Experiencing

quality *of life*

Annual report **2014** – magazine

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Quality *of life*

We have made it our goal to create products that spark enthusiasm, improve quality of life, and conserve natural resources. Join us as we explore our customers' and associates' different living conditions and cultures in various regions of the world. Their personal stories show how people have enhanced their quality of life – on their own initiative, or together with the help of family and friends. We also play a role in this – with our products and services, but most importantly thanks to our associates. Their commitment and ideas are the source of technology that is "Invented for life," and that has a positive impact on individuals and society as a whole.

Quality of life means different things to different people. Even so, certain topics are clearly fundamental for everyone. As a part of the Better Life Index, the Organization for Economic Cooperation and Development (OECD) has identified eleven areas that are key to quality of life, including health, safety, education, environment, community, housing, and jobs. In this magazine, these topics are flagged by symbols. The stories show where Bosch technology that is "Invented for life" is helping improve quality of life. Perhaps you'll recognize how we have improved yours.

Healthcare

"I have to be able to see every thread in a sari to make sure it's perfect. Without good eyesight, I might as well close up shop."

Basepere Lakshminaranaya, general manager of a sari-weaving mill in India

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Education

Many Bosch apprentices contribute their knowledge, give children a helping hand, and in this way have the opportunity to improve their own social skills.

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Safety

"The process ends with a further thorough check for quality and safety. As many as ten camera systems test the vials for scratches on the glass, particles in the liquid, and properly fitted caps – and that's not all."

Dr. Johannes Rauschnabel, Bosch pharmaceuticals expert

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Jobs

"Now that I have a secure job, it's easier for me to plan ahead."

John Ndungo, the first associate of Bosch Thermotechnology Kenya

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Environment

One important goal is creating livable cities without excessive traffic noise and particulate matter.

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Community

"With the solar mirrors, we've created something very special – and it has brought the whole town closer together."

Knut Jacobsen, manager of Rjukan Hytteby tourist cabins, Norway

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Living

One of the main advantages of the Home Connect app is the remote control function that can be used on the go. "I also feel more secure knowing exactly which appliance is currently on or off."

Claudia Häpp, Home Connect project manager

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Driver assistance systems

Staying on track *Tokyo-style*

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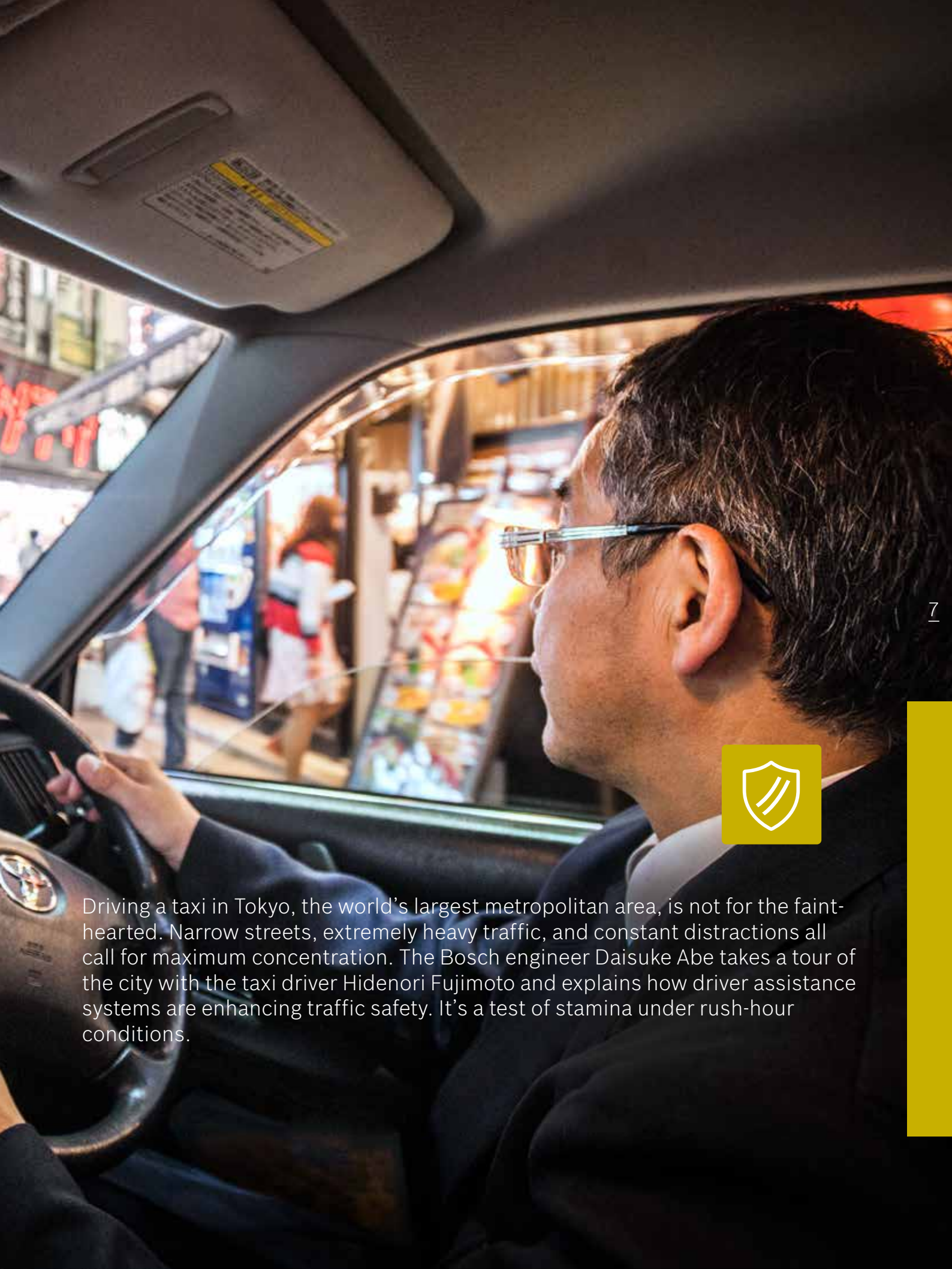

Driving a taxi in Tokyo, the world's largest metropolitan area, is not for the faint-hearted. Narrow streets, extremely heavy traffic, and constant distractions all call for maximum concentration. The Bosch engineer Daisuke Abe takes a tour of the city with the taxi driver Hidenori Fujimoto and explains how driver assistance systems are enhancing traffic safety. It's a test of stamina under rush-hour conditions.

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driver-assistance-systems

25 times per second, a microcomputer monitors the signals sent out by the ESP® sensors and calculates whether the driver's steering commands correspond to the actual direction of travel.

"Driving convenience is closely linked to assistance systems, as they help drivers in critical situations in which they are no longer able to react quickly enough to prevent a collision."

