acquisition of shares in subsidiaries and business units	-101,252	-126,786
Payments/receipts in connection with the short-term financial management of cash investments	22,375	108
Cash flow from financing activities	-12,950	67,988
Cash receipts from issue of capital	10,988	1,650
Cash payments to owners and minority shareholders (dividends)	-42,065	-25,045
Cash proceeds from issuing bonds/loans and short- or long-term borrowings	910,396	497,831
Cash repayments of bonds/loans or short- or long-term borrowings	-892,269	-406,448
Total cash flow	95,439	-43,785
Change in cash funds from exchange rate movements and valuation procedures	-34,583	-41,464
Change in cash funds from changes in the consolidation group	0	214,959
Cash funds at the end of the period	526,357	465,501

CONSOLIDATION GROUP //

The consolidated financial statements include MAHLE GmbH, Stuttgart/Germany (parent company), 26 domestic and 128 foreign subsidiaries. Furthermore, 41 companies are proportionately consolidated and ten companies were valued according to the equity method. The consolidated companies are included in the list of shareholdings.

In the 2014 business year, the following companies were consolidated for the first time:

- Letrika Group, as at September 1

With the first consolidation of the Letrika Group as at September 1, 2014, 13 companies were fully consolidated. For a detailed overview, please refer to the list of shareholdings.

Three companies were merged with other group companies in the year under report.

In the year under report, 15 companies were not included in the consolidated financial statements on account of their immateriality.

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

Key changes to the consolidation group

In the year under report, the Letrika Group was acquired. The assets, liabilities, and deferred income transferred in the course of the acquisition are included in the MAHLE Group balance sheet with the following amounts at the acquisition date:

Fixed assets	EUR 92,278k	Current assets	EUR 101,433k	Prepaid expenses	EUR 1,242k
Accruals	EUR 14,203k	Liabilities	EUR 97,552k	Deferred income	EUR 4k
Deferred tax liabilities	EUR 2,247k				

Sales increased acquisition-related by EUR 75 million. The other items in the income statement increased correspondingly. The Letrika Group reported a net loss, mainly caused by subsequent accounting of the purchase price allocation.

The composition of the companies included in the consolidated financial statements in the year 2013 changed substantially as a result of the first consolidation of the MAHLE Behr Group. Until September 30, 2013, the shares in MAHLE Behr GmbH & Co. KG were valued according to the equity method (36.85%). As of October 1, 2013, MAHLE Beteiligungen GmbH acquired the majority of the shares in MAHLE Behr GmbH & Co. KG (50.71%) and thus achieved a controlling influence.

The information below is provided to make the consolidated financial statements of the current year comparable with the previous year's statements.

Consolidated income statement	2014 MAHLE Group	2013 MAHLE Group including 12 months MAHLE Behr Group	2013 MAHLE Group including 3 months MAHLE Behr Group
in EUR '000			
Sales	9,942,388	9,708,643	6,941,294
Cost of sales	-8,036,711	-7,916,315	-5,530,660
Selling expenses	-513,914	-502,473	-395,493
General administrative expenses	-427,140	-415,389	-302,451
Research and development expenses	-552,316	-489,322	-336,229
Other operating income and expenses	102,225	97,215	46,323
Financial result	-113,531	-151,240	-116,248
Result from ordinary activities	401,001	331,119	306,536
Taxes on income	-92,555	-68,899	-52,161
Other taxes	-29,287	-27,695	-18,806
Net income	279,159	234,525	235,569

Consolidated cash flow statement	2014 MAHLE Group	2013 MAHLE Group including 12 months MAHLE Behr Group	2013 MAHLE Group including 3 months MAHLE Behr Group
in EUR '000			
Cash funds at the beginning of the period	465,501	335,791	335,791
Cash flow from operating activities	713,224	597,390	487,453
Cash flow from investing activities	-604,835	-681,047	-599,226
Cash flow from financing activities	-12,950	106,959	67,988
Total cash flow	95,439	23,302	-43,785
Change in cash funds from exchange rate movements and valuation procedures	-34,583	-39,078	-41,464
Change in cash funds from changes in the consolidation group	0	145,486	214,959
Cash funds at the end of the period	526,357	465,501	465,501

EXEMPTION PROVISIONS FOR DOMESTIC COMPANIES //

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

MAHLE Aftermarket GmbH, Stuttgart; 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 Industriebetrieb-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. Impairments in the business year totaled EUR 965k.

The capital consolidation of the recently acquired shares in the Letrika Group led to a goodwill of EUR 27,304k.

