



Group management report

of the Bosch Group

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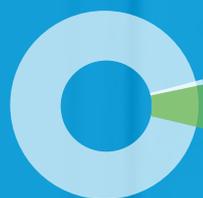
All in all, we can look back on a successful financial year in which sales leaped by nearly 22 billion euros to reach a record of more than 70 billion euros. One major strategic decision was the acquisition of all shares in former joint ventures concerned with household appliances and automotive steering systems. In our operations as well, we made further progress, despite a weak economic environment. Innovative and energy-efficient products were an important source of growth. In addition, we made a number of other strategic decisions. They include the acquisition of cutting-edge battery technology for electric vehicles and the creation of new operating units geared even more strongly to customer needs. We are working hard to become a leading provider of services relating to the internet of things. To enable us to concentrate more heavily on key areas important to Bosch's future, we disposed of some units. In the 2016 business year, we intend to continue our strategy of focusing on energy efficiency, electrification, automation, emerging markets, and connectivity, and expect further growth despite only moderate expansion of the global economy.

G.01

Shareholders of Robert Bosch GmbH

Percentage figures

Shareholding



Robert Bosch GmbH
1
Bosch family
7
Robert Bosch
Stiftung GmbH
92

Voting rights



Bosch family
7
Robert Bosch
Industrietreuhand KG
93



G.02

Bosch Group business sectors



MOBILITY SOLUTIONS
Gasoline Systems
Diesel Systems
Chassis Systems Control
Electrical Drives
Starter Motors and Generators
Car Multimedia
Automotive Electronics
Automotive Aftermarket
Automotive Steering¹

INDUSTRIAL TECHNOLOGY

Drive and Control Technology²
Packaging Technology



CONSUMER GOODS

Power Tools
BSH Hausgeräte GmbH³

ENERGY AND BUILDING TECHNOLOGY

Security Systems
Thermotechnology
Bosch Global Service Solutions⁴



¹ Formerly ZF Lenksysteme GmbH or Steering Systems division; included in the 2014 financial statements at equity; all shares acquired on January 30, 2015
² Bosch Rexroth AG (100% Bosch-owned)
³ Formerly BSH Bosch und Siemens Hausgeräte GmbH; included in the 2014 financial statements at equity; all shares acquired on January 5, 2015
⁴ From January 1, 2016

Fundamental information about the group

The group

The Bosch Group has a global presence and generates 47 percent of its sales outside Europe. It encompasses around 440 subsidiaries and regional companies in approximately 60 countries. Including its trading and service partners, the group is represented in some 150 countries. The parent company is Robert Bosch GmbH, which is headquartered in Stuttgart. It started out as “Workshop for Precision Mechanics and Electrical Engineering,” founded in Stuttgart in 1886 by Robert Bosch (1861–1942). In 1917, the company temporarily changed its legal form into that of a stock corporation (Aktiengesellschaft); in 1937, it reorganized as a close corporation, Robert Bosch GmbH. Robert Bosch Stiftung GmbH has been the majority shareholder since 1964, and currently holds about 92 percent of the shares.

As a not-for-profit foundation, Robert Bosch Stiftung GmbH has no influence on the strategic or business development of the Bosch Group. The voting rights accruing to its share are held by Robert Bosch Industrietreuhand KG, an industrial trust. The entrepreneurial ownership functions are carried out by the trust. Most of the remaining shares and voting rights are held by the founder’s descendants. This ownership structure guarantees the Bosch Group’s entrepreneurial independence, allowing the company to plan for the long term and make significant upfront investments in its future.

Organization and competitive environment

With around 374,800 associates, the Bosch Group covers a wide range of activities in different sectors. It is currently divided into four business sectors: Mobility Solutions, Industrial Technology, Consumer Goods, and Energy and Building Technology. Reporting is segmented in the same way. At the beginning of 2016, a new Bosch Global Service Solutions division was created within the Energy and Building Technology business sector. The four business sectors are all leaders in their fields. The diversified structure of the Bosch Group means that it faces a variety of market and competitive environments.

In the case of Mobility Solutions, the Bosch Group competes with only a small number of large providers. Its customers are automakers and, increasingly, suppliers of mobility solutions. In the case of Industrial Technology, the Drive and Control Technology and Packaging Technology divisions operate as component or systems suppliers in fairly fragmented markets with many competitors and customers. In the Consumer Goods business sector, the divisions and their products

are generally geared directly to end consumers. These units face intense competition from both global and regional providers. In Energy and Building Technology, the competition consists of a small number of international providers and many regional providers. We expect growing competition from emerging markets and, in view of the increasing connectivity of products, new competitors from the IT, software, and other industries in all four business sectors.

Corporate governance

The board of management jointly defines the strategy for the entire company and leads the company as a whole. Its responsibilities are set out in the table of duties. The Robert Bosch GmbH supervisory board appoints, monitors, and advises the board of management. In making appointments, Robert Bosch GmbH is subject to the German Codetermination Act (Mitbestimmungsgesetz). In view of the company’s size, the supervisory board has 20 members. Ten members are appointed by the shareholders with voting rights. The other ten members are appointed by the workforce. Robert Bosch Industrietreuhand KG acts as managing partner. In line with the mission handed down in the company founder’s will, the trust is responsible for ensuring the company’s long-term success and, above all, its financial independence. This is intended to guarantee the company’s independence and ability to act at all times.

Based on German legal requirements, the supervisory board of Robert Bosch GmbH has set targets for the percentage of women members of the supervisory board and board of management as of January 1, 2017. These targets orient to the current 20 percent of women on the supervisory board, and do not foresee any women members of the board of management before 2017, as there are no plans to change its membership for the present. The target for the supervisory board applies to both the employer and workforce sides.

The company’s declared objective is to rigorously continue these efforts and to create a talent pool of women executives for the highest management levels. On the level below the board of management, it is planned to increase their number from 2.9 percent (at the time the resolution was adopted in June 2015) to 5 percent by the start of 2017. At the second management level, the figure is to increase from 6.8 percent to 8 percent. As of January 1, 2016, these figures had already risen to 4.2 percent and 8.3 percent respectively. We also plan to increase the proportion of women executives across all management levels in the worldwide group to 20 percent by 2020. The figure has risen further to a current level of 13.6 percent, following a rise to 12.9 percent in the previous year.



Business sectors

Mobility Solutions business sector

As one of the world's largest automotive suppliers, Bosch is active in many subsegments. The business sector comprises the following divisions:

Gasoline Systems

The Gasoline Systems division develops and manufactures innovative technologies for internal-combustion engines powered by gasoline, natural gas, and ethanol, as well as systems and components for hybrid and electric vehicles and motorcycles. These include engine management systems, fuel supply systems, fuel injection systems, ignition systems, connectors, electric drive units, power electronics, battery systems, and transmission technology. Of growing importance is the division's expertise as a systems provider, both in the management of internal-combustion engines and of electric motors, and in combination with hybrids and plug-in hybrids.

Diesel Systems

The Diesel Systems division is a systems supplier of key powertrain components. The division offers an extensive range of energy-efficient, eco-friendly diesel injection systems for applications ranging from passenger cars and all kinds of commercial vehicles to large-scale industrial power-generation units. It focuses primarily on the common-rail system, which comprises a high-pressure pump injecting at pressures of up to 2,700 bar, the rail, and various injectors (solenoid and piezo). The division also provides air management systems such as mass air-flow sensors, electronic diesel control, and exhaust-gas management systems such as Denoxtronic, as well as



solutions for diesel hybrid vehicles. Particularly in the areas of engine management, sensor systems, and powertrain electrification, Gasoline Systems and Diesel Systems work closely together.

The Diesel Systems division also includes the fifty-fifty joint venture Bosch Mahle Turbo Systems GmbH & Co. KG, Stuttgart. It is included in the consolidated financial statements according to the equity method, i.e. its pro rata share of equity is reported in the statement of financial position and its after-tax income is reported in the operating result. The joint venture develops and manufactures exhaust-gas turbochargers for gasoline and diesel engines for use in passenger cars, commercial vehicles, and large-scale industrial power-generation units.

Chassis Systems Control

The Chassis Systems Control division develops and manufactures innovative components, functions, and systems aimed at further improving driving safety and comfort. These comprise brake-actuation products such as master cylinders and brake boosters, including braking assistance systems. ABS, TCS, and ESP® electronic braking control systems are an important area of activity. The division also supplies sensors such as speed, steering-angle, and yaw-rate sensors, as well as electronic devices to protect passengers and pedestrians, such as airbag control units and crash sensors. A fast-growing area is that of driver-assistance systems based on ultrasonic, radar, and video sensors, also as the basis for automated driving. The division's portfolio also includes products such as radar-based speed control (ACC adaptive cruise control), predictive emergency braking systems, and lane-keeping systems.

Electrical Drives

The Electrical Drives division offers a broad array of products stretching from a wide variety of electromechanical components to entire systems for automotive body applications. These include innovative and energy-efficient actuators, as well as systems and components for engine thermal management, air-conditioning, and windshield cleaning. The product range comprises actuators for electric windows, seat adjustment, and sunroofs, fan modules and engine-cooling drive systems, pumps and valves for cooling systems, front and rear wiper systems, and wiper blades. Electrical Drives also makes motors for electric steering systems, for ABS and ESP® pumps, as well as for e-bikes and e-scooters.

Starter Motors and Generators

The Starter Motors and Generators division develops and manufactures starter motors and alternators for passenger cars and commer-

cial vehicles. The product catalog includes starters for gasoline and diesel engines, including and in particular for use in fuel-saving – and therefore CO₂-reducing – start-stop systems. Its alternators provide the vehicle with a reliable energy supply, and their high efficiency helps reduce fuel consumption. The gap between start-stop systems and hybrid powertrains is bridged by the BRS boost recuperation system. Based on highly efficient generators, it allows braking energy to be recovered while delivering additional power to the internal-combustion engine. In 2015, we announced plans to spin off the division and to look for a suitable buyer or partner.

Car Multimedia

The Car Multimedia division offers intelligent solutions that help make the integration of in-car entertainment, navigation, telematics, and driver-assistance systems better and more flexible, and as easy as possible to operate. Vehicle infotainment architectures are increasingly developing into connected systems, also increasingly utilizing the internet. The product portfolio includes driver information and infotainment systems usable anywhere in the world, freely programmable display systems, and head-up displays. The division also offers communication and entertainment systems for use in commercial vehicles and buses, and even on motorcycles.

Automotive Electronics

Automotive Electronics develops and manufactures microelectronics. The product portfolio ranges from components such as semiconductors, sensors, and MEMS (microelectromechanical systems), through control units for body electronics, braking control systems, and engine management systems (as well as contract manufacturing of the above), to non-automotive applications such as sensors for consumer electronics. Bosch Connected Devices and Solutions GmbH, Reutlingen, Germany, also offers sensors, software, and complete solutions for the internet of things. Automotive Electronics also includes the eBike Systems unit, which is one of Europe's leading suppliers of drive and control units for pedelecs.

Automotive Aftermarket

The Automotive Aftermarket division offers diagnostic and repair-shop technology for the aftermarket and for workshops worldwide, as well as a comprehensive range of spare parts for cars and commercial vehicles – from new parts to reconditioned spares and repair solutions. The product portfolio consists of Bosch original-equipment products, as well as products and services developed and manufactured in-house for the spare parts market. Under the "Automotive Service Solutions" label, it also provides testing and



repair-shop technology, diagnostics software, service training, and technical information and services. The division is also responsible for the Bosch Car Service and AutoCrew repair-shop franchises, two independent repair-shop chains with around 17,700 and over 1,000 locations respectively worldwide. In addition, the division offers new telematics services for fleet operators and leasing and insurance companies. The detailed real-time information this provides helps optimize fleet operating costs. For example, predictive repairs help prevent interruptions to vehicle operation.

Automotive Steering

Following the acquisition of all shares at the end of January 2015, the former joint venture ZF Lenksysteme GmbH, including its subsidiaries, is now fully consolidated and integrated into the Mobility Solutions business sector. Based in Schwäbisch-Gmünd, Germany, the company now operates under the name Robert Bosch Automotive Steering GmbH. In the 2014 consolidated financial statements, the company was still consolidated according to the equity method. It now forms the Automotive Steering division, which manufactures and sells steering technology for passenger cars and commercial vehicles. In addition to complete steering systems, steering columns, and steering pumps for vehicles ranging from small cars to commercial vehicles, the product line also covers components such as valves, universal joints, and steering shafts. The main area of activity is electric steering systems. They are already of great significance for driver assistance systems, and will in the future be essential for electric and automated vehicles.

Other businesses

A cross-divisional Two-Wheeler and Powersports unit was created in mid-2015, which has access to the worldwide resources of the Mobility Solutions business sector. For two-wheelers, Bosch offers safety systems such as ABS and MCS motorcycle stability control, fuel-saving powertrain technology and display instruments. At the beginning of 2016, based on a similar concept, a separate Commercial Vehicles and Offroad Applications organizational unit was launched within the Mobility Solutions business sector, with responsibility for systems development, product management, and sales.

Bosch's ETAS Group companies provide innovative solutions for embedded software systems that are used in the automotive and other industries. ETAS's subsidiary escrypt GmbH Embedded Security, Bochum, Germany, is primarily concerned with data security. For over ten years, this company has offered data security-related software, advice, and training for a wide range of industries.

The Bosch Engineering GmbH subsidiary, headquartered in Abstatt, Germany, offers a wide range of customers tailored solutions based on tried and tested technology used in large-scale production. For example, it provides solutions for sports cars and off-road vehicles, but also for railcars, marine applications, and industrial engines. Bosch's motor racing activities are also based there.

Industrial Technology business sector

This business sector comprises two divisions:

Drive and Control Technology

The Bosch Rexroth AG subsidiary, based in Lohr, Germany, specializes in drive and control technology and is one of the world's leading suppliers in this field. It offers customized drive, control, and actuator solutions for factory automation, plant construction and engineering, mobile machinery, and commercial vehicles. As a systems partner, service provider, and supplier, the division is active in many branches of industry and more than 80 countries. Moreover, it offers a comprehensive range of services and carries out large-scale international projects.

Packaging Technology

This division is one of the world's leading providers of process and packaging solutions for the pharmaceuticals, foodstuffs, and confectionery industries, as well as selected segments of the beverages industry. Its portfolio includes individual modules, customer-specific systems, turnkey solutions, and a comprehensive service portfolio. This division also includes ATMO, Bosch's in-house supplier of assembly systems and special-purpose machinery. ATMO develops flexible, scalable plans for assembly systems and builds customized solutions in the field of testing and calibration technology.



Consumer Goods business sector

The business sector comprises two divisions:

Power Tools

With brands such as Bosch, Dremel, and Skil, Bosch is one of the world's leading suppliers of power tools and accessories. The Power Tools division has an extensive range of products aimed at both the professional and do-it-yourself markets. In addition to power tools such as hammer drills, impact screwdrivers, and jigsaws, the product line also includes gardening equipment such as lawnmowers, hedge trimmers, and high-pressure cleaners. The division focuses on convenient, high-performance cordless equipment, and increasingly on web-enabled equipment and services. It also offers innovative, digital laser measurement tools for both professional and DIY users. The accessories include a comprehensive range of abrasive systems, drill bits, and saw blades.

BSH Hausgeräte GmbH

In early January 2015, we acquired all shares in the former fifty-fifty joint venture BSH Bosch und Siemens Hausgeräte GmbH, based in Munich, Germany. The company is now officially known as BSH Hausgeräte GmbH. This company, too, is included in the Bosch Group's 2014 consolidated financial statements using the equity method. The subgroup (referred to in the following as BSH Hausgeräte) has been fully consolidated since the start of 2015.