Daisuke Abe, expert for driver assistance systems in Japan

30 to 200

kph: the speed range within which drivers are supported by standard ACC adaptive cruise control

*“The hardest part of my job is to **constantly stay alert.**”*

Hidenori Fujimoto, taxi driver

Rush hour in Tokyo is always nerve-wracking. Even for someone who is not driving but observing the urban spectacle from the back seat of a taxi. The glow from the neon signs bathes the driver’s face in ever-changing colors, though the non-stop flashing of the lights seems pleasantly softened from inside the car. The same is true of the constant din of the traffic, which blends with the music emanating from stores’ loudspeakers and the cuckoo-like warnings from the crossing signals. Taxi trips in the world’s largest metropolitan area are a multiple assault on the senses, and a mesmerizing adventure for any foreigner. For Hidenori Fujimoto, though, they are his challenging everyday work environment. The main thing is not to get distracted. In this traffic maelstrom, his orange taxi with the little crown on the radiator grill seems like a pinball in one of the city’s many *pachinko* parlors – with the significant difference that he must on no account bump into other objects. Getting around safely takes a certain inner composure. The driver only gets truly agitated when he is forced to wait at a taxi stand for a while. After all, he earns his living by keeping his car constantly on the move. It is the city’s contagious rhythm that has had an impact on him. “It’s impossible not to be affected by Tokyo’s pace,” Fujimoto says as he starts his shift at dusk.

His passenger, Daisuke Abe, the general manager of the driver assistance engineering department at Bosch Japan, got in at Bosch headquarters in Shibuya in order to experience for himself all the challenges a taxi driver faces in this city. Going back in time a couple of hours, we find Abe behind the wheel of a car on one of the beltways skirting the center of Tokyo. Unlike the taxi, Abe’s VW Golf, a demonstration vehicle, is equipped with all key driver assistance systems. In the increasing turmoil the Golf experiences approaching Tokyo’s inner districts, one particular system, the lane-change assist, comes in handy more than once.

In the rapidly flowing traffic, Abe can trust in the car’s camera-controlled lane-keeping function, which ensures he’ll never unintentionally drift out of his lane. Especially in monotonous situations, this function enhances safety for everyone on the road. With 37 million people living within a radius of 50 kilometers, Tokyo is coming up against the limits of mobility. Nowadays, it’s not only parked cars that must be stacked on top of one another, but also entire roads. Prospective car buyers in Tokyo can only register their vehicle if they can prove they have their own parking spot.

ABS for China

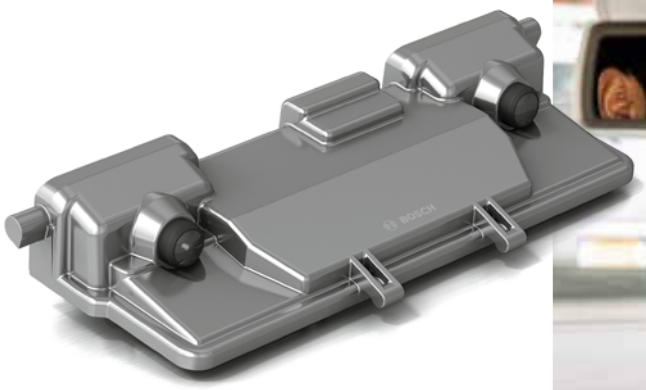
They're practical, agile, and roomy. But the main reason minibuses are such a popular means of transport in China is because they offer all this for comparatively little money. The serious accidents involving them are mounting, though. It's no wonder: after all, their cheap price usually comes at the cost of safety. And the vehicles – which are used commercially and as family cars – are often laden to the gills, making them difficult to control in critical situations. The Chinese government wants to tackle the growing problem with new legislation, and make certain safety systems mandatory in the future. ABS has been a legal requirement in all new minibuses since January 2015. With three-channel ABS, Bosch offers a solution that enables enhanced safety at a bearable price. Designed specifically for Asian minibus manufacturers, this antilock braking system makes do with three instead of four wheel-speed sensors. These measure how fast the wheels are spinning and recognize when one is about to lock, at which point ABS intervenes. To ensure that the safety mechanism works with three wheel-speed sensors instead of four, the system includes software that was specially developed for this segment. In this way, the solution for this market's specific demands can be offered at a competitive price.

Daisuke Abe, general manager, driver assistance engineering department, Bosch Japan.

Emergency braking system: A brief moment of inattentiveness or distraction is often all it takes to cause a rear-end collision. At 80 kph, a distracted driver who takes his eyes off the road for only a second travels

more than 22 meters.

In critical situations, a driver often only has a few fractions of a second to take evasive action in order to avoid a rear-end collision.



Stereo-video cameras enable a number of functions that make driving safer and more comfortable. These include automatic emergency braking, traffic jam assistant, intelligent headlight control, lane departure warning system and lane keeping assistant, traffic sign recognition, and, in the future, a construction zone assistant. This ability to completely register the vehicle's surroundings in three dimensions is also the basis for a future automated driving function.

Keeping everyone safe is the number one priority – especially for Daisuke Abe. He works with experts at major Japanese automakers on systems designed to both achieve this social goal and to satisfy customers' requirements. "What Japanese car buyers look for first of all are features that make driving as stress-free as possible," he says. "We believe that continuous safety improvements are the crucial cornerstone on which to build that. That's why our driver assistance systems offer enhanced comfort and safety, with functions such as ACC adaptive cruise control and automatic emergency braking for situations in which the driver is no longer able to react quickly enough to prevent a collision." The traffic jam indicators that look like digital tapeworms on the display boards along the overpasses change color steadily, from green to yellow and then to red. The Golf has come to a standstill. As the traffic crawls ahead, Abe activates the traffic jam assist. At speeds of up to 60 kph, it drives off, accelerates, and brakes automatically, keeps the car in its lane, and maintains a safe distance to the vehicle in front. This Bosch system first went into series production in spring 2015. Although drivers must always be ready to reassume control of the car, the system nonetheless offers them increased safety in rush-hour traffic.

Scene change, back to the taxi. Hidenori Fujimoto would also appreciate having electronic systems that help the driver make decisions: "The hardest part of my job is to constantly stay alert. There's not much space in Tokyo, so you always have to concentrate. Pedestrians get very close to you in the traffic, and cyclists keep coming out of nowhere and crossing in front of you." What a boon it would be to have the predictive emergency braking system Abe is describing from the back seat. This vital safety

Daisuke Abe at the wheel of the VW demo vehicle: the activated traffic jam assistant offers him increased safety. Capable of working at speeds of up to 60 kph, the system drives off, accelerates, and brakes automatically, and keeps the car in its lane.

system can prevent rear-end collisions and accidents involving pedestrians in city traffic. It works by linking up sensors that monitor the vehicle's surroundings with the ESP® electronic stability program. With the help of a radar sensor and a camera, it continuously analyzes the traffic situation ahead of the vehicle.