Associated companies were valued at equity using the book value method. The amount stated is determined by the time of first inclusion in the consolidated financial statements. As at December 31, 2014, the differences were rolled forward to EUR 7,657k.

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 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 calculation is based on the following discount rates: domestic 4.20–4.66 percent according to the German Regulation on the Discounting of Provisions ("Rückstellungsabzinsungsverordnung") of November 18, 2009; foreign 1.10–5.89 percent. The option to assume a standardized remaining term of 15 years was not utilized. Expected salary increases of 1.31–5.95 percent and anticipated labor turnover rates of 2.43–4.70 percent were taken into consideration. The mortality tables recognized in each country were taken as the basis for the calculation.

If the conditions respecting posted values remain unchanged, the option to maintain previous value adjustments pursuant to Art. 67, Para. 1, Sentence 2 of the Introductory Act on the German Commercial Code (EGHGB) is utilized.

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 10.00–38.53 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, 2014	Thereof with a remaining term of more than one year
Accounts receivables		
Trade receivables	1,494,820	34
Receivables from affiliated companies	8,170	0
Receivables from companies in which investments are held	18,105	0
Other assets	264,331	14,721
Total	1,785,426	14,755

In the previous year, trade receivables (EUR 84k), as well as other assets (EUR 17,666k), had a remaining term of more than one year.

Other assets contain receivables from shareholders amounting to EUR 9k (previous year: EUR 4k). Prepaid expenses include, among others, the differences between net loan proceeds and liabilities to banks (debt discounts) amounting to EUR 755k (previous year: EUR 41k).

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 62k.

Accruals for pensions and similar obligations as well as other accruals

Notes for offsetting pursuant to Sec. 246, Para. 2, Sentence 2 of the HGB

in EUR '000	
Settlement amount of offset liabilities	395,700
Acquisition costs of assets	192,342
Fair value of assets	287,241
Offset income	38,303
Offset expenses	47,051

Since the year 2014, there is no surplus anymore, by exercising the option to retain existing provisions to Art. 67, Para. 1, Sentence 2 of the EGHGB.

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	Carrying amount Dec. 31, 2014	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
in EUR '000				
Bonds	329,000	0	29,000	300,000
Liabilities to banks	898,201	254,370	340,723	303,108
Payments received on account of orders	4,457	4,450	7	0
Trade payables	888,030	887,610	420	0
Liabilities on bills accepted and drawn	31,830	31,830	0	0
Liabilities				
to affiliated companies	9,729	9,729	0	0
to companies in which investments are held	9,592	9,592	0	0
Other liabilities	258,667	205,399	43,243	10,025
Total	2,429,506	1,402,980	413,393	613,133

In the previous year, liabilities to banks (EUR 206,697k), payments received on account of orders (EUR 10,950k), trade payables (EUR 797,104k), liabilities on bills accepted and drawn (EUR 3,269k), liabilities to affiliated companies (EUR 4,537k), liabilities to companies in which investments are held (EUR 3,859k), liabilities on hybrid bond (EUR 3,609k), and other liabilities (EUR 163,786k) had a remaining term of less than one year.

Other liabilities do not contain any payables to shareholders (previous year: EUR 111k).

Of the liabilities to banks, EUR 28,596k is secured by property liens and EUR 6,078k by similar rights.

Deferred taxes

Deferred tax assets arise predominantly from temporary differences in intangible assets, property, plant, and equipment, and accruals. The temporary differences in intangible assets mainly include goodwill capitalized in the tax balance sheet and amortized over five years, but not recorded in the consolidated balance sheet. Furthermore, deferred tax assets arise from differing accounting treatment in intangible assets and tangible fixed assets. 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 hidden reserves disclosed as part of the purchase price allocation of the acquisition of MAHLE Behr and the Letrika Group lead to deferred tax liabilities in intangible assets and in tangible fixed assets.

Deferred tax assets of EUR 109,598k were set up on tax loss carried forward of EUR 510,107k that is recoverable within five years. Deferred tax assets were written off by EUR 93,035k as at December 31, 2014, 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 building and land leasing agreements (EUR 115,352k) and factoring (EUR 152,744k). 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 will mostly be postponed into the future. No material risks are anticipated from these transactions.