The household appliance manufacturer has a product portfolio that ranges from washing machines and tumble dryers through refrigerators and freezers, stoves and ovens, and dishwashers, to small appliances such as vacuum cleaners, coffee makers, irons, and hot-water appliances. The household appliance specialist sells its products under the main Bosch and (under license) Siemens brands, as well as under regional and specialty brands such as Gaggenau, Neff, Thermador, Constructa, Zelmer, Balay, and Pitsos.

Energy and Building Technology business sector

As well as the Security Systems and Thermotechnology divisions, the business sector includes newly established units, particularly in the field of services and the internet of things.



Security Systems

The Security Systems division provides products and solutions relating to security. The product portfolio encompasses video-surveillance, intrusion-detection, and fire-detection systems, as well as access-control, public-address, and evacuation systems, and professional audio and conference systems. Since the start of 2016, the Security Systems division has also included a new International Integrator Business unit. This combines the commercial service business of the building security unit with the subsidiary Bosch Energy and Building Solutions GmbH, Ditzingen, Germany, and Climatic, LLC of Phoenix, AZ (USA), a provider of building automation services which we acquired at the beginning of 2015.

Thermotechnology

In Europe, the Thermotechnology division is a leading manufacturer of energy-efficient heating products and hot-water solutions. The division's products are sold under international and regional brand names such as Bosch, Buderus, Worcester, and Junkers. The product portfolio ranges from floor-standing and wall-mounted heaters, through heat pumps, solar thermal systems, and solid-fuel boilers, to cogeneration plants and industrial boilers.

Bosch Global Service Solutions

A Bosch Global Service Solutions division was created at the beginning of 2016. The division has the task of expanding the business previously located within Security Systems to include external business services. Within Bosch, it will also provide shared-service functions.

Robert Bosch Smart Home GmbH

A new subsidiary, Robert Bosch Smart Home GmbH, was also set up at the beginning of 2016. We have combined our smart-home activities, including the relevant software and sensor technology, under the umbrella of the new company, so that in future we can offer products and services for smart homes from a single source.

Company not allocated to any business sector

Our subsidiary Bosch Software Innovations GmbH, Berlin, Germany, develops solutions for the connected world based on its own software suite (i.e. software platform). It provides applications in the areas of energy, industry, and mobility in particular.

Outlook for the Bosch Group

Fundamental strategic orientation

Our “We are Bosch” mission statement provides a framework for the future strategic orientation of the Bosch Group and its business sectors. The starting point is the mission of securing the company’s future, true to the spirit of its founder Robert Bosch – in other words, ensuring the company’s strong and meaningful development and securing its financial independence. Our goal is to develop products that are “Invented for life,” that fascinate, that improve quality of life, and that help conserve natural resources. In this respect, “products” means not only physical products, but increasingly also software and services. Our strategy is based on the focal points defined in the mission statement: customer focus, change, and excellence. These focal points are derived from factors such as megatrends, changes in the competitive environment, innovations, customer expectations, resource scarcity, and political developments.

In terms of products and business models, we want to find the best solutions for our customers. We therefore offer products tailored to our customers and markets, and exploit the innovation potential of our global development network. The strategic focal point “change” underlines our ambition to play an active part in shaping the far-reaching changes taking place in markets and technology. Excellence in all areas is essential in order to achieve our targets for growth, earnings, and agility on a lasting basis. In this respect, we measure ourselves against our best competitors. With efficient processes, lean

structures, and high productivity, we aim to secure and increase the value of the company. A business environment that is changing at an ever increasing rate also calls for increased agility. To this end, we are constantly reappraising our understanding of leadership, cooperation, organization, and communication, as well as the concepts based on them. Our objective here is to increase our ability to change and the speed at which we do so.

To achieve this, we build on our strengths: the Bosch culture, our high level of innovation and quality, and our broad global presence. We base our strategy and our actions on the Bosch values: a clear future and result focus, responsibility and sustainability, initiative and determination, openness and trust, fairness, reliability and credibility, legality, and diversity.

A wealth of opportunities

A changing market and technology environment opens up a wealth of opportunities for the Bosch Group, particularly in the areas of energy efficiency, electrification, automation, connectivity, and emerging markets. We aim to increase energy efficiency both in our products and in our own value chain. Drivers include the growing demand for energy, ever tighter climate and environmental regulations, and the finite nature of fossil fuels. This will lead to increased demand for energy-efficient products in all business sectors. We generate some 40 percent of our sales with products that contribute to energy efficiency, environmental protection, and resource conservation.

Furthermore, these products currently account for more than half our research and development expenditure. This does not yet include Automotive Steering and BSH Hausgeräte.

Electrification is of particular importance for the Mobility Solutions business sector. By 2025, we expect that around 15 percent of all passenger cars and light trucks built worldwide will have an electric motor – most of them in hybrid vehicles with an internal-combustion engine. In 2015, the

We are Bosch

Our objective, our motivation, our strategic focal points, our strengths, and our values.

Discover what we stand for and what drives us each and every day.



total production of electric and hybrid vehicles still came to less than 2 million units. The key drivers for electrification and electromobility include ever stricter standards for consumption and emissions, falling battery costs, increasing suitability for everyday use (i.e. range), but also driving enjoyment, fascination, and connectivity.

Automation primarily affects the Mobility Solutions and Industrial Technology business sectors. As traffic density continues to grow, automated driving can help reduce the number of accidents and improve road use. In Germany alone, for example, we expect the number of accidents to fall by up to one-third as a result of increasing automation. In Industrial Technology, the increasing flexibility of production combined with more widespread connectivity in manufacturing, including human-machine interfaces, offers a wealth of opportunities. This opens up new ways of increasing product quality and productivity, and of expanding functionality, improving resource conservation, and better protecting workers' health and safety.

Connectivity is a global theme that affects all business sectors – from connected mobility and connected industry, to smart-home technology, to connected solutions for buildings and energy technology. It is being driven by the miniaturization of electronics and the availability of ever more powerful sensors, data networks, and computers. More and more products can be inexpensively connected to the internet. We believe this offers us huge opportunities in view of our expertise in many product areas, software, and sensor technology as one of the world's leading suppliers of MEMS sensors. We have produced just under seven billion of these sensors since we began production in 1995. We develop new products, services, and business models on this basis.

The emerging markets of Asia, South America, and central and eastern Europe are home to most of the world's population. Despite the current slowdown in growth, over the long term they will disclose higher rates of growth than the industrialized nations. There is demand for affordable products that often have to meet special requirements of the local market, such as robustness and ease of repair. Another emerging, and for us promising, market is Africa. Its enormous pent-up demand gives it great long-term growth potential.



Business targets

The Bosch Group's business targets are derived from the "We are Bosch" mission statement, the strategic focal points, and the competitive environment. Over the longer term, we continue to aim for average annual sales growth of 8 percent, with up to 3 percentage points of this coming from acquisitions. By 2020, we want to double our sales in Asia Pacific and the Americas compared with 2013, to grow faster than the market in Europe, and to increase our sales in Africa from their present level of some 500 million euros to 2 billion euros. In terms of business sectors, we continue to aim for a better balance between Mobility Solutions and the other business sectors. The balance has improved thanks to the acquisition of BSH Hausgeräte.

We have also set ourselves the goal of an EBIT margin from operations of around 7 percent of sales, derived from benchmark comparisons of operating units, taking into account the significant up-front investments needed for growth projects and for the change processes this will involve. The target margin is regularly reviewed, also to take account of the existing portfolios of each of our areas



of business. The main reason the present target is lower than the previous year's target of 8 percent is the full consolidation of Automotive Steering and BSH Hausgeräte. Arithmetic effects are the main factor in this respect. Under the equity method applied in the past, the two units' pro rata share of after-tax income was included in Bosch Group EBIT, but not their sales. The revaluation of the assets of Automotive Steering and BSH Hausgeräte in the course of first-time consolidation results in higher depreciation and amortization, with a negative effect on earnings. This effect is not considered in the new target margin from operations, which is roughly 7 percent.

Strategy and innovation

Mobility Solutions

In the Mobility Solutions business sector, our goal is to occupy a leading position in the promising areas of electrified, automated, and connected driving. We also develop integrated mobility services, that is to say, solutions that allow cars to interact with other modes of transport such as bicycles, trains, and buses. We continue to develop the business sector from a supplier of systems and components into a provider of mobility solutions. We expect this to bring us new customers and additional business.

Strategic acquisition in battery technology

Our acquisition of the U.S. start-up Seeo Inc., Hayward, CA (USA) in 2015 gives us access to know-how in the field of solid-state cells for lithium-ion batteries. The battery is a key component of the electric vehicles of the future. Solid-state cells could represent a breakthrough in this area. Up to now, the industry target has been to double batteries' energy density and halve their costs by the end of this decade. We believe the new solid-state cells have the potential to exceed these targets.

The acquisition is an excellent fit with our electric mobility strategy. We already offer a wide range of components, from motors and power electronics to batteries. We have already carried out 30 production projects. Cooperation between the various divisions is extremely important. For example, our Electrical Drives division offers intelligent thermal management for electric vehicles, extending their range by up to 25 percent. In 2013, we established a joint venture with GS Yuasa and Mitsubishi Corporation, which is working to develop more powerful lithium-ion batteries. The acquisition of Seeo further extends our expertise. In current lithium-ion batteries, the anode largely consists of graphite, which limits energy density. Using solid-state technology, the anode can be manufactured out of pure lithium, which greatly increases storage capacity.

Internal-combustion engines still have potential

Despite these advances, the internal-combustion engine will continue to play a dominant role until well into the next decade. Demand for gasoline direct injection systems is currently rising on a scale similar to that enjoyed by diesel direct injection systems in recent years. This is because fuel-consumption and emissions standards have been tightened worldwide. Yet it is above all the diesel, with its outstanding fuel economy, that allows the EU's ambitious greenhouse-gas targets for 2021 to be met. Bosch has technologies to ensure that diesel engines meet strict nitrogen-oxide emissions regulations under real driving conditions.

When it comes to large, heavy cars, however, merely optimizing the internal-combustion engine is no longer enough. Hybrid designs are increasingly being used here. In fall 2015, Bosch presented the second generation of a 48-volt hybrid. The improved entry-level hybrid system achieves further fuel savings while also providing an extra 150 Newton meters of torque and hence better driving performance. The electric motor is integrated directly into the transmission. This makes fully electric driving possible over short distances – in inner-city traffic, for example. We expect that around four million new vehicles will utilize this system by the year 2020.

We have also made technological improvements to our gasoline and diesel direct injection systems. We have increased the fuel pressure in passenger-car diesel engines to as much as 2,700 bar, which



reduces emissions and fuel consumption. Furthermore, digital rate-shaping technology significantly reduces emissions, fuel consumption, and combustion noise by dividing the injection process into many tiny injections of fuel. For gasoline direct injection systems, we have likewise reduced fuel consumption and emissions by increasing fuel pressures to as much as 350 bar. Another approach to fuel saving is the active gas pedal. A gentle vibration tells the driver the most fuel-efficient pedal position. Another area of development is the connected powertrain. For example, we can time the regeneration of the particulate filter by connecting it with the navigation system's electronic horizon. In hybrid vehicles, this information can be used to charge the battery proactively, to allow driving in fully electric mode when a town is reached.

New units for commercial vehicles and two-wheelers

The commercial vehicle business, with which we generate around one-quarter of our sales in Mobility Solutions, offers further significant growth opportunities in terms of eco-friendly, efficient powertrain technology and assistance and connectivity solutions. One important strategic decision was the launch of a separate organizational unit for commercial vehicles and offroad business at the beginning of 2016, with responsibility for systems development, product management, and sales. Our aim is to meet industry-specific requirements more fully in the areas of truck transport, agriculture, and construction machinery, and to fulfill their specific needs better, such as smaller batches with greater variety. The new unit covers the entire product range, from powertrain technology, through steering systems, to infotainment solutions.

We are also expanding our two-wheeler business. In 2015 we launched a cross-divisional Two-Wheeler and Powersports unit. For two-wheelers, we offer safety systems such as ABS and MSC motorcycle stability control, fuel-saving powertrain technology, and display instruments. This unit increases our ability to address such regional markets as China, India, and ASEAN. The unit's headquarters, which has overall responsibility for development, sales, and result, is in Yokohama, Japan. This allows it to take advantage of close proximity to major motorcycle manufacturers. One market innovation in 2015 was the first blind spot assistant for motorcycles. The system's four surround sensors with ultrasonic technology help motorcyclists change lanes safely.

Focus needed

With mobility becoming electrified, automated, and connected, and with the significant up-front investments this calls for, a sharper focus is needed. We therefore decided in 2015 to spin off the Starter Motors and Generators division and, in a second step, to look for a suitable partner or buyer. We are convinced that the division has better long-term prospects as part of an alliance. A partner or buyer can focus on expanding the starter and generator business in this very cost-driven area and widen its global presence.

We have laid the foundations for this realignment by taking substantial steps to improve competitiveness and by working hard to develop new products and make new investments. For example, the division supports the ongoing development of low-voltage hybrid systems with its boost recuperation machine, thus making a significant contribution to CO₂ reduction compared with conventional internal-combustion engines. We have also made further progress in the conventional generator business. Generators with high-efficiency diodes and active rectification have been officially recognized by the European Parliament as fuel economy innovations. The division has a sound footing. This also means a secure outlook for associates under a new partnership. We also considered it important to inform associates at an early stage whenever possible. We also involve the employee representatives to a wide extent in our planning.

Growing market for driver-assistance systems

We expect automated driving to evolve gradually. Our efforts in this area are driven by the need to improve road safety. Worldwide, according to UN estimates, around 1.3 million people die as a result of road traffic accidents each year. Human error is to blame in 90 percent of cases. Legal and technical hurdles must be overcome before fully automated driving can become a reality. Even now, more and more partially automated functions and driver assistance systems are going into production. Our sales in the fast-growing market of driver assistance are currently growing by about one-third per annum. Around 2,500 Bosch experts are currently working on the development of driver assistance systems. ABS, TCS, and ESP® electronic braking control systems provide an important basis for this development. Since fall 2014, ESP® has been mandatory for all new vehicles in the European Union.

One important task is the integration of the former joint venture Automotive Steering, a technology leader in the promising field of electric steering systems. In 2015, Automotive Steering produced its 50 millionth Servolectric steering system. In passenger cars, but increasingly in light trucks as well, electric power steering is an essential component of many safety-relevant assistance systems, as well as a key element on the path toward automated driving. The introduction of Servotwin electrohydraulic steering for heavy trucks means that, for the first time, driver assistance functions such as lane-keeping can be realized in these vehicles as well. Assistance functions can contribute substantially to preventing accidents in the future – especially those involving commercial vehicles. Another focus area is the connecting of different components to create software-controlled systems. We have developed a solution which allows a car hooked up to a trailer to be maneuvered from outside the vehicle, using a smartphone. Moreover, electric power steering systems have the potential to substantially

reduce fuel consumption in vehicles with internal-combustion engines. The powertrain, steering, braking, and driver assistance systems can be coordinated better, for example during start-stop coasting.