What an asset, especially around Shibuya Crossing, the busiest intersection in the world. Here, each traffic signal phase allows pedestrians to cross back and forth among five streets – sometimes as many as 500,000 people on a single day. It's a prime example of how the many individual streams of traffic can cross each other in the megacity of Tokyo. Everyone in them must remain aware of the others and be able to trust in them to a certain extent; otherwise the mass of urban traffic wouldn't be able to move. It is based on a combination of rigorous rules and practiced processes. The taxi driver wipes the sweat off his brow. Shibuya Crossing is his territory, yet no matter how often he has to pass through it, the experience is always extraordinary. For the lives and work of professional drivers such as him, technical innovations have an especially large impact, and this impact will grow in the future.

After the taxi has passed the intersection, it turns off into one of Tokyo's "wards," neighborhoods designed to be impenetrable tangles of lanes and alleys. These labyrinths originated during wartime – the idea was to confuse potential invaders. Today's urban traffic must also find its way around these narrow quarters, and cars are frequently forced to turn due to the many one-way streets. In this situation, side view assist, the world's first ultrasound-based system for monitoring the blind spot, would be invaluable. Two ultrasound sensors on each side of the vehicle serve as electronic eyes, monitoring the area three meters alongside and diagonally to the rear of the vehicle. If a vehicle is detected in this area, a symbol in the side mirror indicates the potential hazard.

"We want to make the roads safer for all users."

Daisuke Abe, expert for driver assistance systems in Japan

"At Bosch, we believe that future mobility will be automated, connected, and electric. Automated driving affects every aspect of the vehicle and will increase safety, fuel efficiency, and comfort. Our expertise in powertrain development and driver assistance systems will help make automated driving a reality. We are pleased to work on this fascinating and innovative project together with pioneering companies such as Tesla and Google. We appreciate the opportunity to supply Google with major components of the electrical powertrain, including the electric motor and power electronics, as well as long-range radar sensors for its self-driving car project."

Dr. Volkmar Denner, chairman of the Bosch board of management

Over 50,000 taxis cruise the streets of Tokyo, four times as many as in New York City. The oldest taxi company has been in business for more than a century. When it started, Tokyo had three million residents and fewer than 300 automobiles on the roads. The first taxis were welcomed enthusiastically by *The Japan Times,* which wrote: "This will certainly improve the quality of life in the city." The new cabs faced the challenges of the narrow streets and, tougher still, of sharing space with the countless rickshaws. Consideration for others is a value Japanese culture has long lived and breathed. Every trip through the city sharpens Daisuke Abe's perception of the complexity of his tasks, although he rarely gets the perspective he has today, from the passenger's seat.

He and his colleagues are working to develop functions that enhance both active and passive safety: "We want to make the roads safer for all users." Challenges such as vehicle safety are what brought him to Bosch when he finished his degree: "It was always my dream to work in the automotive industry. But rather than one particular brand, I wanted to work for a supplier, and help drive innovations forward there."

Nighttime in Tokyo belongs to the taxis, especially between one and five in the morning when the subway stops running. "It's the best time for us, but you do get tired," Hidenori Fujimoto says. During the drive with Daisuke Abe, he was often amazed by the things his technically savvy passenger described, such as the benefits of the driver drowsiness detection function. Based on steering-angle information, this function constantly analyzes drivers' steering behavior to recognize phases when they do not steer and then make abrupt corrections – a common sign of flagging concentration and increasing fatigue. If it detects such a phase, the system emits a warning signal. From his nighttime trips to the suburbs, Fujimoto knows how dangerous microsleep can be. As Tokyo slowly awakens, taxi 136 closes its door for the last time. There is certainly a lot to be said for arriving home safe and sound – not only in Tokyo.

Life saver *in reverse*

Mid-range radar rear: this sensor variant is mounted at the rear of the vehicle.

Children love to play outdoors, which sometimes also means behind parked cars. Some large vehicles have such extensive blind spots, however, that even a driver who conscientiously checks every mirror might not be able to see a small child standing directly behind the rear bumper. And once the car starts moving, an accident can happen in a flash...

Financed by the Australian government and the state of Victoria, Bosch Australia's driver assistance systems specialists have developed what they call a back-over avoidance concept. It helps minimize risks precisely in the kind of situation described above, where drivers' field of view is severely restricted.

This automatic emergency braking function for cars that are backing up harnesses the radar and ultrasound sensors that are already used in various driver assistance systems for safely changing lanes, parking, and identifying blind spots. The function begins monitoring as soon as the reverse gear is engaged, and intervenes at speeds up to 15 kph. If the sensors detect someone in the path of a vehicle backing up and determine that a collision is unavoidable, the system instantly and automatically engages the brake. With a range of about ten meters, the sensors can monitor standard driveways and other areas with pedestrian traffic such as supermarket parking lots, where the risk of such accidents is greatest. The automatic emergency braking function also provides additional protection against collisions when the driver inadvertently puts the vehicle into reverse, or starts to accelerate while backing up in a dangerous situation.

On average, nearly 70 children under the age of 15 are seriously injured every year in Australia by vehicles backing up at home. After producing encouraging results, it is hoped that the project can now leave the study stage and be offered to automakers. The Society of Automotive Engineers Australasia has recognized the Bosch innovation with a platinum award for excellence in mobility engineering, its highest honor.

Distance *no object*

Through high-powered wireless charging, Bosch Power Tools is set to revolutionize the use of battery-operated appliances in the near future. The first step has already been taken with a wireless charging system for professional power tools. Developed in response to requests by tradespeople, it promises to make their everyday work more efficient.

Dr. Maik Rabe holds the future in his hand – a conventional cordless screwdriver with a new-generation battery pack. As the man behind the development of professional battery-powered tools, Rabe aims to use this machine to refute a commonly held belief that hardly anyone has dared question, not even in their wildest dreams – that electricity only flows through cables and contact points. And he has succeeded.

The trailblazing appliance lies on the table before him: a plastic housing that is connected to the mains, but has no visible contacts. Rabe holds the cordless screwdriver a few millimeters away from this charger. Even though they are not actually touching (the screwdriver similarly has no electrical contacts), the battery is still being charged. It's almost as if the energy is being drawn through the air. The technical term for this process is inductive charging. A coil in the transmitter generates a magnetic field. When the coil in the screwdriver's rechargeable battery comes within the range of this magnetic field, a voltage is induced, generating a flow of current that is then stored in the battery.

The Bosch wireless charging system works without any electrical contact points between the battery pack and the charger, without cables, and even remotely, provided the charger and tool are not too far apart. When the cordless screwdriver is not being used, the tradesperson simply places it on top of the charger. That way, the battery is replenished during any pauses between operation. A humbler version of the system can be found in electric toothbrushes, which rest on their plastic stands between brushings so that they are fully charged when next needed. However, the amount of energy required to power an electric toothbrush is very small. Plus, there is no rush to recharge a toothbrush. Under these conditions, a cordless screwdriver would not receive the energy it requires. Making inductive charging capable of handling high levels of power uptake was therefore one of the challenges the Bosch developers had to deal with – but one they managed to overcome to meet customers' needs.