Contingent liabilities

in EUR '000	
Contingents from notes	25,100
Guarantees	2,354
Warranties	1,297

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	
Purchase commitments for investments	143,657
Financial obligations from rent and lease agreements	49,654
Others	24,784

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 allocation of the acquisition of MAHLE Behr and the Letrika Group. 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 allocation of the acquisition of MAHLE Behr and the Letrika Group. 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 92,425k income relating to other periods. This income is mainly related to the reversal of accruals. Other operating expenses contain EUR 5,303k expenses relating to other periods. This expense is mainly related to disposals of depreciable fixed assets.

Sales by area of operation

in EUR '000

Engine Systems and Components business unit	2,529,841
Filtration and Engine Peripherals business unit	1,981,395
Thermal Management business unit	2,995,490
Aftermarket business unit	827,267
Industry business unit	432,630
Profit centers and services	1,175,765
Total	9,942,388

Sales by geographical market (target area)

in EUR '000

Europe	4,888,278
North America	2,419,955
South America	598,963
Asia/Pacific	1,947,572
Africa	87,620
Total	9,942,388

Personnel expenses

in EUR '000

Total	2,453,110
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Depreciation, amortization, and impairments of intangible and tangible fixed assets

in EUR '000

Total	507,688
thereof impairments	2,416

Result from associated companies

in EUR '000

Investor's share in associates' net income/net loss of the year	-24,034
Effects of roll-forward of the difference	495
Result from associated companies	-23,539

Subsequent accounting of the purchase price allocation within the acquisition of MAHLE Behr and Letrika Group

in EUR '000

Depreciation and amortization within cost of sales	95,359
Amortization within selling expenses	26,404
Release of subsidies within other operating income	25,506
Release of deferred tax liabilities	29,114

OTHER NOTES //

Average annual number of employees (excluding apprentices)

Direct employees	33,653
Indirect employees	29,888
Total	63,541

The total average annual number of employees includes a pro rata figure of 1,912 employees from proportionately consolidated companies.

Derivatives

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

in EUR '000	Nominal amounts	Fair value *)
Transactions relating to interest	242,528	-4,606
Transactions relating to currency	1,029,943	-28,811
Transactions relating to currency and interest	20,239	-112
Transactions relating to commodities	19,008	-1,052

*) 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, 2014, are placed exclusively with banks. Evaluation units were established for hedging transactions with an effective relationship to the underlying transaction. Accruals of EUR 3,223k 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	Balance sheet item
Currency exposure			
Recorded values	Portfolio hedge	70,541	Trade receivables
	Portfolio hedge	6,987	Bank balances
	Portfolio hedge	-916	Liabilities to banks
	Portfolio hedge	-8,333	Trade payables
Remaining currency exposure from eliminated transactions with affiliated companies	Portfolio hedge	182,719	
Future transactions	Portfolio hedge	168,823	
Currency and interest exposure (cross currency swap)			
Recorded values	Portfolio hedge	-3,046	Liabilities to banks
Remaining currency exposure from eliminated transactions with affiliated companies	Portfolio hedge	9,708	
Interest exposure			
Recorded values	Portfolio hedge	-145,633	Liabilities to banks
Remaining currency exposure from eliminated transactions with affiliated companies	Portfolio hedge	0	
Commodity exposure			
Future transactions	Portfolio hedge	17,565	

in '000	Volume of hedged exposure
Currency exposure in transaction currency	
AUD	-200
CAD	16,736
EUR	-102,412
GBP	-12,710
JPY	19,076,724
MXN	229,653
PHP	116,389
RON	15,596
RUB	-818,500
THB	-436,145
TRY	4,938
USD	-534,692
in '000	
Currency and interest exposure in transaction currency	
CNY	-79,680
Interest	fixed CNY/variable 3-month-Euribor
USD	3,698
Interest	fixed USD/variable THB
in '000	
Interest exposure in transaction currency	
EUR	139,000
Interest	fixed EUR/variable 6-month-Euribor
IDR	100,000,000
Interest	fixed IDR/variable 3-month-IDR Jibor
in EUR '000	
Commodity exposure	
Aluminum	9,230
Copper	3,517
Nickel	4,428
Tin	391

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.

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 fair value 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 (parent company)

in EUR '000

Supervisory Board	245
Management Board	13,355

The total remuneration of the Management Board comprises fixed and variable components. The fixed portions for the 2014 business year came to EUR 2,559k, and the variable compensation for 2014 to EUR 9,937k. 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 1,492k.

An amount of EUR 19,466k is set aside for this group of persons in the pension accruals as at December 31, 2014.