Sensors are a key technology

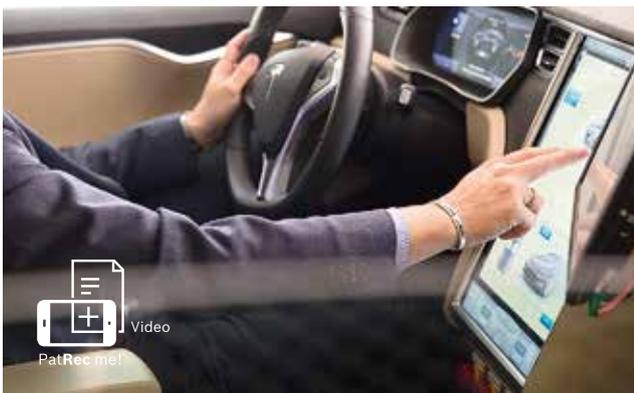
Sensor technology plays a key role. Bosch is a leading supplier of radar sensors, and has opened up radar technology to a wider market with its MRR mid-range radar sensor. The sensor provides the basis for several driver assistance functions such as adaptive distance and speed control and lane-keeping systems. This year we started production of a number of new systems, offering things from traffic-jam and evasive-action assistance to parking by remote control.

Sensors also have other uses. Working with Daimler AG, we have launched a pilot project for automated parking in parking garages. In the near future, vehicles will be able to maneuver independently, using a system that enables interaction between the parking garage infrastructure, vehicle control unit, and vehicle sensors. We are also collaborating with Verband Region Stuttgart on a pilot project for active parking lot management. Selected parking spaces will be equipped with sensors that detect whether the space is occupied and transmit the information in real time to potential users via an app.

The trend toward connectivity

The car of the future is connected. It uses up-to-the-minute information from the internet to get vehicle occupants to their destination even more safely, efficiently, and conveniently. In 2015, Bosch launched a cloud-based wrong-way driver warning system which warns drivers within ten seconds if a wrong-way driver is approaching. If the driver enables this cloud-based function, it compares the vehicle's actual movements with the permitted direction of travel to detect whether the vehicle is traveling in the wrong direction. Information about this is stored in a database in the cloud. The system is expected to go into production during 2016. To support these and other functions by generating highly accurate maps, Bosch entered an alliance with the Dutch map and traffic information provider TomTom in 2015. We already operate an eCall service and a mobile information service on behalf of several automakers, which we continue to expand.

To connect the car with the internet, Bosch follows two main approaches. First, it makes full use of the driver's smartphone. An agreement has been reached with a number of automakers to use the integrated mySPIN solution to link drivers' Android and iOS





devices to the vehicle's infotainment system. We now offer some 50 compatible apps for this solution. To develop them, we are adopting new methods. For example, we organize "hackathons", where programmers, software developers, designers, and product managers work together to quickly develop new software.

The second approach involves equipping the vehicle with connectivity hardware in the form of a connectivity control unit, which receives and transmits information using a wireless module with its own SIM card. Our portfolio includes devices specifically adapted to cars, commercial vehicles, motorcycles, and even rail freight cars. Fleet managers can also retrofit devices on their existing vehicles. Our overriding concern in developing such systems is the benefit to customers. At the 2016 Consumer Electronics Show, a touchscreen with haptic feedback developed by Bosch received the Innovation Award in the "In-Vehicle Audio/Video" category. The buttons on the touchscreen feel like real buttons. This facilitates orientation and makes driving safer.

Connectivity also means a growing services business. For example, vacant charge spots for electric vehicles can be located and paid for online. In addition, data transmitted from control units can be used to define preventive maintenance schedules. Such services support the fleet management of operations such as leasing companies. Using the Bosch "Drivelog" mobility portal, drivers can already use these services themselves in several European countries. We are also working to develop connectivity between different modes of transport. One example is the software solution developed for the "Stuttgart Services" project. Thanks to this soft-

ware, a single chip card can be used for car-sharing, bike-sharing, and train and bus travel, as well as for admission to amenities such as swimming pools or libraries.

Industrial Technology

Realignment of Drive and Control Technology

We are in the process of realigning the Drive and Control Technology division. Bosch Rexroth is focusing on its Mobile Applications and Industrial Applications business units, whose areas of business are mobile hydraulics, industrial hydraulics, electric drives and controls, and linear motion and assembly technologies. In Mobile Applications, there is substantial excess capacity due to weak market growth, particularly in China. In November 2015 we presented a comprehensive, multi-year restructuring plan, designed to close a cost gap of around 450 million euros. We have closely involved the employee representatives in our efforts to find ways of closing this gap, as well as to prevent the loss of some of the 1,150 jobs that will be affected between now and 2018. Wherever possible, we will make these job losses socially acceptable. This affects our German locations in particular. In October, we also announced that jobs will be shed in China.

We had previously presented a restructuring plan for Industrial Applications in order to strengthen competitiveness in this area. This involves the socially acceptable shedding of around 580 jobs by the end of 2016. We also sold our large gearbox business to ZF Friedrichshafen AG of Friedrichshafen, Germany. Large gearboxes are used in applications such as wind turbines, tunnel-boring machines, and mining excavators.

We consider it vital to strengthen Drive and Control Technology's competitiveness, as this division plays a leading role in the world of connected industry (Industry 4.0 or I4.0). The pioneers of industrial connectivity are sectors that already have experience of production systems and multi-variant manufacturing, such as the automotive industry. As an automation partner, Bosch Rexroth works closely with several automotive and machine-tool manufacturers, supporting them with drive and control solutions that help them develop the connectivity of their entire production system.

To promote Industry 4.0 within the Bosch Group as a whole, we created a cross-divisional “Connected Industry” innovation cluster at the beginning of 2015. In its own factories, Bosch wants to become a leading user, with a focus on reducing costs, increasing quality, and meeting delivery commitments. At the same time, it also wants



to be a leading provider in external markets. With experience gained from more than 100 pilot projects in Bosch factories, we develop comprehensive solutions that we also aim to market to other companies. These solutions include an open I4.0 platform architecture for hardware and software.

In the field of factory automation, the electrification of all technologies is also a focus area for Bosch Rexroth. Measuring systems integrated into linear guidance systems, the IndraDrive ML electric drive, and above all electrohydraulic solutions with digital intelligence can be incorporated into connected environments. The IMS integrated measuring system makes even higher precision possible, down to four-thousandths of a millimeter, even under the harsh conditions of metal cutting, with its strong vibrations and other forces. The new IndraDrive ML extends the IndraDrive family in the upper power range up to four megawatts. The ABPAC hydraulic power unit series continuously senses different operational states and recognizes wear at an early stage before it leads to failure.

We also support machine and systems manufacturers in the electrification of metalforming technology, with variable-speed pump drives, digital pressure and flow control, and servohydraulic axes. Using the ActiveCockpit as a communications platform, IT applications such as production planning, quality data management, e-mailing, and personalized calendars can be connected with the software functions of machinery and equipment. ActiveCockpit visualizes all relevant data in real time as the basis for decisions and process optimization.

In Mobile Applications, we are reorganizing our sales structures. Our goal is to support major international customers, regional SME customers, and dealers even more effectively. We are also expanding the services business in order to boost sales of spare parts and repair services, which are largely independent of economic cycles. In addition, we are investing more heavily in innovation, developing solutions for the further electrification of mobile hydraulics and shaping technological change with state-of-the-art machinery. The EDIS system solution allows wheel-loader operators to reduce their fuel consumption. The HyStop hydrostatic quick-stop system brakes the rollers of grass or corn forage harvesters quickly and gently, even at high speeds. It is much less susceptible to failure than mechanical stopping systems.

We are also breaking new ground in the manufacture of our products. To overcome technological barriers, the Bosch Rexroth foundry in Lohr am Main, Germany, uses 3D printers for short production runs and prototyping of casting cores. Even complex shapes can be realized in this way, resulting in shorter development periods and lower costs. Consequently, small batches and spare parts can be produced more efficiently and at optimum cost.

Packaging Technology makes acquisitions in North America

Europe and North America will remain important target markets for the innovations of our Packaging Technology division. We also expect above-average market growth in Asia and Africa. We strengthened the division in North America through the acquisition of Osgood Industries Inc., Oldsmar, FL (USA), which manufactures fill and seal equipment for pre-formed containers that have to meet very stringent hygiene standards for foods such as ice cream or yogurt. We also acquired Kliklok-Woodman Corporation, Decatur, GA (USA), a manufacturer of machinery for packaging goods such as



pastries and confectionery, frozen food, and dairy products. This deal also included Kliklok International, Bristol, United Kingdom. The portfolio includes primary and secondary packaging machinery, such as cartoning and sealing machines. In addition, we acquired 49 percent of the shares in Klenzaid's Contamination Controls Pvt. Ltd., Mumbai, India, which produces process, packaging, and clean-room technology for the international pharmaceuticals industry. In the pharmaceuticals and food segment, we also established the BOPATEC S.A. de C.V. joint venture, Mexico City, Mexico, with the Mexican Hubapac Group and set up sales and service locations in Kenya, as well as a service center in Brazil.

To strengthen our market position in these emerging markets, we are expanding our range of less complex machinery and equipment in the mid-range performance segment. We are also focusing on the development of I4.0 solutions, including an increased range of remote maintenance services, and track and trace solutions for packaging in the pharmaceuticals industry. Here, a special identification code is printed on every packaged product. This allows the package to be tracked throughout the entire supply chain – from factory to consumer. Bosch also offers the APAS product family, a range of production assistants designed specifically to work with human operators. Applications include critical processes such as inspection of highly sensitive surfaces, completeness checks, or high-precision joining. Moreover, a newly developed automation system uses software modules to monitor and control production and quality data as well as logistics processes along the entire value chain.

Consumer Goods

Power Tools expands its product portfolio

The Power Tools division maintains a strong market position for power tools, gardening equipment, measurement tools, and accessories, above all through regular product innovations with significant user benefits, and the strong brands that result from them. Over one-third of its products are less than two years old. The division produced around 50 million power tools in 2015 – more than ever before, and nearly twice as many as ten years ago. Power Tools serves various target groups with widely differing requirements: do-it-yourselfers on the one hand, and professional users in developed and emerging markets on the other.

In the case of professional users, developed and emerging markets show divergent trends. In developed markets, the focus is on improving productivity, and increasingly on health and safety aspects such as dust, noise, and vibration. Innovations such as the world's most powerful small angle grinder offer improved ergonomics and a high level of user protection, for example. Inventory management is also an important issue for professional users. Since fall 2015, Power Tools has offered a cloud-based solution called TrackMyTools for managing and locating equipment.

In emerging markets, many customers are using power tools for the first time. These tradespeople first have to be convinced of the benefits of changing from traditional hand tools to power tools. They need affordable power tools that are robust and easy to maintain. Power Tools is making great efforts to cultivate emerging markets such as China, India, Russia, Brazil, and Africa. Following successful pilot projects in China and Russia, a complete range of products will now be launched gradually in these emerging markets. We have also made organizational changes in Power Tools to meet these differing requirements. Responsibility for developed markets such as western Europe, North America, and Japan rests with our offices in Leinfelden-Echterdingen near Stuttgart, Germany. Our base in Shanghai, China, is now responsible for emerging markets.

From a technical perspective, two overall trends are apparent both in the do-it-yourself market and among professional users. First, there is growing demand for powerful rechargeable tools. Second, the rapid development of the internet and increasing use of smartphones and tablets open up additional possibilities for intelligent solutions and services.



Particularly in the case of measuring instruments, connectivity is a major theme for DIY and professional users alike. For example, measurements taken with a laser distance meter with integrated Bluetooth interface can be transmitted quickly and easily to a matching app for Android and iOS smartphones and tablets, where they can be processed. In 2015, our range of professional measuring instruments was extended to include temperature measurement devices. Our new thermal detectors also have connectivity features.

In the case of power tools for DIY users, optimum coordination of key components such as the motor and gearbox combined with the intelligent "Syneon Chip" allows even more powerful rechargeable tools to be created. More and more garden tools use this technology – handy, lightweight, but powerful cordless appliances are especially popular with amateur gardeners. The web-enabled Indego Connect robotic lawnmower decides when to mow the lawn on the basis of internet weather forecasts.

Full takeover of BSH Hausgeräte

The Consumer Goods business sector was considerably strengthened in January 2015 when the acquisition of the former joint venture for household appliances was completed. With its strategic and technological approach, BSH Hausgeräte is an excellent fit for Bosch and our "Invented for life" ethos. The company's products are designed with an emphasis on energy efficiency, smart technology, convenience, and ease of use, making the lives of people around the world easier and more pleasant.

BSH Hausgeräte has adopted an ambitious growth strategy. A differentiated brand strategy will be used to serve different consumer groups, ranging from the entry-level segment to the luxury class. A regional customer focus is another goal, given the significant regional differences in customers' needs. The organization has been restructured to support this strategic orientation. This primarily involved switching business management from a product-centered to a regional approach.

One country where a stronger regional focus is important is China, an important growth market for BSH Hausgeräte. A new dishwasher factory is being built there. Dishwashers designed for the Chinese market have specially shaped crockery and cutlery baskets, to hold a wok, rice or soup bowls, and chopsticks in the best possible way.



Special wash programs are designed to meet the hygiene requirements of Chinese consumers. With the construction of this new factory, the BSH Home Appliance Park in Chuzhou has acquired greater strategic importance. At this location, the company will drive forward the development of state-of-the-art technologies and solutions, and exploit synergy and efficiency potential through its links with various other BSH household-appliance plants.

For BSH Hausgeräte as well, connectivity is a major theme for the future. The company has developed a solution called Home Connect, which allows different appliances, even from different brands, to be controlled using an app. In 2015, one year after the launch of Home Connect, BSH Hausgeräte presented a range of connected devices for consumer electronics and home appliances at the IFA trade show. By 2018, most new products, as well as some small household appliances, will offer connectivity features.

For example, washing machines, dishwashers, and tumble dryers are now able to work more efficiently thanks to connectivity. Depending

on the settings, Home Connect tells the user via a push message that the wash is finished or that dishwasher tablets are running out. The FlexStart Option is especially useful for households that meet part of their electricity needs from decentralized sources, such as a photovoltaic array on the roof. The app also allows users to look inside their refrigerator when they are away from home, thanks to two interior cameras. At the IFA, BSH Hausgeräte demonstrated how the Home Connect app can be used for the remote diagnosis of technical problems. The company is also breaking new ground in the development of digital solutions, and held its first “hackathon” in 2015. Around 40 people took part. Over three days, they came up with new ideas for linking modern household appliances with intelligent sensors, thermostats, weather stations, and webcams.

The subject of energy efficiency remains an important strategic focus. Energy-efficient appliances can contribute significantly to climate protection and water-saving. Appliances currently produced by BSH Hausgeräte consume up to 75 percent less electricity than their counterparts 15 years ago. Other notable innovations in 2015 included new temperature-controlled induction stoves, active oxygen washing machines for germ-free laundry even at low temperatures, as well as a new generation of fridge-freezers with different zones for keeping food fresh. Design and lifestyle features are especially in demand for small appliances. Coffee machines are a particular success.

Energy and Building Technology

With the goal of being a systems suppliers and service provider for smart energy and building technology, we continue to develop this business sector. To this end, we have defined four key areas.