As Rabe points out, "One problem professional tradespeople have is the availability of a power supply on site." True, the power-hungry tools that had to be plugged into the mains five years ago can now be battery operated. But this has come at a cost – increasingly large and heavy chargers. Often, backup batteries are needed. And if the tradespeople forget

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to recharge, work can come grinding to a frustrating halt. Even without these involuntary interruptions, the recharging process adversely affects productivity.

Bosch approaches this problem in two ways. First, battery performance is being constantly improved. As early as mid-

2015, wireless battery packs will be available with a capacity of four ampere hours, instead of the two that have been standard up to now. As a result, it will also be possible to use batteries in tools that require more energy, such as angle grinders. Secondly, the charging process is being simplified and integrated into existing workflows. For this purpose, tradespeople were polled and their usage patterns analyzed. The findings revealed that professionals have a problem with plug-in contacts, since these are sensitive to dirt. In the current solution, the only contact is between plastic (the battery) and plastic (the charger). Plus, the backup battery is no longer necessary. The new system is also more compact and robust than its predecessors. When developing it, the greatest challenge to solve was that metal objects get very hot if they are caught between the battery pack and the charger during the recharging process. For safety's sake, it had to be ensured that the charger could detect metal and, if it did, would immediately terminate the charging process and indicate a fault.

The charging system for cordless screwdrivers is currently available for stationary applications, allowing customers to install it in a production line or workshop. There are also plans for the charging station to be integrated into workbenches, removing the clutter of chargers and cables from the work surface. The mobile version is scheduled to reach the market in 2015. Being able to use travel times to recharge was high up on customers' wish lists. With the Bosch system, the journey to a job site is usually sufficient to charge a cordless screwdriver for a day's work – including a reserve battery. Packed into its plastic case, the cordless screwdriver is secured near the charger, which is powered by the vehicle battery. In this way, the tool is recharged during the trip, without having to be removed from its case. The upshot is that tradespeople save time and don't have to hunt for power outlets on site.

It goes without saying that there is talk at Bosch about how the advantages of the wireless charging system can be harnessed in other fields. Maik Rabe believes this is entirely viable:

"In each case, the concern is to find the easiest way to get the energy into the battery. Our solution is ready for use wherever and whenever."

Dr. Maik Rabe, Bosch expert for cordless professional tools

There is no reason why the Bosch system could not be built into desks to recharge laptops wirelessly or allow electric can openers and beaters to function entirely without cables in the kitchen. And if the system were built into cars, cellphones and laptops could be charged wirelessly there as well – the possibilities are endless. Rabe believes it all comes down to one thing: "The success of a product depends on whether a manufacturer can offer the right solution to a customer's problem, and spark the customer's enthusiasm at the same time."

Research *unlimited*

Can a researcher's working environment foster creativity and new ideas? Bosch thinks so – and has built a state-of-the-art facility to prove it. The facility incorporates the latest wisdom from industrial and organizational science, as well as the needs and wishes of associates. During a walk across the Renningen site, the developers Anja Englert and Franz Lärmer talk about their previous working environments as well as their hopes and expectations for the new research campus.

Building 120, second floor. A generous balcony overlooking the Renningen research campus. Behind Lärmer and Englert, the high-rise building towers into the sky.

Lärmer: Is that where you'll be working?

Englert: That's right, I'll be sitting on the fourth floor, in the back left corner, together with the rest of my "functional safety" team.

Lärmer: I would have really liked to have a shared office space with my team at our last location. You can't imagine how the flow of information is interrupted when the group is split by even a single wall!

Englert: It was the same for us. Online, we use the Bosch Connect social business network, especially with international colleagues. But when it comes to those short daily updates on project progress, we prefer to do them face-to-face.

Lärmer: Physical proximity is important. At the same time, I often need peace and quiet – for instance, when I have to conduct a confidential phone call with the patents department. I'm happy that I won't need to book a room in advance for such things anymore, but can just go and find one when I need it. Then I'll just take my smartphone along...

Englert: ...and maybe your laptop too? My colleagues and I often retreat to the small blue room over there – the one with bar tables and stools. That way, when a short conversation turns into a longer discussion about something work-related, we don't disturb anyone.

Lärmer: I find bar tables so practical, by the way. When you just want to have a five-minute conversation with someone, they encourage you to keep it short – unlike when you're sitting on that sofa there. I think bar tables are a better idea.

Dr. Anja Englert *(31) is a physics graduate and has been working at Bosch for two years. She researches systems safety in the User Technologies unit, specifically taking human behavior into account. She is also developing a crowd-funding model within the research department. The model uses online channels to evaluate and attract financing for exciting ideas.*

Dr. Franz Lärmer *(54) is also a physicist. For decades, he has been one of Bosch's most prominent inventors. In the early 1990s, he developed a process that revolutionized the production of MEMS sensors, and which is still used worldwide. He has filed nearly 200 patents for this and other inventions. Lärmer is currently heading up a project in the area of medical technology.*