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 HGB, consists of the following:

in EUR '000

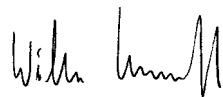
Audit of financial statements	868
Other assurance services	622
Tax advisory services	672
Total	2,162

Stuttgart/Germany, March 16, 2015

The Management Board of MAHLE GmbH



Heinz K. Junker



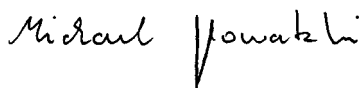
Wilhelm Emperhoff



Arnd Franz



Michael Frick



Michael Glowatzki



Rudolf Paulik



Jörg Stratmann

AUDITOR'S REPORT //

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

The auditor has issued the following opinion on the complete consolidated financial statements and the group management report:

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, 2014. 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, 2015

PricewaterhouseCoopers
Aktiengesellschaft
Wirtschaftsprüfungsgesellschaft

sgd. Dieter Wißfeld
Wirtschaftsprüfer
(German Public Auditor)

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

MEMBERS OF THE SUPERVISORY BOARD //

Dr. rer. pol. Dr. rer. pol. h.c. Klaus P. Bleyer**Chairman**

Former Chairman of the Management Board of ZF Friedrichshafen AG, Friedrichshafen/Germany

Bernd Hofmaier-Schäfer**Deputy Chairman**

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

Rolf Allmendinger

until June 30, 2014

Former Chairman of the Supervisory Board of WMF Aktiengesellschaft, Geislingen/Germany

Dietmar Bichler

Chairman of the Management Board of Bertrandt AG, Ehningen/Germany

Martin Bücher

Executive Secretary of the Central Works Council of MAHLE

Prof. Dr. jur. Wolfgang Fritzemeyer

LL.M., Attorney-at-Law

Baker & McKenzie, Munich/Germany

Josef Häring

Chairman of the Works Council of MAHLE GmbH, plant Rottweil/Germany

Karin Himmelreich

Managing Director MP Transaction, Frankfurt/Germany

Jürgen Kalmbach

Chairman of the Works Council of MAHLE GmbH, plant Stuttgart/Germany

Dieter Kiesling

effective June 2, 2014

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

Patryk Krause

Trade Union Secretary of IG Metall, administrative office Stuttgart/Germany

Thomas R. Letsch

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

Uwe Meinhardt

Executive Director of IG Metall, administrative office Stuttgart/Germany

Dr. Uwe Mohr

Vice President Corporate Research and Advanced Engineering of MAHLE Group

Dr. Franz-Josef Paefgen

Former CEO of Bentley Motors Ltd. and President of Bugatti International S.A.

Prof. Dr.-Ing. Stefan Pischinger

Head of Institute, Institute for Combustion Engines, University RWTH Aachen/Germany

Prof. Dr.-Ing. Dr.-Ing. e. h. Hans-Joachim Schöpf

Former Executive Vice President R&D of Mercedes Car Group of Daimler AG

Manfred Steidle

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

Annette Szegfü

Spokesperson of Management IG Metall, Frankfurt/Germany

Dr. Bernhard Volkmann

effective July 1, 2014

Former Member of the Management Board of MAHLE Group

Georg Weiberg

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

Thomas Wörner

until May 9, 2014

Chairman of the Central Works Council of MAHLE Behr

REPORT OF THE SUPERVISORY BOARD //

In the 2014 business year, the Supervisory Board met the responsibilities incumbent on it in accordance with the law, Articles of Association, and Rules of Procedure. It monitored and advised on the activities of the Management Board, as detailed below. The Supervisory Board was involved in all decisions of fundamental importance.

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 on the status and development of the market and the business of the company and the MAHLE Group, as well as its business units. The Supervisory Board held three ordinary meetings.

Group sales were increased significantly in comparison with the previous year; however, this sales growth primarily relates to the first full consolidation for the whole year of the MAHLE Behr Group and the first consolidation of Letrika on September 1, 2014. The overall pleasing development of revenue was essentially only impaired by the weak markets in Brazil and eastern Europe. The actions planned and implemented by the Management Board ensured that the targeted return on sales was achieved.

The integration of the MAHLE Behr Group into the MAHLE Group as the new Thermal Management business unit was completed as planned. MAHLE's strong presence in the sustainable growth region of Asia was further enhanced by the extension of the research and development center in Shanghai/China and the opening of additional new plants in China and Indonesia.