Connected products for private customers

The first area is concerned with expanding the Security Systems and Thermotechnology divisions' range of products for home users. Connected products and solutions play an increasing role in this area. Security Systems has expanded its AMAX family of web-enabled intrusion alarm systems for small to medium applications. Thermotechnology has unveiled a new generation of web-enabled heating systems for residential buildings. Having sold more than 100,000 connected products, Bosch is a leading supplier of smart heating solutions. The new “HomeCom” portal provides installation companies with detailed information about their customers' con-

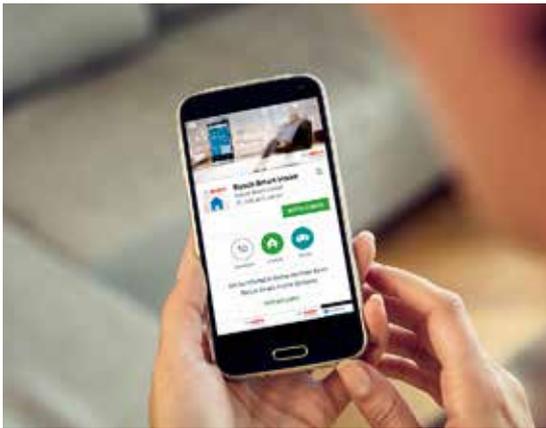


nected heating systems, while end-users receive all the information they need about their central heating, along with consumption data and personalized energy-efficiency tips.

Solutions that connect different areas of the home are an area with great potential. According to market experts, some 230 million homes worldwide – almost 15 percent of all households – will benefit from smart-home technologies by 2020. This prompted us to bring the activities of the Security Systems and Thermotechnology divisions in this field, as well as those of the subsidiary Bosch Software Innovations GmbH, under the control of a new subsidiary company, Robert Bosch Smart Home GmbH. Since January 2016, customers have been able to order the first products online.

Bosch smart-home system solutions offer users a single platform on which to interconnect their heating, lighting, smoke alarms, and other home appliances. All these can then be controlled simply by smartphone or tablet. The BSH Home Connect app can also be integrated into this solution. The core of the system is the Bosch smart-home controller, a central control unit that connects individual appliances to each other and to the internet. The Bosch Smart Home app can be used to combine the basic functions of unrelated devices. When it comes to connectivity, we believe open standards

and open platforms will make the technology as user-friendly as possible. We have the highest data-privacy and data-security standards. These standards are taken into account right from the start of the product development process. For this purpose, we have also set up a center of competence for product security. Customers and users know exactly what data have been collected, and decide for themselves how it is used.



Product solutions and services for commercial customers

Two further areas offer product solutions and services for commercial customers. We are expanding the air conditioning business. In 2015, we established a joint venture with the Chinese technology company Midea for the production of variable refrigerant flow (VRF) systems. These systems employ variable flows of refrigerant to provide commercial buildings with heating and air conditioning. Production will start in early 2016. In the future, Bosch will thus be able to offer a complete range of heating, ventilation, and air conditioning systems.

One example of a product solution for commercial buildings is the BIS building integration system, which greatly simplifies and standardizes the central monitoring and control of security and fire protection equipment. We also offer EffiLink, a system platform for services such as remote monitoring and remote maintenance of building installations. Bosch offers control for large energy systems with the new Master Energy Control (MEC System) product family. This enables industrial customers to create an efficient energy system that integrates boilers, combined heat and power plants, and storage, and to

control it using an intuitive interface. Bosch develops turnkey storage solutions for power utilities and commercial customers. To this end it has set up the "Second Life Batteries" project jointly with BMW and Vattenfall. In Hamburg, used batteries from electric vehicles are being joined together in this project to form a large energy storage system.

In the field of building services, we have pooled our activities to achieve an even more effective presence. At the beginning of 2016, we formed a new International Integrator Business unit. This combines the commercial service business of the Building Security unit of the Security Systems division, the subsidiary Bosch Energy and Building Solutions GmbH, and Climatec, the provider of building automation services that we acquired at the beginning of 2015.

New Service Solutions division

The fourth area, business process management, is concerned with services relating to business processes for external and internal customers. At the beginning of 2016, we established a new Bosch Global Service Solutions division. The existing global service network of the Security Systems division for business services provided the basis for the reorganization. In the first months of 2016, we will open another service center in Leipzig, initially creating around 200 jobs, which will be Bosch's fourth German service solutions location. Around 6,000 service associates at 23 locations currently provide services around the globe in over 30 languages. They are focused mainly on customers from the automotive, travel, and logistics industries, as well as on customers working in information and communications technology.

Cross-selling increasingly important

The Energy and Building Technology business sector coordinates our cross-selling activities. Here, we offer solutions that are aimed in particular at verticals such as mining, hotels, large stadiums, airports, automobile manufacturing, train stations, and theaters. The focus was initially on projects in the mining, theater, and automobile manufacturing sectors. In future, we will develop further projects in the pharmaceuticals, food, and commercial-building sectors. We also see great potential for smart-city solutions and services.

Looking to the future

Bosch on the way to becoming an IoT company

Our goal is to become one of the world's leading IoT (internet of things) companies. We operate on all three levels of connectiv-

ity – intelligent and connected devices, software platforms, and applications and services – in order to provide additional benefits to customers. More than 40 percent of our product categories are already web-enabled, and this is rising rapidly. MEMS sensors are a key technology for connectivity, and we have extensive expertise in this area.

We also have our own software platform, the IoT Suite, developed by our subsidiary Bosch Software Innovations. This IoT Suite is a comprehensive software solution that can be used to develop, provide, and operate applications on the internet of things. We have multiplied the capacity of this platform over the past few years. We also strengthened the business in 2015 through the acquisition of ProSyst Software GmbH, Cologne, Germany. This company specializes in the development of gateway software and middleware for the internet of things. This software facilitates interaction between connected devices in the smart home, connected industry, and mobility segments.

We are also developing our expertise in the field of automated data analysis (data mining). A team of experts is working exclusively on such tasks, supporting associates from the business sectors in putting related projects into practice. The data experts are based mainly in Palo Alto, California – in the heart of Silicon Valley – and in Bengaluru, India. Bosch's global alliance partners in this field include Stanford University and the University of Pittsburgh. To make the most of this expertise, we are also working to increase our capabilities in developing new business models, particularly in relation to services. For example, we have created a new corporate unit to make methodological expertise in areas such as automated parking or robotics available throughout the company. As far as the products and services themselves are concerned, it is very much about customer benefit. Our user experience corporate department helps the divisions use modern product development methods jointly with customers.

We firmly believe that large companies such as Bosch need to make space to allow more entrepreneurial spirit. We therefore have our own start-up platform. Robert Bosch Start-up GmbH, Stuttgart, Germany, helps Bosch development teams become successful entrepreneurs. For example, it takes care of things such as premises, financing, and other administrative tasks. One example is the start-up that created the Bonirob agricultural robot. The team from Deepfield Robotics is developing this robot, which is the size of a compact car, as an aid for plant breeding and crop farming.



New research campus in Renningen

In the fall of 2015, we opened a new research campus in Renningen near Stuttgart, Germany. This is a flagship project for Bosch, in which we have invested around 310 million euros. We plan to use the campus to further develop cross-divisional collaboration and our capacity for innovation. We want it to become a hub of Bosch's global research and development network, which employs around 55,800 associates, approximately 42 percent of whom now come from outside Europe. In Renningen alone, a total of 1,200 associates in corporate research and advance engineering, plus 500 PhD students and interns, are now working on the technical challenges of the future. Their work is focused on areas such as sensor technology, automation, driver assistance systems, battery technology, and improved automotive powertrain systems. We are also working to expand our basic software expertise – particularly for IoT connectivity.

We devoted special attention to creating attractive working conditions on the campus. Wifi connections are available in every building and everywhere on the grounds. Laptops, tablet computers, and voice over internet mean that work can be done in every corner of the campus. Office layouts were designed on the basis of a comprehensive analysis of the innovation process. The result of the joint consultation with the parties involved was a completely new office concept.

Working in the Bosch Group

Diversity as a factor for success

Our human resources management work supports our business strategy. Only a modern working environment will enable us to compete successfully for the best brains and solutions, and thereby achieve lasting success. Given our broad presence and international character, we offer a wide range of employment opportunities in our international research and development network, in a global manufacturing organization, and in a wide range of management and marketing roles – from start-ups to group functions. Technical, leadership, and project career paths carry equal weight. Moreover, we strongly believe that mixed teams of men and women, embracing different generations and lifestyles and from diverse backgrounds, promote excellence and increase our capacity to innovate. Worldwide, we employ people of more than 150 nationalities in total.

In 2015 alone, we hired more than 16,000 graduates around the world (still excluding BSH Hausgeräte). More than one-quarter of these hires were IT specialists. Our executives are recruited mainly from our own ranks. We are making progress in our efforts to increase the percentage of international executives in the regions and of women in leadership positions in the company as a whole. In the majority of our focus countries, the percentage of local executives now stands at around 80 percent. Moreover, the target of 20 percent for the proportion of women in leadership positions has already been exceeded in several countries, including China and Spain.

Bosch has operated a senior expert model for more than 15 years. Bosch Management Support GmbH is headquartered in Leonberg, Germany. It also has operations in the United Kingdom, Austria, Turkey, the United States, Mexico, Brazil, Japan, and India. At the present time, 1,700 former associates make their experience and expertise available when professional advice is needed quickly. However, such knowledge sharing is not a one-way street. In reverse mentoring programs, young associates share knowledge with their elders on topics such as the use of new IT tools.

Creating attractive work environments

We aim to create attractive employment models for all associates and help them achieve a satisfactory work-life balance. Associates, as well as executives who work in non-production-related areas, already use a wide range of working models that allow them freedom to decide where and when they work. We are conducting pilot projects to examine how we can improve our flexible working culture in production and production-related environments. We believe the connected industrial production of the future offers great opportunities. Childcare services are also available close to our locations. As well as time spent abroad or job changes, we regard family leave – whether for childcare or looking after dependent relatives – as an element on a career path.

We are also developing concepts for the workplace of the future under the title “inspiring working conditions.” Initial field tests have produced such impressive results that the concept is gradually being applied worldwide in all newly built and renovated Bosch locations. This also applies to manufacturing operations. In the future we plan to introduce more services at locations to make life easier for associates, such as shopping services and health centers with gyms.

We also believe in providing scope for creativity. For example, developers in corporate research and advance engineering are given four hours of “concept time” per week to discuss ideas that go beyond their normal area of work. Yet we require creativity from all Bosch associates. As early as 1924, the company founder Robert Bosch introduced a company suggestion scheme. Today, associates have many opportunities to contribute ideas for new products and suggest improvements to processes and services. This is increasingly done using the internal social business platform Bosch Connect.

We are also looking at the new demands being made of leadership and collaboration. Here we ask ourselves how we can improve the company’s ability to change, as well as the speed of change. Our global associate surveys that we conduct every two years are an important basis for managing change. In our most recent survey, 83 percent of associates agreed with the statement: “I am proud to work for the Bosch Group.”

At the same time, we continue to develop our remuneration system to reflect the increased demand for personal initiative, cross-divisional collaboration, and entrepreneurship. We therefore changed our worldwide remuneration system for specialists and executives at the beginning of 2016. The new variable salary component, the Bosch



Performance Bonus, is now based entirely on divisional and company performance. Individual performance is more closely reflected in the basic salary, taking long-term performance, job value, and labor-market orientation into account. In this way, we give greater weight to work across divisional boundaries and a leadership style that is based on respect and trust and encourages honest feedback.

Importance of occupational training and professional development

Occupational training and continuing professional development have traditionally been regarded as very important at Bosch. Worldwide, over 7,300 young people completed apprenticeship schemes at Bosch in 2015, similar to the high levels of previous years. Due to the strong tradition of dual education in companies and schools, many of these young people – around 4,900 apprentices – are in Germany. At our locations worldwide, moreover, we have many training centers of our own that provide training specifically for technical trades. They include our sites in France, Turkey, India, China, and Vietnam, as

well as in Brazil and North America. Topics such as software, IT, and Industry 4.0 also play an increasingly important role in occupational training and continuing professional development.

To support the integration of refugees in Germany, we plan to initially offer some 400 internships in Germany during 2016. We can draw on experience of our program for young people from southern Europe. In 2014, we created around 100 additional apprenticeships, about half of them in the young people's countries of origin and half in Germany, to make a practical contribution to combating youth unemployment in southern Europe.

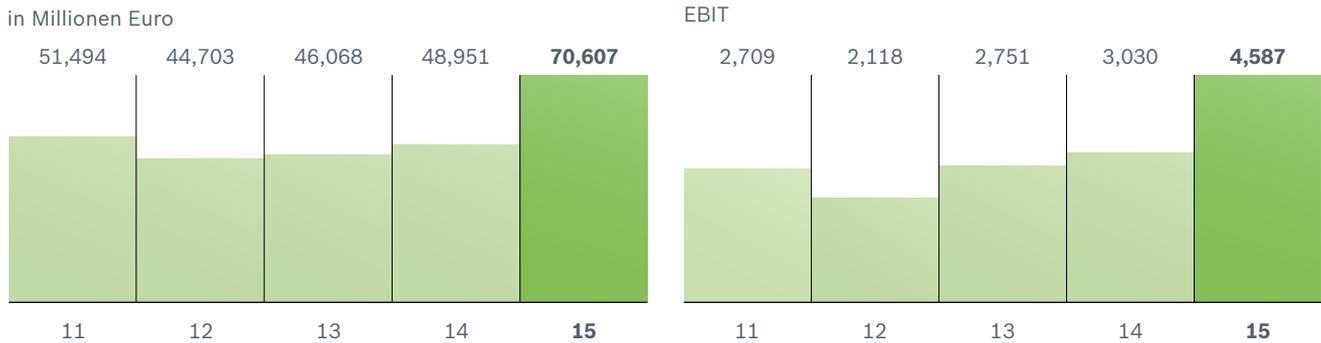
At the same time, competence management and the further training of associates have always played a major role in the Bosch Group. In 2015, we invested around 250 million euros in this area, including Automotive Steering and BSH Hausgeräte. Besides traditional classroom teaching, new electronic learning methods are also gaining ground. The Robert Bosch Kolleg offers continuing professional development at university level for specialists and executives.

Comprehensive internship programs for students, scholarship programs, pre-master's programs, and postgraduate programs complete these activities. In our trainee programs, the Junior Managers Program, and the Graduate Specialist Program, we provide training specifically for the specialists and executives of the future. We also maintain numerous partnerships with universities around the world. Through the Bosch InterCampus Program founded in 2011 (our anniversary year), with a total endowment of 50 million euros, we have been supporting universities and research projects in Germany, the United States, and China, focusing on the environment, energy, and mobility, as well as on software development in India.

G.03

Development of sales revenue and EBIT Bosch Group, 2011–2015

Figures in millions of euros



Report on economic position

On the whole, the Bosch Group developed favorably, despite a weaker economic environment in 2015. The acquisitions of the former joint ventures for automotive steering systems and household appliances led to a huge increase in sales. In operational terms as well, sales and earnings rose significantly. Performance varied considerably by business sector and region. The Mobility Solutions and Consumer Goods business sectors were particularly successful. The Energy and Building Technology business sector was also able to significantly improve its figures year on year. On the other hand, parts of the Industrial Technology business sector are suffering from a very weak market environment. From a regional perspective, sales in North America recorded particularly strong growth; sales also grew positively in Europe. By contrast, sales growth in Asia Pacific did not match that of previous years. The situation was once again very difficult in South America.

Controlling system

The Bosch Value Concept as the basis for control

The Bosch Value Concept pursues Bosch's core objectives of profitable growth and financial independence. The controlling system combines value creation with value preservation. Particularly for an unlisted company such as the Bosch Group, being able to expand and maintain profitability over the long term is crucial for financing future growth.