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research-campus

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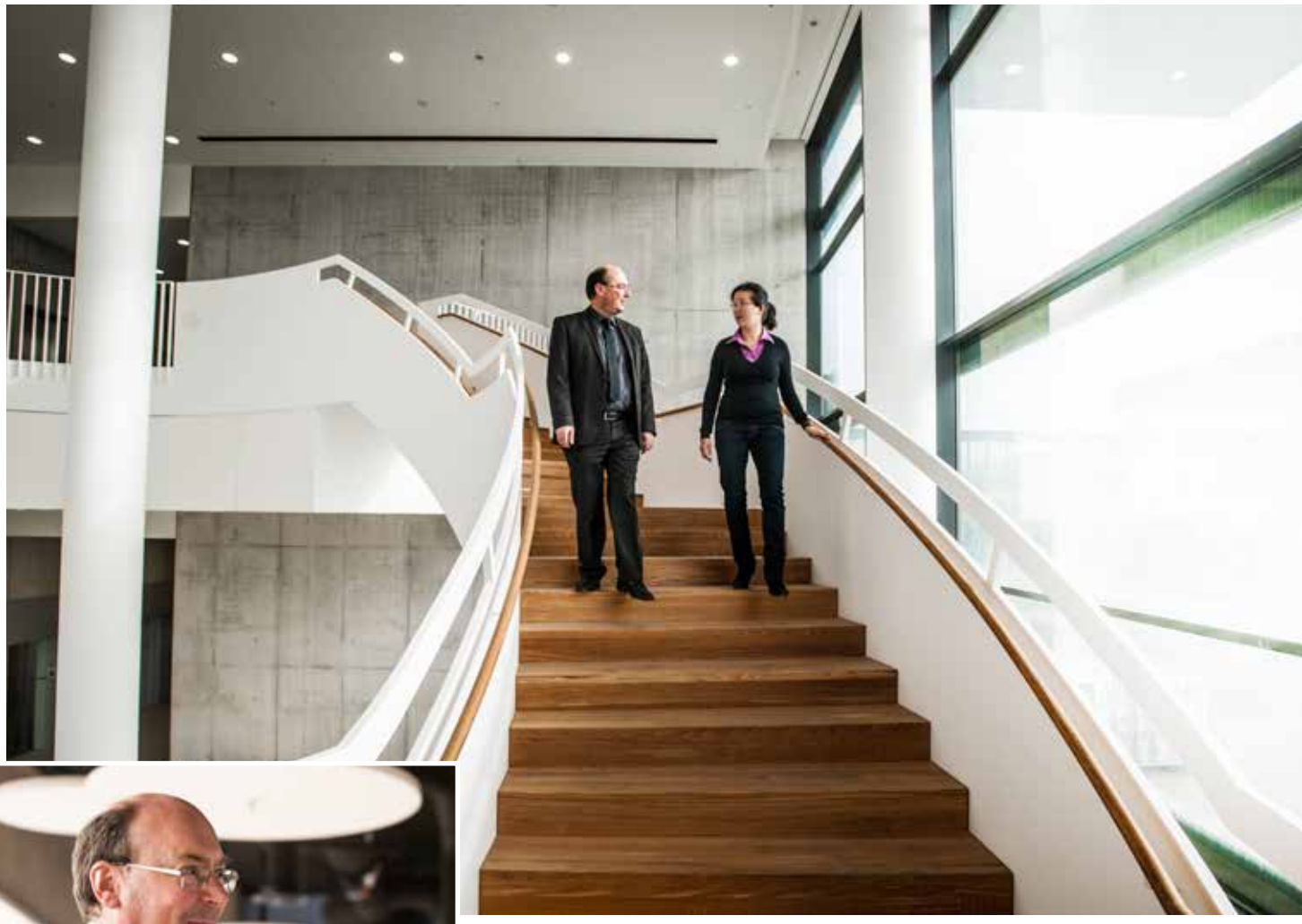
1,800
pieces of **machinery and equipment** from 270 laboratories changed location.

45,700
researchers and developers work on innovations at Bosch. They include just under 1,400 associates working worldwide in the corporate sector for research and advance engineering. Of these, roughly 1,200 work in Renningen.

Some
5 **billion euros**
were invested by Bosch in research and development in 2014 – around 10 percent of sales revenue.

12,000 boxes were packed so that Bosch researchers previously working at various locations around the greater Stuttgart area could move to the new Renningen campus.

Bosch associates file an average of
18 **patents per day.**



"Imagine the potential! When the chemist working on project X runs into the engineer from project Y, ***the result could be something completely new and unexpected."***

Dr. Franz Lärmer, physicist at Bosch

Renningen

At its new center for research and advance engineering in Renningen, Bosch has brought together more than 1,200 researchers and developers as well as some 500 students. In around two and a half years, the new research campus was built on a tract of land just outside Stuttgart. Associates who were previously split between three locations in the greater Stuttgart area have just started working together on the new campus. Renningen is the new heart of corporate research and advance engineering, whose international network spans locations in China, Germany, India, Japan, Russia, Singapore, and the United States.

In Renningen, the planning and design process took account of the latest insights from research into the working environments of the future. A core team of associates was involved in the process from the beginning and contributed their ideas and wishes.

The planners were also careful to take sustainability and eco-friendliness into account. For instance, rainwater is collected in the campus's two lakes and later used to supply cooling towers. This saves more than 20,000 cubic meters of fresh water annually – the equivalent of 200,000 bathtubs full. And solar panels on the roofs generate enough electricity for 100 four-person families.

The Renningen campus comprises 14 buildings on an approximately 43-hectare site. This is about the size of 60 football fields – plenty of space for inventions that improve quality of life. The Bosch CEO Volkmar Denner is certain of one thing: "The Renningen location will enhance the Bosch Group's innovative strength."

The labs next door: the new location offers researchers the possibility to quickly and efficiently discuss ideas with technicians.

Englert: Me, I like a more relaxed atmosphere. So it's good that each department can decide for itself how it wants to equip its meeting rooms. What I think we're all going to find is that our physical workplaces are not so rigidly defined anymore: sometimes we'll work at our desks, sometimes in one of the other rooms here, sometimes in the lab…

Lärmer: Yeah, my team will be able to work much more flexibly. For them, it's ideal that they can quickly pop over to the lab two doors down, or head down to the workshop to talk directly to the technicians.

A few steps further: one of the eight communication zones on the Renningen campus. 100 square meters to talk or relax. Lärmer tries his luck on the basketball court. To the left is a table that can sit 15 people comfortably.

Lärmer: We can celebrate birthdays with our colleagues here.

Englert: Or sit and work on our laptops. Though I prefer to do that at my desk, or outside in the summer, using wifi. But this is a great spot for spontaneous meetings.

Lärmer: And it's those spontaneous meetings that often result in the best ideas. Imagine the potential! When the chemist working on project X runs into the engineer from project Y, the result could be something completely new and unexpected.

Englert: And when you're standing around the coffee machine, hierarchies are not so important.

Lärmer: True. I can imagine that it might be easier for an associate to ask their supervisor for advice in such a setting. These kinds of opportunities for chance encounters didn't use to exist in my department.

Englert and Lärmer stroll on across the campus. They pass the lakes which also serve as catchment basins and entice passers-by to linger on their grassy banks. Behind them is the associate cafeteria. The large windows looking onto the terrace can be opened.

For the researchers Regina Schrembs, Sven Dose, and Karlheinz Häcker, it's simple to move back and forth between workshop and office on the new campus.

Englert: Over here in the bistro, I can grab a cup of coffee and a sandwich outside of the cafeteria's opening times. For me, rigid working hours don't fit with the idea of a modern working culture. I'm also happy that I can occasionally work from home. For example, exchanges over Bosch Connect work great from my workplace at home.

Lärmer: Do you have children?

Englert: Yes, Johanna is three, and Valentin just turned one. So the flexibility I have here also helps me with the job of looking after them. Usually, however, they're in daycare here in Renningen – something that Bosch offers in cooperation with the city.

Lärmer: I spend most of my time in the office, since I want to be available for my associates. That said, I do frequently read work-related articles at home. Where you do your work is less important – good ideas can come to you anywhere.

Englert: When the conditions are right...

Lärmer: Absolutely. All associates, particularly those in research, need space – both intellectual and physical. You can't force innovations, but you can create the optimum conditions for doing good research and enjoying the process.

Two questions for Susanne Klement, expert on work organization at Bosch

How does a working environment encourage creativity and new ideas?