Supervisory Board discussions also focused on the restructuring of the Industry business unit as well as the group's long-term development in the area of mechatronics. A welcome complement to the mechatronic activities was found with the acquisition of the majority shares in Letrika and the subsequent squeeze-out. The integration of Letrika as the new Electric Drives and Applications profit center is expected to take place in

2015. The restructuring of the financing for corporate growth also came under discussion, resulting in MAHLE placing a bond on the capital market in Luxembourg for the first time in May 2014.

The Supervisory Board would like to express its thanks to member Rolf Allmendinger, who stepped down on June 30, 2014, for his many years of constructive cooperation. Dr. Bernhard Volkmann was appointed member of the Supervisory Board by the shareholders for the remaining term of office. The Supervisory Board would also like to thank member Thomas Wörner, who retired in May 2014, for his close cooperation. The Stuttgart district court ("Amtsgericht Stuttgart") appointed Dieter Kiesling as his successor. The Supervisory Board thanks the new members for their willingness to be involved in this committee and take on responsibility.

As head of the Thermal Management business unit, Dr. Jörg Stratmann was appointed a member of the Management Board of MAHLE GmbH by the Supervisory Board with effect from January 1, 2014.

Michael Frick was appointed a new member of the Management Board for Finance/CFO and successor to Dr. Bernhard Volkmann by the Supervisory Board with effect from July 1, 2014. The Supervisory Board would like to thank Dr. Bernhard Volkmann for his many years of extremely successful service to the group.

Olaf Henning was appointed head of the Aftermarket business unit and a member of the Management Committee, also with effect from July 1, 2014.

In its meeting on December 2, 2014, the Supervisory Board appointed Wolf-Henning Scheider as a member of the Management Board of MAHLE GmbH. He will join the MAHLE Group on April 1, 2015, and will initially assume the role of Vice Chairman of the Management Board. He will become Chairman of the Management Board with effect from July 1, 2015.

Prof. Dr.-Ing. Heinz K. Junker will transfer to the Supervisory Board of MAHLE GmbH and the shareholders' committee with voting rights on July 1, 2015.

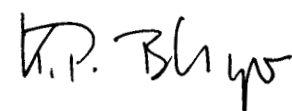
The appointed auditors PricewaterhouseCoopers AG audited the annual financial statements and management reports of the MAHLE Group and of MAHLE GmbH for the 2014 business year, rendering an unqualified audit opinion. The Supervisory Board agreed with the results of the audit following in-depth analysis 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.

The Supervisory Board would like to thank the members of the Management Board and all employees across the globe for their successful commitment in 2014.

Stuttgart/Germany, April 28, 2015

For the Supervisory Board



Dr. Klaus P. Bleyer
Chairman



MANAGEMENT BOARD //

Prof. Dr.-Ing. Heinz K. Junker

Chairman and CEO

Research and Advanced Engineering,
Corporate Planning, Corporate Communications,
Profit Center Engineering Services,
Motorsports, and Special Applications

Wilhelm Emperhoff

Corporate Executive Vice President and General Manager
Business Unit Filtration and Engine Peripherals,
Profit Centers Industrial Filtration, Actuators and Heaters,
Electric Drives and Applications

Arnd Franz

Corporate Executive Vice President and General Manager
Automotive Sales and Application Engineering,
Business Unit Aftermarket

Michael Frick

effective July 1, 2014

Corporate Executive Vice President and Chief Financial Officer
IT Services, Insurances, Internal Audit

Michael Glowatzki

Corporate Executive Vice President
Human Resources, Legal

Dr. Rudolf Paulik

Corporate Executive Vice President and General Manager
Business Unit Engine Systems and Components,
Corporate Quality Management,
Profit Centers Large Engine Components,
Small Engine Components

Dr. Jörg Stratmann

Corporate Executive Vice President and General Manager
Business Unit Thermal Management,
Profit Centers Industrial Thermal Management,
Control Units, Front-end Modules

Dr. rer. pol. Bernhard Volkmann

until June 30, 2014

Corporate Executive Vice President and Chief Financial Officer
IT Services, Insurances, Internal Audit



MAHLE



FINANCIAL CALENDAR 2015 //

April 30, 2015
Annual Press Conference

September 7, 2015
Half-year Press Conference

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MAHLE GmbH
Pragstrasse 26–46
70376 Stuttgart/Germany
Phone +49 711 501-0
Fax +49 711 501-12007
info@mahle.com
www.mahle.com

Contact

MAHLE International GmbH
Corporate Communications/
Public Relations
Pragstrasse 26–46
70376 Stuttgart/Germany
Phone +49 711 501-12506
Fax +49 711 501-13700

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information about the company on the Internet at:
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