The main control parameters for value creation are sales growth, earnings before interest and taxes (EBIT), and the internal "operating value contribution" indicator. The operating value contribution is calculated in the same way as EBIT, but also deducts the cost of capital for current and non-current assets. Internal reporting is based in principle on the International Financial Reporting Standards (IFRS). However, in certain respects, such as recognition of impairment losses, pension provisions, and provisions for losses arising from delivery commitments, internal reporting deviates from external accounting. For the management of operations and the executive incentive program, we adjust for the earnings fluctuations associated with these factors. We secure value by closely tracking cost trends and through liquidity management that includes centralized financial planning.

The central internal reporting tool is a monthly business report, which contains an up-to-date overview of the operating units' performance indicators. It provides a year-on-year comparison and a target versus actual comparison of key performance indicators. The report is based on the business plan, which is embedded into longer-term strategic corporate planning. As part of the business plan for 2016, the "target business plan" scheme was introduced. This greatly simplifies and speeds up the process of group-wide business planning, and reduces planning effort. The focus is on developing and carrying out measures designed to achieve the planning targets. External benchmarks are taken as the starting point for planning. The targets derived from these

are also a guide for the value contribution targets. From 2016, these targets alone will be the basis for the result-based portion of specialists' and executives' variable remuneration, from section-manager level to the board of management.

Macroeconomic and sector-specific environment

Weak economic environment

World economic output, measured on the basis of global GDP, rose by only 2.5 percent in 2015. Economic momentum slowed down over the course of the year. Growth thus fell short of our already cautious forecast of 2.7 percent, and was below both the level of the previous year and the long-term trend of 3.3 percent. This was largely due to weak growth in emerging markets.

As expected, advanced economies increased their economic output by around 2 percent, helped by robust growth in the United States, where output rose by 2.4 percent. The European Union also performed better than expected, with economic output growing by 1.9 percent, compared with our forecast of only 1.3 percent. Germany's economic growth also exceeded expectations, coming in at 1.7 percent. There was also stronger impetus from Spain, while Italy and France grew slightly. Growth in Europe as a whole reached 1.4 percent. This was also slightly higher than forecast. However, the good developments in the EU were offset in part by the recession in Russia and weak growth in Turkey.

Momentum in emerging markets slackened considerably. Growth remained at around 3.5 percent, below our already cautious estimate of roughly 4 percent. Major influencing factors included slower growth in China and recessions in South America and Russia. Slightly higher growth in India was not enough to offset this. Africa also experienced slower growth.

In commodity markets, the prices of oil and other fuels continued to fall in 2015. Prices of industrial and precious metals also declined significantly. The main reasons included slower growth in emerging markets, particularly China, and a surplus of oil and gas. The euro was significantly weaker than in the previous year against the U.S. dollar and other currencies that are important to us, such as the Chinese yuan and the British pound.

Core markets important to our company were subdued. Automotive production including heavy trucks rose by only about 2 percent to some 92 million units, short of our expected figure of 93 million vehicles. Production of heavy trucks reached 2.8 million units, compared with 3.1 million units in the previous year.

One reason for the weak performance in 2015 was sluggish momentum in China, despite a slight tax cut-induced recovery in the final quarter. Chinese production over the year as a whole grew by only about 4.5 percent, well below the growth rates of previous years. Automobile production declined in Japan, but picked up again in India after a weak year in 2014. There was only moderate growth in North America, while production figures in South America again declined sharply. While minor increases were recorded in Europe as a whole, these were entirely due to a sharp increase of 6.5 percent in the European Union. Production figures in central and eastern Europe, particularly Russia, fell substantially.

Production figures in mechanical engineering were very disappointing. Worldwide, they increased by only around 0.5 percent, and thus lagged far behind our growth forecast of around 4 percent. This affected all major regions. Production figures declined slightly in Europe, and were slightly positive in the Americas thanks only to a relatively stable performance in the United States. In Asia, substantially slower growth resulted in a 2 percent rise, far short of the growth rates of the past.

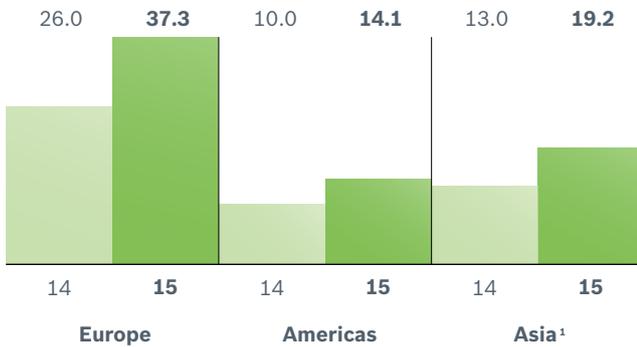
Global private consumption grew by around 2.3 percent in 2015. Despite low oil prices, consumption levels were weaker than in the previous year and lower than we expected. Consumption developed somewhat more favorably in Europe, an important market for Bosch, particularly in the southern countries that were hard hit by the debt crisis.

Growth in global construction activity was lower than expected; the rise of 3.4 percent was below the 2014 level of around 4 percent. This was largely due to subdued growth in emerging markets, above all in China and South America. But in the European Union as well, momentum was weaker than in the previous year. In the United States, on the other hand, construction investment rose very strongly.

G.04

**Bosch Group sales revenue
Regional comparison**

Development of sales revenue, 2014–2015
Figures in billions of euros



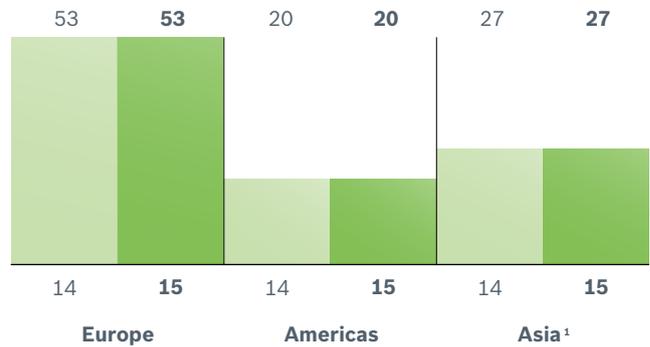
Total 2014: 49.0 billion euros
Total 2015: 70.6 billion euros

¹ Including other countries

G.05

**Bosch Group sales revenue
Regional comparison**

Structure of sales revenue, 2014–2015
Percentage figures



Course of business and sales trend

Strong growth for the Bosch Group as a whole

The Bosch Group’s sales revenue rose to 70.6 billion euros, an increase of 44 percent compared with the figure of 49 billion euros recorded in the previous year. In our operations, i.e. compared with the pro-forma figure for 2014, with full inclusion of the Automotive Steering and BSH Hausgeräte subgroups, we increased our sales by around 10 percent in nominal terms. After adjusting for exchange-rate effects, sales increased by 3.8 percent compared with the pro-forma figure for 2014, and were within our target range of 3 to 5 percent for 2015. The figures for 2015 include Automotive Steering, which was fully consolidated for eleven months.

Positive exchange-rate effects on a like-for-like basis total approximately 4 billion euros. The most significant positive exchange-rate effects were due to the euro’s weakness against the U.S. dollar, the Chinese yuan, the British pound, and the Swiss franc. Negative exchange-rate effects were minor by comparison, and relate in particular to the Russian ruble, the Turkish lira, and the Brazilian real.

The revenue effects arising from full consolidation of the former joint ventures BSH Hausgeräte and Automotive Steering, previously reported at equity, amounted to around 16.5 billion euros in 2015. Other notable positive revenue effects of some 180 million euros resulted from the first-time consolidation of Climatec. These effects were countered above all by the sale of the Drive and Control Technology division’s large gearbox activities, though essentially this will not affect the sales figures until 2016. In December 2014, we also disposed of our Garden and Watering operating unit based in Peoria, IL (USA). All in all, consolidation effects amount to a net total of 16.6 billion euros.

Comparable regional sales structure

The first-time full consolidation of Automotive Steering and BSH Hausgeräte had no major impact on sales structure by region.

In 2015, we generated sales of around 37.3 billion euros in Europe, which again accounted for around 53 percent of total revenue. Calculated on a comparable basis, we increased our sales by about 3.8 percent, a stronger performance than in previous years. With total sales of 14.1 billion euros, the Americas once again accounted for approximately 20 percent of revenue. On a comparable basis, we increased our sales in North America by 25 percent, and by 6.7 percent after adjusting for exchange-rate effects. By contrast, sales in South America declined on a comparable basis by 13 percent, and were also down 3.7 percent on the previous year after adjusting for exchange-rate effects. Asia Pacific’s share of total sales (including other countries) remained largely constant at 19.2 billion euros or around 27 percent. However, while sales in euros grew on a comparable basis by 17 percent year on year, they increased by only 2.8 percent after adjusting for exchange-rate effects. This was mainly due to subdued growth in China.

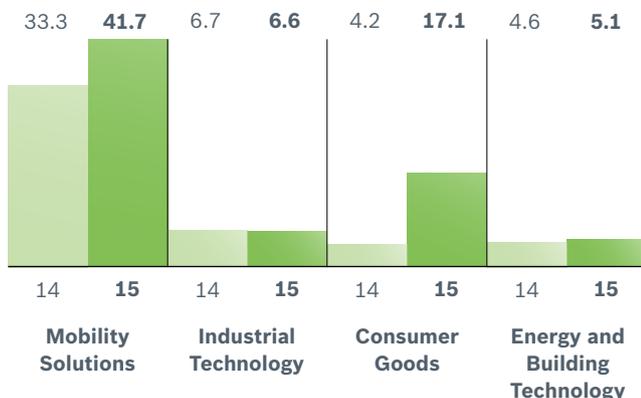
Substantial change in sales structure by sector

There were, however, considerable shifts in the sales structure by business sector, due to the integration of Automotive Steering into the Mobility Solutions business sector and, in particular, the full consolidation of the BSH Hausgeräte subgroup within the Consumer Goods business sector. The Mobility Solutions business sector generated sales of 41.7 billion euros in 2015, compared with around 33 billion euros the previous year. The sector’s share of total sales declined to 59 percent, however. This was due to the Consumer Goods business sector quadrupling its sales to more than 17 billion euros. Its share of sales now stands at 25 percent. Industrial Technology and Energy and Building Technology now account for 9 percent and 7 percent of sales respectively.

G.06

Bosch Group sales revenue Sectoral comparison

Development of sales revenue, 2014–2015
Figures in billions of euros



Total 2014: 49.0 billion euros

Total 2015: 70.6 billion euros

Also in comparison with the pro-forma figures for 2014 (including Automotive Steering and BSH Hausgeräte), the Mobility Solutions and Consumer Goods business sectors achieved the largest sales increases relative to the other business sectors. Mobility Solutions performed much as expected, while Consumer Goods exceeded expectations.

Performance varies by segment

Mobility Solutions grows well

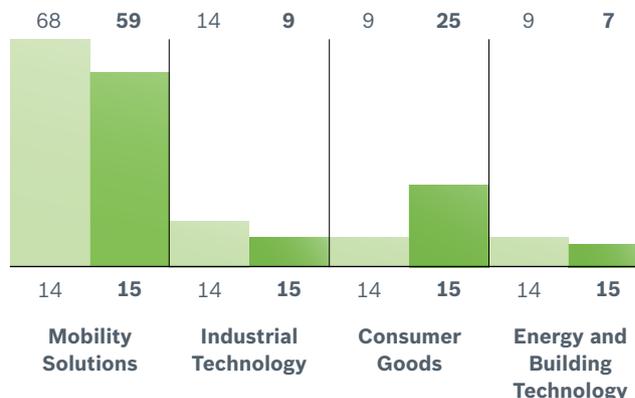
The Mobility Solutions business sector increased its sales to 41.7 billion euros. This was an increase of around 12 percent compared with the pro-forma figure for 2014 (including Automotive Steering), and of 4.6 percent after adjusting for exchange-rate effects. As a result, it significantly outperformed worldwide automobile production, benefiting from healthy demand for efficient powertrain systems and a substantial increase in market demand for driver assistance systems and modern display and infotainment systems. In all segments, we were successful with a large number of innovations and developments.

In powertrain technology, there was particularly strong demand once again in 2015 for gasoline direct injection systems, engine management systems, transmission control systems, air management components, and sensors. In diesel technology, we increased our sales thanks in particular to further growth in demand for modern fuel-injection and exhaust-gas treatment systems. Car Multimedia benefited above all from healthy demand for display and infotainment systems. In the starter motors and generators business, we developed new generations of products and benefited from growing international demand for start-stop systems. In Electrical Drives, innovations in e-scooter motors and the engine compartment actuator – the new

G.07

Bosch Group sales revenue Sectoral comparison

Structure of sales revenue, 2014–2015
Percentage figures



Bosch brushless motor platform – paid off. We again enjoyed great success with drive systems and control units for e-bikes. Brake control systems also developed favorably. Moreover, electric steering systems for passenger cars were very much in demand. We also substantially increased our sales of sensors. The spare parts business was more subdued, though sales increased slightly overall; in particular, we achieved growth in western Europe and South America.

Industrial Technology suffering from a market downturn

The Industrial Technology business sector was hit by a declining market trend in important mechanical engineering segments. Sales dropped nominally by 1.6 percent to 6.6 billion euros (6.5 percent after adjustment for currency effects). This unsatisfactory performance is attributable to the Drive and Control Technology division, particularly its Mobile Applications business unit. This is due to a significant market downturn for construction and agricultural machinery, and also in the mining sector. The companies that manufacture this machinery are reducing capacity, relocating to lower-cost countries, or closing down their plants. In addition, sales of construction equipment in China – the world's largest market – declined sharply. In the area of industrial applications, sectors important to Bosch such as mining, offshore, or metallurgy deferred investments due to low commodity prices. On the other hand, the market for factory automation proved stable and presented opportunities for growth in 2015. The division took advantage of these, also thanks to the tailwind provided by Industry 4.0.

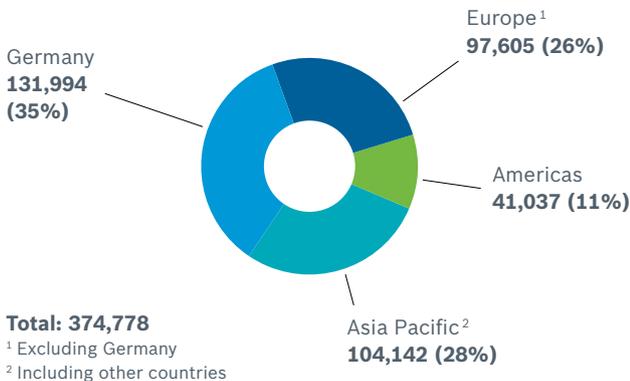
The packaging machinery business developed positively, with order intake increasing substantially. In a regional comparison, sales growth was especially positive in Asia Pacific. The strongest growth was in packaging machinery for the food and confectionery industries and in services.