Associates work more productively when their working conditions are inspiring, attractive, and suited to the task at hand. All this improves the company's innovative strength, which in turn allows us to offer our customers solutions that enrich their lives. At the same time, we increase our competitiveness, as well as our attractiveness as an employer.

What are the key factors for this?

There are three: working time regulations, physical workplace, and equipment. Telecommuting and flexible arrangements enable us to complete our tasks in the office, on the road, or at home. Mobile devices and a good, reliable IT setup for digital communication make this flexibility easier. A modern working environment also helps, and facilitates teamwork. At the same time, such an environment offers secluded spaces for uninterrupted concentration.

***Wissensfabrik* initiative**

More knowledge, more education, more prospects

Pulley project: children try out a pulley system they constructed together with Bosch Rexroth apprentices.

Bosch is not only concerned with the associates currently working in research. The company also has a keen interest in tomorrow's inventors and engineers. As part of the *Wissensfabrik* (knowledge factory) initiative, Bosch has joined forces with other companies and foundations to actively support education for young people as well as to foster entrepreneurship in Germany. The *Wissensfabrik* members have the common objective of ensuring Germany's future as a business location. Bosch is one of the initiative's founding members. "Bosch associates take on social responsibility and help make the next generation fit for the future," says Franz Fehrenbach, chairman of the supervisory board of Robert Bosch GmbH. "That includes kindling young girls' and boys' enthusiasm for technology and business as early as possible." The supplier of technology and services supports the educational activities of schools and preschools, while also providing assistance for startups.

In the area of early learning, the *Wissensfabrik's* members enter into partnerships with schools and preschools in their respective regions. The focus is on familiarizing children with scientific, technical, and economic topics. Experts supervise projects, which often involve parents as well. Bosch locations with their own apprenticeship schemes also team up with local pre-, elementary, and secondary schools. They employ educational aids such as construction kits and involve children in individual projects designed to foster interest in technology and introduce basic economic concepts. Many Bosch apprentices themselves get involved, and in contributing their knowledge and supervising projects also have the opportunity to improve their own social skills. Bosch is currently actively involved in more than 280 educational partnerships around Germany.

The initiative also addresses the subject of entrepreneurship. Managers and experts from the member organizations offer mentoring support for people setting up their own businesses. Along with sharing their know-how and experience, they simultaneously take on social responsibility – and gain useful insights for their own work.

A continent of *opportunities*

"The increasingly well-educated workforce, the growing middle class, and the continent's wealth of raw materials – all these point toward positive economic development for many African countries."

John Ndungo, the first Bosch Thermotechnology associate in Kenya

John Ndungu and João Ribeiro at Jomo Kenyatta International Airport.

More than a billion people live in Africa. That gives Bosch more than a billion reasons to focus on the continent, which is also an enormous growth market. The company not only delivers products tailored to customers there, but also believes in the importance of having local Bosch associates to look after customers and provide after-sales service. The Thermotechnology division is proof positive that this strategy is succeeding where industrial boiler technology is concerned – and that it is also having a positive influence on lives in Africa.

João Ribeiro's daughter has a map of Africa on the wall of her room. Her father hung it there. Whenever the 37-year-old Portuguese goes on a business trip, he marks his next destination with a small pin: "So that Caterina always knows where I am." Ribeiro is based in Lisbon, and is responsible for servicing the industrial boiler market in Africa for Bosch Thermotechnology. By now, his eight-year-old daughter knows the countries marked by heart: Kenya, Morocco, Algeria, Egypt, South Africa, and five or six others. There are deep pin holes marking all these countries. That's because the strategic development of the market by Bosch Thermotechnology is gathering steam. Pin by pin, country by country. And according to plan.

Ribeiro has another map of Africa he keeps folded in his wallet. Each country is highlighted in a different color, and the paper is well worn. That scrap of paper is his constant companion. It helps him get his bearings and plan his trips. He is usually on the road for one to two weeks each month. Recently, Ribeiro has been spending a lot of time in Kenya. Every time he leaves the security-restricted area of Jomo Kenyatta International Airport, John Ndungu is waiting for him. "Karibu," says John, which means "welcome" in Swahili. The greeting is heartfelt. Ndungu is the first Bosch Thermotechnology associate in Kenya. Together, they set off to Thika, a city in the country's northeast with a population of 100,000. The journey takes just under an hour. In early 2015, Bosch Thermotechnology installed two large industrial boilers in a pineapple factory in Thika owned by the U.S.-based food company Del Monte. Each of the boilers weighs 30 metric tons, is eight meters long, and measures three meters in diameter. They provide steam for pasteurizing and cooking the 240,000 metric tons of pineapples which are processed annually at the factory. Up to 9,000 metric tons of CO_2 are saved by the new, modern boilers. They've also made production stoppages almost a thing of the past. Since production is now reliable and energy efficient, the company is considerably more profitable. For its 6,000-strong workforce, that means greater job security. The investment in Bosch boilers by the pineapple factory in Kenya will pay for itself in just one year.

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But how can a company plan to grow on a continent whose countries are like pieces of a puzzle that don't seem to fit together? Africa has 54 states, which means 54 political and economic landscapes that could hardly be more different. Analyzing markets often seems more like gazing into a crystal ball. Business conditions change in the blink of an eye, and forecasts are sometimes based on no more than estimates.

For forecasts to be more reliable, some basic legwork needs to be done. Ribeiro joined Bosch in 2011 to do precisely this. He calculates potential sales, sets priorities, defines key criteria, sets up contacts with clients, and interviews job candidates. Along with César Maurício, who is responsible for Thermotechnology sales in Africa, he has developed a concept that envisions increasing the industrial boiler market share in Africa to 20 percent by 2020. For a long time now, Bosch has been working to make Africa a success story. In 2014, sales of industrial boilers grew by 183 percent year on year. Thermotechnology's industrial-scale boilers are in great demand. Multinationals such as Coca-Cola, ExxonMobil, Heineken, Nestlé, and SABMiller rely on Bosch quality. But pharmaceuticals companies and hospitals also appreciate the extra value these boilers deliver and use the steam they produce to sterilize laboratory and surgical instruments.

In order to be successful, Bosch not only needs to deliver the right products at the right price, but also at the right place at the right time. "Customers want improved efficiency, higher quality, and better service," Ribeiro says. "So, if we want to sell more, we also need more qualified Bosch associates on the ground. Otherwise that growth will not be sustainable." In contrast to the two million-plus gas-fired instantaneous water heaters already installed in private homes in Africa, large-scale industrial boilers have to be installed and serviced by people with a lot of expertise. The number of Thermotechnology associates responsible for Africa is growing markedly. Maurício expects to have at least 60 Bosch Thermotechnology colleagues in Africa by 2020. Just three years ago, three associates were responsible for the entire continent.

The Bosch Africa strategy

Positive outlook

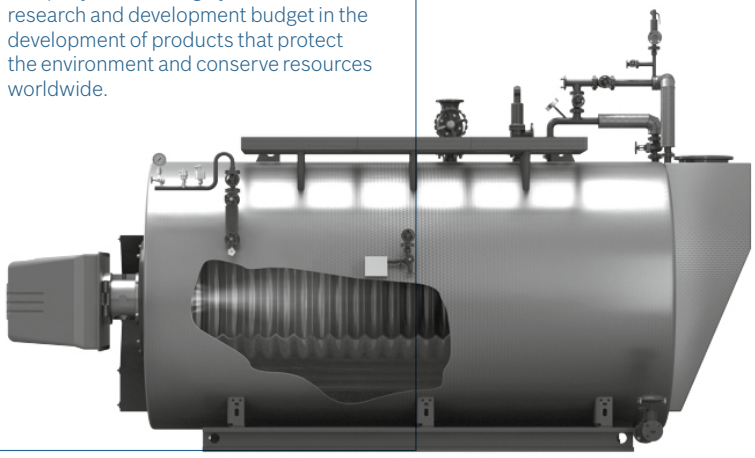
Bosch has been doing business in Africa throughout nearly its entire history. The first sales representative arrived in South Africa as early as 1906. Today, the African economy is one of the world's most dynamic. At the end of 2014, Bosch had a regional subsidiary or branch office in nine African countries. Five of these – Nigeria, Angola, Mozambique, Ghana, and Algeria – were established in 2014. Prior to that, there were already offices in Morocco, Egypt, Kenya, and South Africa. In 2015, a location in Tunisia will join them. In 2014, roughly 670 Bosch associates generated sales of some 350 million euros in Africa. The focus of the company's activities is currently South Africa, where there are two manufacturing sites: original automotive equipment and spare parts are made in Brits, while packaging machinery is assembled in Midrand. According to the Bosch board of management member Uwe Raschke, "Africa's economy is growing at an above-average pace. The capital expenditure required to improve its infrastructure offers significant potential for future expansion, as does its growing middle class." For years now, Bosch has undertaken a wide range of activities that underscore the importance of Africa. For instance, Bosch executives regularly meet with external experts on Africa from various organizations and government agencies during an Africa Day in Europe or Africa. The participants discuss their experiences as well as strategic considerations. In addition, since 2008 Bosch has been involved in "Afrika kommt!", an initiative of German industry for future leaders from subsaharan Africa. "Our goal is to foster mutual exchange and learning between budding African executives and German companies," says Tilman Todenhöfer, managing partner of Robert Bosch Industrietreuhand KG. "This offers an important basis for the expansion of business relations between Europe and Africa."

One of them is Ndungu. He often talks about how proud he is to work for Bosch: “We can contribute to improving quality of life for local people with our products and services. In this respect, we are concentrating on the needs of our local customers.” There is also another motivation: “On a personal level, now that I have a secure job, it’s easier for me to plan ahead,” says Ndungu, who has also been to Germany for training. Beaming, he displays a photo of his daughter. “My job is making it possible for Mary Anne Nginya to study at Egerton University in Nakuru.” Like Mary Anne, ever more young people in Africa are going to college. The increasingly well-educated workforce, the growing middle class, and the continent’s wealth of raw materials – all these point toward positive economic development for many African countries.

Going forward, Ribeiro will fly back and forth frequently to ensure the continued success of this Bosch strategy. But the next pin he will place on his daughter’s map will not be business-related. It will be in the Seychelles, the island state in the Indian Ocean which is also part of Africa. He will be taking a personal trip there, together with his wife Eunice, to celebrate their tenth wedding anniversary. Even so, Ribeiro has done some research and found out that there are three Bosch boilers there. “While I’m there, I may as well ask them if they need any support.”

Boilers: eco-friendly and efficient

Bosch is committed to environmental protection and resource conservation. The company’s sustainable, efficient industrial boilers keep CO_2 emissions to a minimum and help mitigate climate change. Additional savings can be achieved thanks to the modular design of the boiler house equipment.The company invests roughly half its annual research and development budget in the development of products that protect the environment and conserve resources worldwide.