G.08

Associates

Bosch Group 2015, as per Dec. 31, 2015

By region

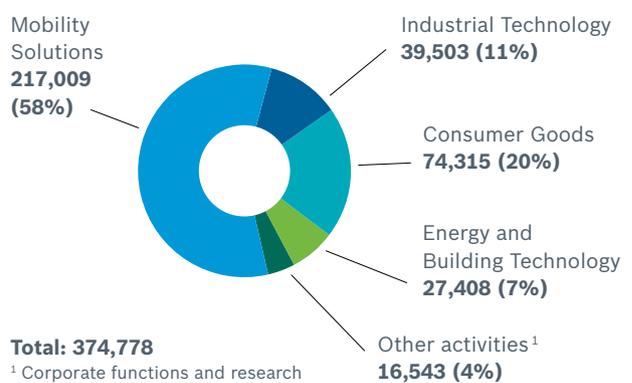


G.09

Associates

Bosch Group 2015, as per Dec. 31, 2015

By business sector



Consumer Goods exploiting market opportunities

Compared with the pro-forma figure for 2014 (including BSH Hausgeräte), sales in the Consumer Goods business sector increased by around 10 percent in nominal terms to 17.1 billion euros, or 5.7 percent after adjusting for exchange-rate effects. Power Tools and BSH Hausgeräte developed similarly favorably. Power Tools was particularly successful with its range of powerful cordless tools and with measuring devices. There was also strong demand for Dremel-brand tools and for accessories. Sales growth was encouraging in North America and western Europe, but less so in the major emerging markets of Brazil and Russia. BSH Hausgeräte benefited from sharply growing worldwide demand for household appliances. Based on its growth strategy, BSH Hausgeräte performed positively in nearly all regions of the world. Particular success was achieved with innovations such as a new range of kitchen stoves.

Energy and Building Technology gaining momentum

Sales of the Energy and Building Technology business sector, with the Security Systems and Thermotechnology divisions, increased far more strongly than in the previous year. Sales rose by 11 percent in nominal terms to 5.1 billion euros, or 7.2 percent allowing for exchange-rate effects. The improvement applied to both divisions. Security Systems increased its sales despite continuing difficulties in Russia, China, and Brazil, which affected the product business in particular. IP-based video systems and fire alarm systems were especially in demand. The sector's installation business and service solutions unit performed favorably.

In Thermotechnology, growth was supported by healthy sales performance in western and southern Europe. Growth improved in the important German market. There was particularly strong demand for wall-mounted gas appliances, water heaters, and floor-standing boil-

ers, with powerful growth in internet-enabled devices. Encouraging sales growth was generated by Bosch Energy and Building Solutions, with its services for improving energy efficiency in its focus markets of Germany, Italy, and India.

Headcount

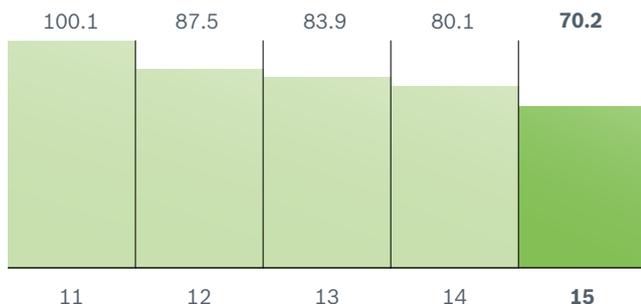
Substantial increase due to acquisitions

The total number of Bosch Group associates rose to 374,800 at the end of 2015, compared with 290,200 at the end of 2014. Most of the increase was due to the acquisition of Automotive Steering and BSH Hausgeräte, which resulted in 71,300 new associates. Another 1,800 associates were added due to other consolidations. This particularly concerns the newly acquired companies Climatec and Kliklok. These effects were countered above all by the disposal of the Drive and Control Technology division's large gearbox business, with around 1,100 associates. In all, 73,100 associates were added due to first-time consolidations, while 1,200 people ceased to be employed by the Bosch Group owing to deconsolidations and divestments. Furthermore, additional recruitments increased the number of associates by some 12,700 after allowing for personnel turnover; including associates recruited by Automotive Steering and BSH Hausgeräte in 2015, the figure was 16,400.

Regional shifts in the workforce structure compared with 2014 were small, despite substantial consolidation effects. At the end of 2015, around 229,600 associates were employed by the Bosch Group in Europe, compared with roughly 174,000 in 2014. Including Automotive Steering and BSH Hausgeräte, the 2014 figure was approximately 220,200 associates. In Germany, the number rose to about

G.10

Development of CO₂ emissions Bosch Group, 2011–2015

Metric tons of CO₂ per million euros value added¹

¹ Difference between total net sales (third-party sales, intercompany sales, internal deliveries) and planned cost of materials procured externally; for 2011 per million euros internally generated output

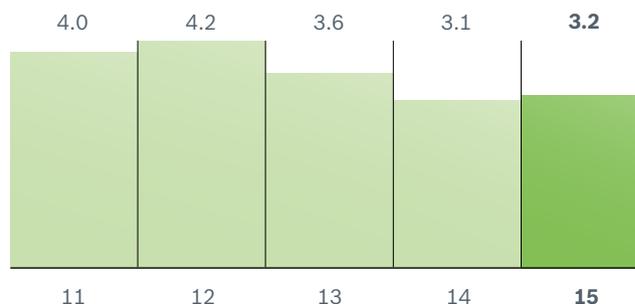
132,000 associates compared with some 105,400 in the previous year, slightly above the pro-forma figure for 2014 of approximately 128,500. In Asia Pacific, the number of associates increased to roughly 104,100 during this period, compared with roughly 82,300 (pro-forma figure roughly 99,300). In the Americas, the number rose to some 41,000 from 33,900 (pro-forma figure roughly 38,300). The trends in North America and South America ran counter to each other. The number of associates in North America rose by some 2,800, but fell slightly in South America.

Changes in the workforce structure by business sector were far more pronounced. The number of associates in the Mobility Solutions business sector increased to approximately 217,000, from roughly 190,400 at the end of 2014. Around 12,000 new jobs were created compared with the pro-forma figure of roughly 204,800 (which includes Automotive Steering). Some 58 percent of all associates now work in this business sector, compared with 66 percent in the previous year. The changes in Consumer Goods were even more remarkable, owing to the full consolidation of BSH Hausgeräte. At the end of 2015, this business sector employed around 74,300 associates, or 20 percent of Bosch's workforce, compared with around 17,100 or 6 percent in 2014. Compared with the pro-forma figure of approximately 70,300 for 2014, the number of associates in the Consumer Goods business sector rose by around 4,000. Besides the disposal of the large gearbox business, the decline in the number of associates in the Industrial Technology business sector by some 1,900 to roughly 39,500 is also due to jobs being shed in the Drive and Control Technology division. On the other hand, the number of associates in the Energy and Building Technology business sector increased by around 1,300 to approximately 27,400.

G.11

Development of occupational health and safety Bosch Group accident rate, 2011–2015

Accidents per million hours worked



Environmental protection, health and safety

Bosch has always considered environmental protection, resource conservation, and occupational health and safety to be very important. Moreover, Robert Bosch GmbH has been a member of the United Nations Global Compact since 2004, and is committed to its ten worldwide principles for responsible corporate governance. For us, "Invented for life" is also about reducing the environmental impact of our products and our production processes.

Further reduction of CO₂ emissions

We regard the reduction of CO₂ emissions as part of our social responsibility. It is our firm belief that, by using intelligent technological solutions, industry can make a significant contribution to climate protection. We will therefore continue to develop energy-saving measures. However, energy efficiency not only benefits the environment and society, but is also a key factor in making us more competitive.

Back in 2008, we set long-term targets for reducing CO₂ emissions from our locations relative to value added. These targets committed us to achieving a 20 percent reduction in carbon dioxide emissions by 2020 compared with 2007 levels (excluding Automotive Steering and BSH Hausgeräte). By 2015, we had already significantly exceeded this target, having achieved a reduction of some 26 percent. For Bosch, the lower energy consumption is already paying off financially. Between 2007 and 2014 alone, through in-house measures costing around 345 million euros, the company saved around 530 million euros in energy costs. In view of the improvements achieved so far, we are discussing a significantly higher long-term target for 2020 including Automotive Steering and BSH Hausgeräte, since we already achieved a roughly 30 percent reduction between 2007 and 2015 on this basis.

T.01

Most important items of the statement of income

FIGURES IN MILLIONS OF EUROS

	2015	2014
Sales revenue	70,607	48,951
Cost of sales	-46,675	-31,963
Gross profit	23,932	16,988
Distribution cost and administrative expenses	-13,787	-9,469
Research and development cost	-6,378	-4,959
Other operating income and expenses	864	214
Result from companies included at equity	-44	256
EBIT	4,587	3,030
Financial result	-98	345
Profit before tax	4,489	3,375
Income tax expense	-952	-714
Profit after tax		
from continuing operations	3,537	2,661
from discontinued operations		-24

At many Bosch locations, specially trained CO₂ coordinators are looking for ways to save energy. These experts and their teams analyze the energy consumption of production facilities and buildings, for example. Bosch also markets many of its energy-efficiency solutions to industrial customers, who can achieve energy savings of up to 30 percent.

We also focus on making our buildings eco-friendly. For example, the roofs of the new research campus in Renningen are covered with vegetation. In addition, all windows of the central building are triple-glazed and feature automatic solar protection. This combination means 20 to 30 percent less energy is needed to maintain pleasant temperatures in the building. In addition, photovoltaic systems at the site can save 200 metric tons of CO₂ emissions per year. We are conducting two pilot projects – concerning the value chain in the e-mobility sector and our future server structure for the internet of things – with the aim of making Bosch's energy use in these projects CO₂-neutral.

Furthermore, at the start of 2016 we set additional targets for waste avoidance and the economical use of water. Based on the success achieved so far and external benchmarks, our aim is a 2 percent year-on-year reduction in the relative volume of waste and relative water consumption each year between now and 2018.

Long-term target for occupational health and safety

After making steady progress in recent years, we defined a long-term target for occupational health and safety for the first time at the start of 2016. The target accident rate for the Bosch is now no more than 1.7 accidents for every million hours worked. We will step up our safety activities in order to achieve this goal. Safety is a key concern at all Bosch locations, alongside quality, delivery reliability, and efficiency improvements. The initiative also includes the "S-Basics" program. We plan to establish an intensive dialog between executives and associates. As well as methodological

improvements, we will also provide further training in management behavior relating to occupational health and safety.

The accident rate for 2015 including Automotive Steering and BSH Hausgeräte was 3.2 per million hours worked. Excluding Automotive Steering and BSH Hausgeräte, the figure for 2015 is 2.8 accidents, which is a further improvement compared with the previous year's figure of 3.1. The total number of accidents in the workplace in the 2015 business year was 2,126 including Automotive Steering and BSH Hausgeräte, or 1,532 excluding those consolidations, compared with 1,660 accidents in 2014.

Results of operations

Bosch Group EBIT significantly increased

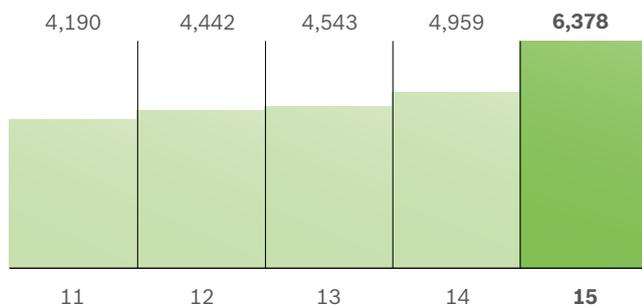
In 2015, we generated earnings before interest and taxes (EBIT) of 4.6 billion euros, compared with 3.0 billion euros in the previous year. Extraordinary effects with a positive effect on earnings and those with a negative effect canceled each other out. As a result, EBIT from operations (without extraordinary effects) comes to the same amount. This is equivalent to a margin of 6.5 percent. We thus considerably improved our earnings, and significantly exceeded our forecast. We had originally forecast only a slight improvement on the pro-forma 2014 figure for result (including Automotive Steering and BSH Hausgeräte), with an EBIT margin of just under 6 percent.

The positive extraordinary effects relate first of all to the first-time inclusion of Automotive Steering and BSH Hausgeräte in the Bosch Group's consolidated financial statements. Under IFRS, companies must be fully consolidated from the date when control commences. Shares previously held in a company must be remeasured at fair value as at the date when the remaining shares are acquired. The

G.12

Total research and development cost¹ Bosch Group, 2011–2015

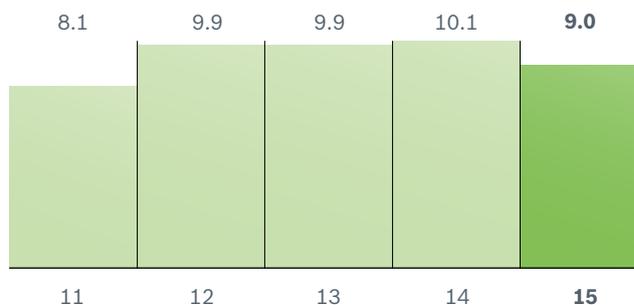
Figures in millions of euros



G.13

Total research and development cost¹ Bosch Group, 2011–2015

As a percentage of sales revenue

¹ Including development work charged directly to customers

full consolidation of Automotive Steering and BSH Hausgeräte thus resulted in one-off extraordinary income of 2.1 billion euros. The fair value of the shares previously held and the purchase price for the remaining shares must be allocated both to the existing assets and liabilities and to those recognized for the first time (purchase price allocation). The fair values form the basis for the allocation. Remeasurement of the assets results in additional depreciation and amortization, which is charged against extraordinary earnings. This resulted in net earnings of 1.3 billion euros in total.

These positive extraordinary earnings are counterbalanced by negative effects of the same amount. Roughly half this amount results from burdens in the Industrial Technology business sector. These relate to impairments on goodwill as a result of the unsatisfactory situation in the Drive and Control Technology division, as well as losses resulting from the sale of the large-gears business. The other half of this amount is due to additions to provisions in connection with legal risks.

Compared with the figure for total sales revenue, cost of sales increased by 0.8 percentage points year on year. There was an equivalent drop in gross profit in relation to sales. Disregarding the first-time consolidation of Automotive Steering and BSH Hausgeräte, gross margin is slightly better than in the previous year. Distribution and administrative cost increased at a slightly higher rate than sales. Without the above-mentioned first-time consolidation, however, its share of sales fell by more than one percentage point.

Considerable changes are evident in research and development costs. They came to approximately 6.4 billion euros in 2015, compared with 5 billion euros in the previous year. They include work amounting to some 1.3 billion euros charged to third parties.

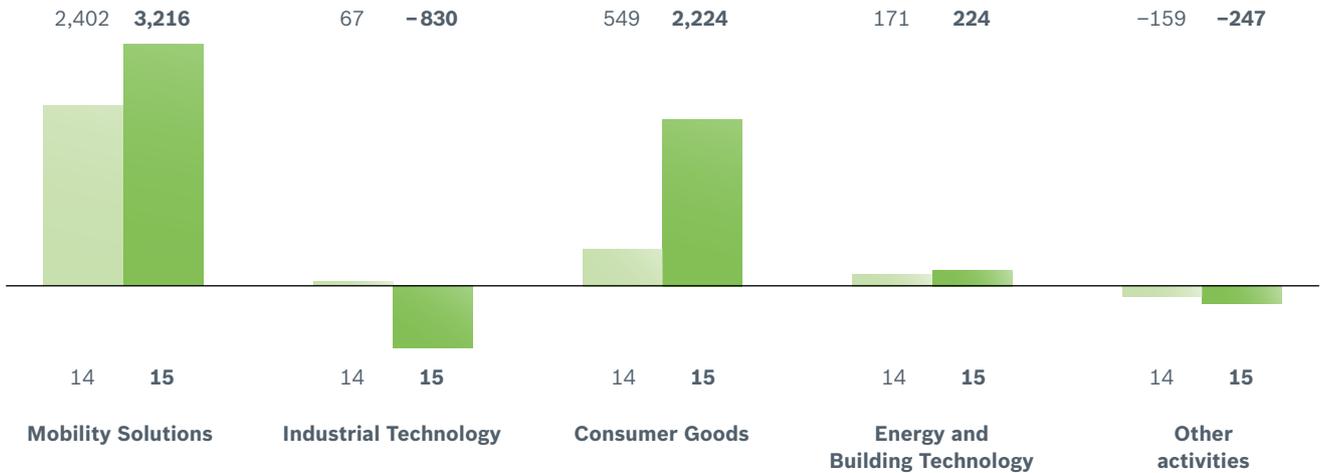
Due to the first-time consolidation of Automotive Steering and BSH Hausgeräte, the R&D cost ratio fell from 10.1 percent to 9 percent, despite an absolute increase in research and development cost. If Automotive Steering and BSH Hausgeräte had been included in the research and development costs for 2014, they would have come to around 5.6 billion euros, and the R&D cost ratio would also have been roughly 9 percent. The Mobility Solutions business sector accounted for 75 percent of development costs after 82 percent the previous year, Industrial Technology 6 percent compared with 8 percent the previous year, and Consumer Goods and Energy and Building Technology around 15 percent and 4 percent respectively (both 5 percent the previous year). Above all, the increase in other operating expenses and income reflects the earnings arising from the full consolidation of Automotive Steering and BSH Hausgeräte. These are offset by the extraordinary burdens mentioned above.

Profit before tax totals 4.5 billion euros, corresponding to a margin of 6.4 percent. The financial result, however, is negative and down significantly on the previous year. This is mainly due to lower net income from securities, as well as higher exchange rate-related losses. We thus report a result after tax of 3.5 billion euros, compared with 2.7 billion euros in the previous year.

Our internal control parameter, the operating value contribution, is calculated only for the consolidated group used in internal reporting for 2015. The figures for the whole of 2014 were calculated on a like-for-like basis. The operating value contribution fell to around 250 million euros in 2015, from the roughly 500 million-euro comparable figure for 2014. Compared with EBIT, the operating value contribution does not contain the extraordinary positive earnings arising from the full consolidation of Automotive Steering and BSH Hausgeräte. Nor does it include the goodwill impairments at Drive and Control Technology.

G.14

EBIT by business sector
Bosch Group, 2014–2015
 Figures in millions of euros



The fundamental difference between EBIT and the operating value contribution is the imputed 3.4 billion-euro (comparable previous-year figure: 3.1 billion euros) cost of capital, which reduces the operating value contribution compared with EBIT. Other differences in depreciation and amortization and other items total around 0.2 billion euros on the current basis (figure for the previous year on a comparable basis: approximately 0.1 billion euros).

Significant differences by segment

Of the business sectors, Mobility Solutions achieved EBIT of 3.2 billion euros and a margin of 7.7 percent, including extraordinary effects accruing to this business sector. In operational terms, the business sector achieved EBIT of 3.5 billion euros and a margin of 8.4 percent of sales. The business sector therefore significantly improved on the pro-forma figure (including Automotive Steering) of around 7 percent for 2014. This reflects a successful operational performance in most divisions.

The Industrial Technology business sector discloses a total loss of 830 million euros due to the difficult business situation in Drive and Control Technology, to the negative effects of necessary restructuring measures, and especially to substantial impairments and the losses in connection with the sale of its large-gears business. The business sector’s operating loss excluding one-off extraordinary effects amounted to around 100 million euros. The Consumer Goods business sector achieved EBIT of approximately 2.2 billion euros including extraordinary effects accruing to the business sector; in operational terms as well, it achieved a good result with EBIT of 1.2 billion euros and an operating EBIT margin of 7.2 percent. The margin improved compared with the pro-forma figure of just under 7 percent for 2014. The Energy and Building Technology business sector increased its earnings power, with EBIT of around 220 million euros compared with

170 million euros in the previous year, and a margin of 4.4 percent versus 3.7 percent in the previous year.

Net assets and financial position

Balance sheet impacted by acquisitions

The acquisitions of former steering systems and household appliances joint ventures had a significant impact on the balance sheet. Under the equity method applied until 2014, these joint ventures were reported on the assets side of the balance sheet under non-current assets. Full consolidation in 2015 resulted in the assumption of individual assets and liabilities. The effects of remeasurement are added to this.

At the balance-sheet date, the balance-sheet total of the Bosch Group had risen by approximately 25 percent to 77.3 billion euros compared with 61.9 billion euros in the previous year. The main reason for this increase is the full consolidation of Automotive Steering and BSH Hausgeräte. In addition, there was a significant increase in the working budget for inventories and receivables. This is above all the result of higher sales. In addition, the non-current assets show the effect of the greater value of property, plant, and equipment as a result of the further increases in capital expenditure. Under the new structure for 2015 we report a very sound equity ratio of just under 45 percent, compared with around 48 percent in the previous year.

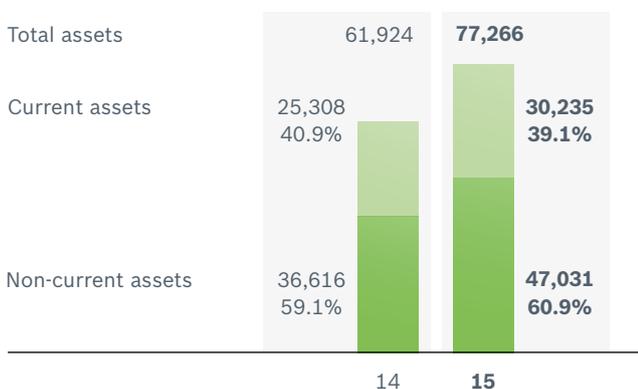
Despite substantial cash outflows following the acquisition of Automotive Steering and BSH Hausgeräte, liquidity as reported in the statement of financial position stood at 14.4 billion euros on the balance-sheet date, compared with 15.6 billion euros in the previous year. Apart from cash and cash equivalents, liquidity as per the

G.15

Structure of the statement of financial position Bosch Group, 2014–2015

Assets

Figures in millions of euros and as a percentage of total net assets

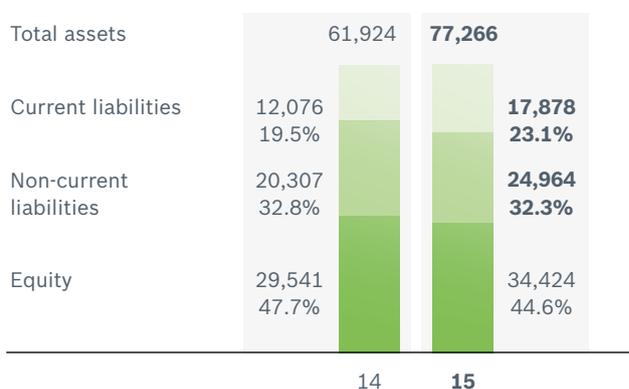


G.16

Structure of the statement of financial position Bosch Group, 2014–2015

Equity and liabilities

Figures in millions of euros and as a percentage of total net assets



statement of financial position includes marketable securities and bank balances with a term of more than 90 days.

The liabilities side was also significantly impacted by the full consolidation of Automotive Steering and BSH Hausgeräte. Other changes in current liabilities are mainly sales-related. The financing structure remains very sound. Current liabilities account for 23.1 percent. Standard & Poor's also reaffirmed Robert Bosch GmbH's long-term rating of AA- (with a "stable" outlook). This also benefits the subsidiary BSH Hausgeräte GmbH, which has a similar rating. Financial liabilities include bonds with a total volume of around 5 billion euros. The bond interest rates are between 1.543 percent and 5.125 percent. No new bonds were issued in the 2015 financial year. The bonds' average maturity and average coupon declined slightly compared with the previous year, mainly due to the first-time consolidation of BSH Hausgeräte and Automotive Steering. Most of the remaining financial liabilities are denominated in euros.

Significant rise in capital expenditure

Bosch Group capital expenditure amounted to 4.1 billion euros in 2015, compared with 2.6 billion euros in the previous year. The investment ratio rose to 5.7 percent of sales. As at the balance-sheet date, existing investment commitments as a result of orders already placed totaled roughly 630 million euros. Thanks to our very good liquidity position, we have ample financial resources at our disposal.

Broken down by business sector, total investment in the Mobility Solutions business sector rose to 3.1 billion euros, compared with 2.2 billion euros in the previous year. This sharp rise is due not only to the full consolidation of Automotive Steering, but also to higher capital expenditure requirements, particularly in diesel technology, gasoline direct injection, driver assistance systems, electrical drives,

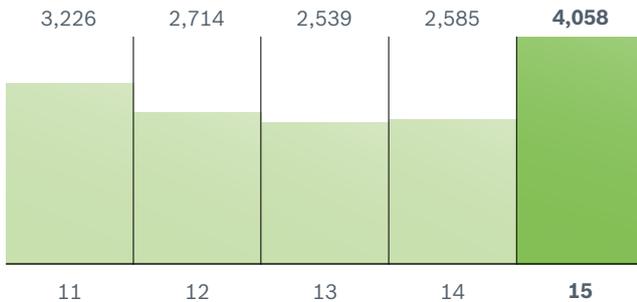
and infotainment systems, as well as in expanding capacity for semiconductors, sensors, and control units. In Industrial Technology, we invested some 140 million euros, after 170 million euros the previous year. In the Consumer Goods business sector, capital expenditure rose to some 650 million euros compared with 130 million euros in the previous year, due to the full consolidation of BSH Hausgeräte. Here too, the investment ratio increased owing to the expansion of capacity at Power Tools for accessories and at BSH Hausgeräte for dishwashers, cookers, and freezers. In Energy and Building Technology, capital investment rose to approximately 100 million euros, compared with 70 million euros the previous year. This mainly concerned cost-reduction and product-renewal projects at manufacturing, engineering, and sales locations.

We invested around 2.5 billion euros in our European locations, compared with 1.7 billion euros in the previous year. Capital expenditure in Germany was roughly 1.4 billion euros, compared with 1.1 billion euros the previous year. Focal points included the expansion of capacity for semiconductors and sensors, and new buildings at the Reutlingen location as well as in the areas of gasoline direct injection systems and diesel technology. We also completed the new research campus in Renningen, not far from the company's headquarters. Another large-scale, multi-year project is the expansion of the main distribution center for vehicle spare parts in Karlsruhe.

A major investment made in Europe outside Germany is the new automotive technology plant in Samara, Russia. However, we are diluting our plans somewhat in view of the current market situation. In Bursa, Turkey, we expanded our manufacturing operations for high-pressure injectors for diesel vehicles. We invested around 300 million euros in this in total between 2013 and 2015. In Hungary, we continued to expand the engineering center in Budapest, and at our location in

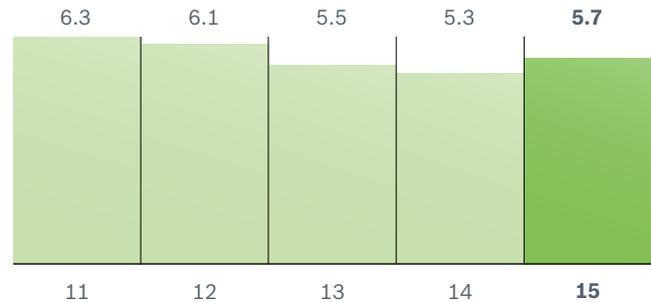
G.17

Capital expenditure
Bosch Group, 2011–2015
 Figures in millions of euros



G.18

Capital expenditure
Bosch Group, 2011–2015
 As a percentage of sales revenue



Jihlava, Czech Republic, we expanded our diesel technology manufacturing operations. BSH Hausgeräte is expanding production in Poland. In 2015, the company acquired a factory site from Fagor Mastercook S. A. in Wrocław, Poland, after the latter became insolvent. Cooking and refrigeration products will be manufactured there.

We invested around 1.1 billion euros in Asia Pacific, compared with 620 million euros in the previous year. In particular, we expanded locations where we produce diesel and gasoline direct injection systems, above all in China. We also set up a new diesel location in Qingdao, China. BSH Hausgeräte laid the foundation stone for its first dishwasher factory in China. After a construction phase lasting approximately two years, the new factory is scheduled to commence production in early 2018. The planned volume of investment is around 215 million euros over the next five years. In Ho Chi Minh City, Vietnam, we began the construction of a new engineering center. Another focal point was again India, where we invested around 140 million euros in the expansion of existing manufacturing facilities and further expansion of the software and engineering center at the Bengaluru location.

In North and South America, we invested some 460 million euros, compared with 220 million euros in 2013. Most of this activity in the Americas concerned the Mobility Solutions business sector. It included the expansion of the engineering location in Plymouth, MI (USA), the manufacturing facility in Charleston, SC (USA), and factories in Toluca, Juárez, and Aguascalientes in Mexico. In the Thermotechnology division, a new plant for instantaneous gas water heaters went into operation in 2015 in Tepotzotlán, near Mexico City.

Liquidity

Strong financial position and healthy liquidity situation

Despite the full acquisitions of the former automotive steering systems and household appliances joint ventures, the Bosch Group continues to have a strong financial position. In 2015, cash flow was 6.8 billion euros or 9.7 percent of sales, against comparative prior-year figures of 4.9 billion euros or 9.9 percent of sales. This increase also reflects the substantial improvement in result.

Liquidity at year-end as per the consolidated statement of cash flows (cash and cash equivalents) stood at 3.7 billion euros, compared with 5.5 billion euros the previous year. The decline was largely due to the acquisition of all shares in Automotive Steering and BSH Hausgeräte. The good earnings situation has had a stabilizing effect. In addition, the financing available to Robert Bosch GmbH under its euro medium-term note and commercial paper programs totaled 4.25 billion euros and 2 billion U.S. dollars.

Cash inflows from operating activities amounted to 6.0 billion euros, roughly 2.1 billion euros higher than in the previous year. Higher cash flow is one reason for this. However, this is offset by an increase in commitments in the working budget. Cash outflows from investing activities were 4.4 billion euros higher than in the previous year. Reasons include the substantial increase in cash outflows due to acquisitions, investments in participating interests, and investments in property, plant, and equipment. There was a cash outflow of 0.7 billion euros relating to financing activities in 2015, due to the repayment of financial liabilities and dividend payments. This compares with a net cash inflow in the previous year of 0.5 billion euros, which essentially resulted from the issuance of bonds.

The Bosch Group has a central financial and currency management system. This is designed to control payment flows to optimum effect and limit the risks of currency exposures at the Bosch Group level.

T.02

Bosch Group, statement of cash flows
 FIGURES IN MILLIONS OF EUROS

	2015	2014
Cash flow	6,835	4,866
as a percentage of sales	9.7	9.9
Liquidity at the beginning of the year (Jan. 1)	5,513	3,799
Cash flows from operating activities	+5,959	+3,835
Cash flows from investing activities	-7,204	-2,772
Cash flows from financing activities	-655	+470
Other activities	+94	+181
Liquidity at the end of the year (Dec. 31)	3,707	5,513

Central financial management also manages our borrowings and investments. Our investment strategy is aimed at broad diversification of shares and interest-bearing securities.

Outlook

Only moderate growth expected in 2016

We expect global economic growth to remain subdued in 2016. A major reason is the continued weakness of growth in emerging markets. We expect global economic output to rise by around 2.5 percent. Growth will therefore remain similar to the 2015 level, and once again well below the long-term trend of 3.3 percent. The advanced economies are likely to achieve growth of just under 2 percent. In the United States, we expect slightly slower momentum compared with 2015, partly because economic risks have recently increased. In view of the continuing recession in Brazil, we do not expect any appreciable increase in the pace of growth in the Americas as a whole.

In Europe, we expect the European Union to achieve growth of 1.6 percent in 2016, about the same as in 2015. The global economic slowdown is especially a burden for the major export nations. At 1.5 percent, growth in Germany will likely be lower than in 2015. But in Spain and northern Europe as well, the pace of growth is expected to let up slightly. Consumption will have a stabilizing effect, since this will likely expand slightly due to the considerable number of refugees coming to western Europe. Growth in Europe as a whole in 2016 will be braked by the continuing difficulties in Russia and Turkey, and is expected to be somewhat weaker than in 2015.

The pace of growth in emerging markets will again exceed that of the advanced economies in 2016. However, with emerging markets growing around 3.5 percent only, we merely expect stabilization rather than a trend reversal. The slower pace of growth in China is

a key factor in this regard. At 6.3 percent, its growth rate in 2016 is likely to be below the 2015 figure.

There are substantial risks to economic development in 2016 in view of the continuing euro crisis, growing geopolitical tensions, and structural deficits in emerging markets, particularly in countries heavily dependent on commodities. These risks contrast with the positive effects of low oil prices, which help stabilize developed economies in particular.

In our core markets, we expect production figures for passenger cars and commercial vehicles to grow by just under 2 percent to some 93 million vehicles. However, production of heavy trucks is expected to fall further, to 2.7 million units. Moderate growth is anticipated for all three major economic regions. In Asia Pacific, we expect only India and ASEAN to post further strong growth. In China, we expect automobile production to increase by 3 to 5 percent.

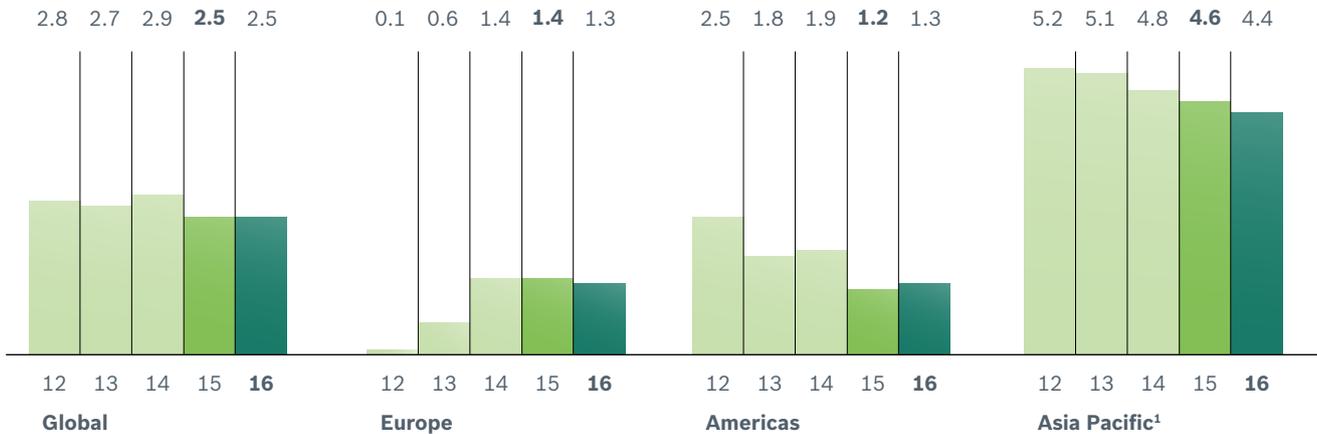
In mechanical engineering as a whole, we expect a slight drop in global production, following an only slight rise in 2015. Positive stimuli will likely come from Asia, while the markets in the Americas and Europe are expected to contract. The mobile applications market segment is likely to deliver a much weaker performance than the market as a whole. The Drive and Control Technology division is therefore expected to lag behind the overall market trend.

We forecast a slight global increase in private demand to around 2.5 percent. Especially in the southern European markets which are important for our business, stable growth is expected for 2016. In addition, low oil prices will increase purchasing power. In global construction activity – another important market – we expect slightly stronger growth in 2016 than in the previous year, at roughly 3.8 percent. Most stimuli here are expected to come from the euro zone.

G.19

Regional economic growth 2012–2016
Real GDP, percentage change on previous year
 Percentage figures

Forecast



¹ Including other countries

Sales growth and increase in profitability

Against the backdrop of a still subdued economic environment, we expect sales growth for the Bosch Group to remain within a range of 3 to 5 percent in the 2016 financial year. This does not take exchange-rate effects into account. The Mobility Solutions and Consumer Goods business sectors are expected to achieve higher sales growth than the company as a whole. The situation for the Industrial Technology business sector remains difficult.

We currently expect the Bosch Group to post an EBIT margin from operations that is roughly on a par with the previous year. Productivity gains and cost savings are countered by the negative effects of reorganizing the Drive and Control Technology division, costs for the integration of Automotive Steering, and the spin-off of Starter Motors and Generators. This forecast does not take account of the earnings impact of higher depreciation and amortization of roughly 500 million euros in total arising from the remeasurement of assets at Automotive Steering and BSH Hausgeräte. This applies equally to the Mobility Solutions and Consumer Goods business sectors, which are again likely to achieve the strongest growth. We expect performance as measured by the internal operating value contribution indicator to improve significantly.

Report on opportunities and risks

Opportunities

Overall, we continue to see good growth opportunities for the Bosch Group, reflected in a long-term annual sales growth target of 8 percent on average. Reasons for this include our favorable position as a result of a broad sectoral presence, our high level of innovation, and our strong international presence. Special strategic opportunities will arise as a result of the growing importance of energy efficiency (and hence resource conservation), electrification, automation, the further expansion of our presence in emerging markets, and increased connectivity, especially through the internet of things. For further explanations, see the “Outlook for the Bosch Group” section, which describes specific opportunities in more detail and the strategies that we are developing in response.

Risks

Comprehensive risk management system

The Bosch Group’s risk management system is part of strategic and operations control. From strategic planning at the group level through medium-term planning by the operating units to our operational controlling, we consistently use risk management tools. At all levels of risk management, a key element is defining and implementing measures derived from the risk management system. The board of management of Robert Bosch GmbH – with support from the corporate departments – is responsible for risks of group-wide importance. The executive management of

the divisions and the presidents of the regional organizations are responsible for identifying risks at the point of origin and for taking any necessary measures.

Strategic risks relate mainly to the way markets, competitors, and suppliers develop, to innovations in technologies and business models, to changes in the political, social, and economic environment, to acquisitions, and to the Bosch brand. We therefore constantly monitor developments at our main competitors, customers, and suppliers. We also carry out business-field, competitor, and scenario analyses. In addition, we prepare forward-looking assessments of planned positions of the Bosch Group in the technological fields and business models relevant to our company. Comprehensive strategic assessments of potential projects help control risks associated with acquisitions. To protect our brand, we carry out proactive reputation management, analyze social media, and carry out activities of our own in this area.

As part of operational controlling, an overview of all economically relevant transactions is compiled every month on the basis of a comprehensive reporting system, along with a list of major opportunities and risks. At meetings of committees such as the foreign exchange, raw materials, and investment committees, specific risks are examined on a regular basis. We have a group-wide liquidity planning system and permanently monitor our financial resources.

Overall risk assessment

We are not currently aware of any risks, beyond the market-related risks mentioned in the outlook above, the risks of the business sectors listed in this report, and litigation risks, which could materially affect the net assets, financial position, and results of operations of the Bosch Group in 2016. Nor does the Bosch Group have any risk exposures that could jeopardize the group's continued existence as a going concern. An overall assessment of all risks confirms that our forecast is plausible. There are no significant differences from the previous year that would affect this overall assessment.

Risks affecting the business sectors

We analyze the medium-term risks for the business sectors in the risk areas of market, customers, competition, purchasing, technology, value-creation model, and business environment. The risks for our company are predominantly in the areas of market, customers, technology, and the way the competition develops. We assess any medium-term risks that we identify. An important criterion here is the product of the estimated economic impact and the estimated probability of occurrence.

Probability of occurrence	Description
Low	Up to 17 percent
Medium	Up to 33 percent
High	Up to 50 percent

Risks with a probability of occurrence of at least 50 percent are considered in our annual or interim forecasts. The assessment is based on our current planning.

We categorize these risks' economic impact as low, medium, high, and very high in terms of their relation to the anticipated accumulated EBIT from operations of the respective business sector over a medium-term horizon of four years.

Degree of impact	Definition of impact
Low	Minor impact on the profitability of the business sector concerned
Medium	Some negative impact on the profitability of the business sector concerned
High	Considerable negative impact on the profitability of the business sector concerned
Very high	Damaging negative impact on the profitability and operations of the business sector concerned

Particular risks, that is to say, risks with at least a medium economic impact and probability of occurrence, relate in the case of the Mobility Solutions business sector to current discussions regarding the future viability of diesel engines. This could lead to a fall in demand for diesel injection systems and components. Furthermore, digital transformation processes pose a not immaterial risk for current business models and distribution channels in the aftermarket segment. We see a further risk in growing price pressure on the Chinese market.

In addition, a large number of individual risks exist, each with low economic impact and low probability of occurrence. These individual risks relate above all to achieving target market shares and delivery shares, price trends, market changes due to new business models, technologies, competitors, and environmental aspects. We counter these risks through extensive planning and tracking of results in acquiring delivery contracts, a broad customer and product portfolio, intensive market surveillance, and global trend scouting.

Added to this, extensive warranty exposure presents a fundamental risk. Due to automakers' extensive platform and modular-design strategies, quality issues relating to individual products can result in large-scale recalls. We counter these risks with continuous improvement of our quality management system.

In the Industrial Technology business sector, the Drive and Control Technology division is exposed to high and medium risks with at least a medium probability of occurrence. These relate to the particular volatility of markets, with increased price erosion and the possible entry of new competitors, especially from China and the United States. Furthermore, growing standardization in the field of hydraulic components increases the risk that these items may become technologically indistinguishable. We counter these risks with a product portfolio that is tailored specifically to the needs of the market and a comprehensive restructuring program.

In the Consumer Goods business sector, in which BSH Hausgeräte has been included for the first time, particular risks concern above all the threats emerging from the growing importance of sales over the internet. Measures include the consistent expansion of our own internet activities.

In the Energy and Building Technology business sector, we should mention in particular the risks of price erosion due to increasing competition from Chinese suppliers and sales risks due to the high pace of innovation in IP technologies. In addition, there are risks associated with a potential trend towards low-price products, and the proliferation of internet-based business models. Measures mainly concern the increased development of IP-enabled products and products for low-price market segments. We are also increasing productivity in the services business.

Due to our broad regional and sectoral presence, medium-term strategic and operating risks are on the whole broadly diversified. Our risk management system clearly presents the existing risks affecting each of the business sectors. By implementing deliberate measures, we limit both the probability of occurrence and the economic impact of the risks. Overall, the analysis of opportunities and risks shows that we

operate in an environment rich in opportunities. Accordingly, there are currently no foreseeable sustained or severe threats to our profitability.

IT risks: We have put in place comprehensive measures, valid throughout the company, to provide organizational and technical protection against all types of data loss, manipulation, and theft. With our broad-based and well trained IT security and data-protection organization, we respond to constantly growing demands in the area of cyber-crime, protection of intellectual property and sabotage risks, as well as increasing awareness of data protection in social networks. For our solutions with connected products in the internet of things, we apply an integrated security concept that we continually update using state-of-the-art technology, and verify its effectiveness with extensive security tests (penetration tests). We ensure high availability of IT systems through redundant systems that run independently of location.

Legal risks, compliance: There are no apparent legal risks that could materially impair the net assets, financial position, or results of operations of the Bosch Group in the 2016 financial year. This includes all risks resulting from ongoing or imminent litigation and compliance matters. The principle of legality is an integral part of Bosch's values. We deal rigorously with violations of applicable laws or the Bosch Code of Business Conduct. Reinforcing compliance and anchoring compliance within the organization is the task of our global compliance organization. Worldwide classroom-based programs, web-based training courses, and a great number of publications help ensure that there is group-wide awareness of the need to comply with existing laws, rules, and regulations. In addition, a compliance dialog between executives and associates was established worldwide in 2015, with the aim of moving from rules-based to values-based compliance.

At the start of 2015 we also set up a dedicated corporate department for compliance management. The chief compliance officer responsible for this department coordinates the compliance organization and reports directly to the board of management or, if necessary, directly to the chairman of the supervisory board. Functionally, the compliance officers in the regions and divisions report to the chief

compliance officer. Risk analyses are also performed on a regular basis. Based on these, measures are defined and taken to minimize the compliance risks that have been identified and confirmed.

Since 2010, the EU Commission and other antitrust authorities have been investigating a number of automotive suppliers for alleged anticompetitive behavior. The Bosch Group is also affected by these antitrust investigations. The company continues to cooperate fully with the authorities in their investigations into these allegations. In 2015, Bosch reached a settlement with the U.S. antitrust authority, the Department of Justice. Talks with the EU Commission have now reached an advanced stage. Risks for Bosch present themselves in the currently still ongoing official investigations as well as in potential civil-law claims. Since fall 2015, various authorities have raised allegations against Volkswagen with respect to the manipulation of the software contained in engine control units. In this context, civil actions in the U.S. have been grouped together into a class action, which also names Bosch as a defendant. As one of the world's biggest suppliers of fuel injection technology, Bosch takes these allegations very seriously.

Immediately after learning of the allegations, Bosch launched its own internal investigation. As this investigation is still ongoing, there are no final results available yet. There are no indications of criminally relevant action by the management bodies that would require adjustment or restatement of the financial statements of previous years. In connection with the circumstances surrounding the manipulation, the company is in contact with many investigating authorities both in Germany and internationally. Risks for Bosch thus exist in the official investigations still being carried out, above all in the U.S. and Germany, as well as in the form of civil-law proceedings, including class actions in the United States. On the basis of the facts relating to antitrust proceedings and engine control units that were available when the financial statements were prepared, and that the board of management has assessed, the board of management believes that sufficient precautions have been taken in the form of provisions for legal risks. For the various legal risks outlined above, provisions amounting to some 750 million euros have been set up.

Financial risks: The operating business of the Bosch Group is affected by fluctuations in exchange and interest rates. The aim of business policy is to limit these risks. Our strategy of maintaining a strong global presence with local production and worldwide purchasing activities generally reduces currency risks. A foreign exchange balance plan showing net positions per foreign currency is used as the basis for controlling currency risks. If necessary, these risks are hedged through centralized hedging transactions. Internal regulations and guidelines set down a mandatory framework and define responsibilities relating to payment transactions, investments, and hedging activities. According to our regulations, financial instruments such as forward transactions and interest swaps may only be used in connection with the operating business, financial investments, or financing transactions; speculative transactions are not allowed. Hedging transactions are entered into solely via banks whose creditworthiness is good. Their credit ratings are constantly monitored, and limits are adjusted accordingly.

We have extensive financial assets. These are subject to interest-rate and exchange-rate risks. We control these risks by means of an investment process geared to our financial exposure. The objective is to secure appropriate, risk-adjusted returns on invested capital. Here, we endeavor to spread our investments as widely as possible. A limit system is used to closely monitor investment risk. Prescribed risk limits for the specific investment categories limit the potential loss. The impact of changes in interest rates on borrowed funds is sharply limited over the short and medium term by balancing the maturities of financial liabilities. Changes in financial assets and liabilities are monitored on an ongoing basis. We identify liquidity risks as part of our liquidity planning. Thanks to our good credit rating and existing financing arrangements, we have good access to the capital markets.