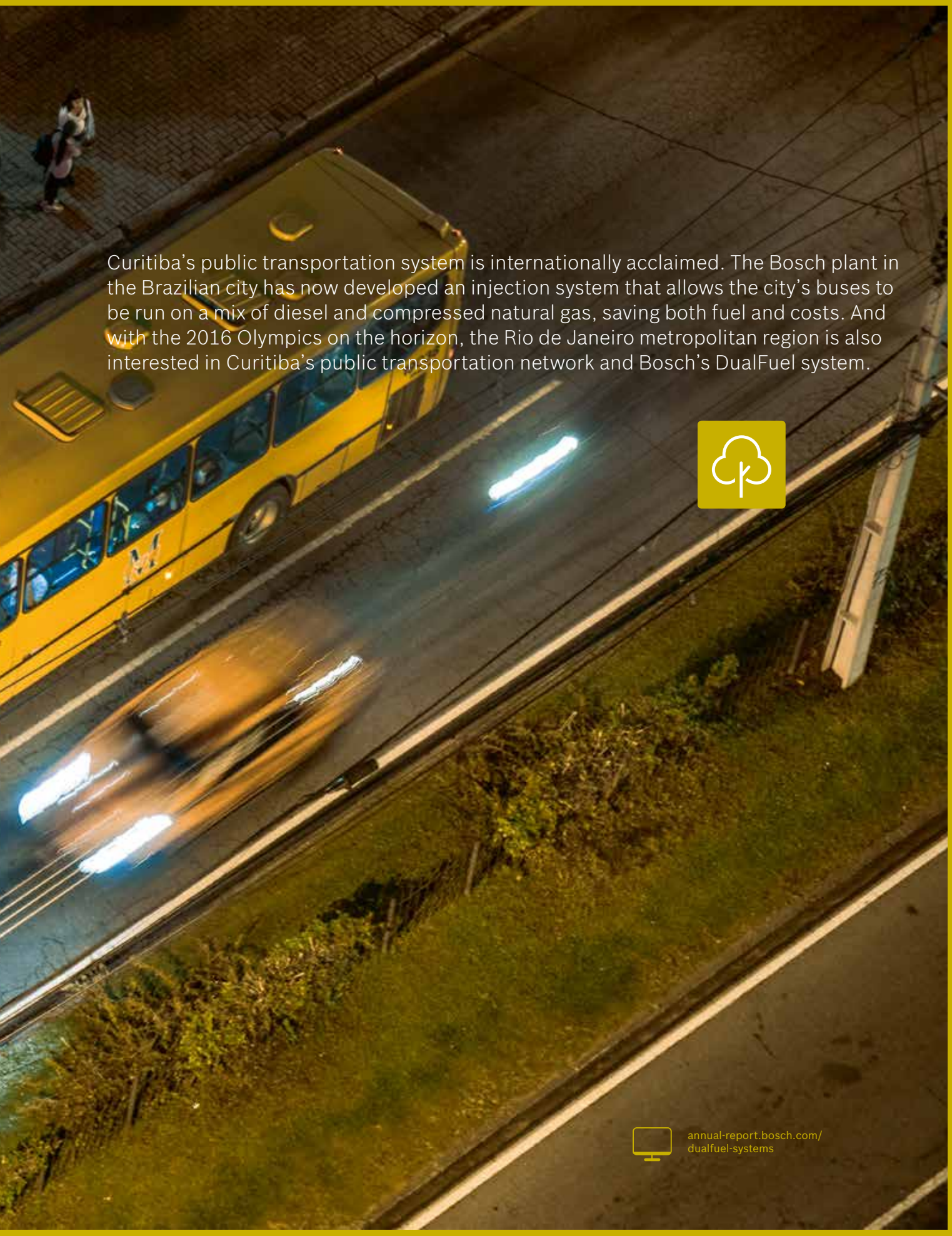


Roughly

50 **percent**

of the Bosch Group’s annual research and development budget is invested in developing products that protect the environment and conserve resources worldwide.

Curitiba *cocktail*



Curitiba's public transportation system is internationally acclaimed. The Bosch plant in the Brazilian city has now developed an injection system that allows the city's buses to be run on a mix of diesel and compressed natural gas, saving both fuel and costs. And with the 2016 Olympics on the horizon, the Rio de Janeiro metropolitan region is also interested in Curitiba's public transportation network and Bosch's DualFuel system.

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dualfuel-systems

The engineer Frederico Tischer with the group leader Martha Mello Canelada.

2,500

bar is the maximum pressure achieved by the common-rail system. With this technology, Bosch is making diesel powertrains in commercial vehicles even more energy efficient, and reducing costs and emissions per kilometer driven.

50,000

is the number of **commercial-vehicle engines** that Bosch will equip in 2015 with complete CNG systems including control units, sensors, and injection valves.

6

percent is the amount of fuel that heavy trucks can save on long-haul trips through electrification. By the end of the decade, the plan is to develop an electric hybrid for trucks that will pay for itself within two to three years.

Around the world, Bosch's diesel systems business is growing. In Asia, customers are preparing for the China 4 emissions standard. In North America, automakers are planning to introduce some 60 new diesel passenger-car models by 2017. In passenger cars and vans, diesel's market share could realistically reach 10 percent by the end of the decade.

15 **percent** is the total amount by which Bosch technology can reduce fuel consumption in commercial vehicles by 2020.

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dualfuel-systems

It's 6:32 a.m. In the middle of the Boa Vista district, at the intersection of Rua Holanda and Rua Jovino de Rosário, Valtair Mafioletti Ribeiro starts his diesel engine. For the tour ahead, the driver takes his bus deep into the urban jungle. Driving for a private bus company, he avoids the main roads, so as not to make the rush-hour traffic in Curitiba even worse. With 1.8 million inhabitants, Curitiba is the largest city in Brazil's Região Sul, or southern region. Ribeiro wants it to stay clean and not choke on exhaust fumes. When it comes to quality of life, Curitiba has a reputation to defend. And Ribeiro sees himself as an integral part of a system designed to make the locals' lives as pleasant as possible. "My job benefits the city and its people," the bus driver says, as he navigates a zigzag course across the city. His Linha 11 (No. 11 bus) plies through Ahú and Juvevê, takes Rua Comendador Macedo to cross the city center, then drives on via Batel, Vila Izabel, and Portão until it reaches the terminus on Avenue Juscelino Kubitschek de Oliveira. After 53 minutes and 17 stops, 25 Bosch associates get off at the Curitiba plant gate.

Bosch is just one of many companies offering such a private bus service, which gives its associates a stress-free journey to work, is affordable (costing roughly a euro a month), and helps the city keep a lot of cars off the roads. Seventy-five bus trips end at the Bosch plant gates every day, bringing 2,200 people to work and taking them home again. Ribeiro has been plying his route for five years now. The fuel tank of his bus takes 370 liters of diesel, enough for 1,000 kilometers.

If the Bosch engineers in Curitiba have anything to do with it, Ribeiro should soon be able to drive these 1,000 kilometers on somewhat less fuel, and thus with even less impact on the environment. Their solution is a newly developed engine, the Dual-Fuel – Diesel + CNG. CNG stands for compressed natural gas. Using a specially developed injection nozzle, the gas is mixed with air. This mixture is then forced into the cylinder, where it burns efficiently together with the diesel that has been injected. This mixture, the "Curitiba cocktail," reduces emissions by as much as 20 percent while delivering the same power and torque. For bus operators, it means a 20 percent reduction in fuel costs, since natural gas is roughly one-third cheaper than diesel.

The idea of running an engine on a mixture of diesel and natural gas is not new. But Bosch is the first to offer a solution that is efficient, powerful, economical, and eco-friendly. Mário Massagardi never tires of underlining this fact. When it comes to the DualFuel system, the specialist from Diesel Systems Latin America is a "Bosch ambassador." He gives talks, warns of climate change, and extols the virtues of this engine when it is used in public transportation. "The facts speak for themselves. The decisive thing now is to create an infrastructure that will make it practical to use this engine," Massagardi says. After all, it has to be possible to fill the CNG tank somewhere. In other words, this is not just a question of rethinking, but also of retrofitting and reorganizing. After all, Curitiba provides daily proof that intelligent measures can truly keep traffic and pollution under control.

The capital of the Brazilian state of Paraná sits on a plateau roughly 1,000 meters above sea level. With its many German, Italian, Polish, and Ukrainian immigrants, the city has a quite distinctive history. In the early 1960s, following a decade in which the city had expanded rapidly, the architect Jaime Lerner enlisted the help of a group of experts from the local university. He wanted to deliberately use urban planning to give Curitiba sustainable growth on a human scale. The experts explored the use of such things as parkland, forested areas, public cultural amenities such as free libraries, as well as the need for far-sighted traffic planning. Today, Curitiba is ranked third among

For commercial vehicles, Bosch offers a combined natural gas and diesel system that allows up to 90 percent of diesel to be replaced by natural gas. Here, the diesel injection system acts as a kind of liquid spark plug. As it ignites the gas, there is no need for any additional ignition system.

20

percent reduction in both CO_2 emissions and operating costs

*"My job **benefits the city and its people.**"*

Valtair Mafioletti Ribeiro, bus driver

the world's greenest cities. In the city with the highest per capita truck density in Brazil, the "trinary" road system plays an important role in the city's eco-friendly credentials. Under this system, also Lerner's brainchild, two one-way streets moving in opposite directions surround a two-lane street for buses. Special wheelchair-accessible bus stops – which were designed as elevated tubes and which cannot be accessed without a valid ticket – ensure that passengers can get quickly on and off the buses. As a result, the average speed of Curitiba's buses is high. Lerner later became mayor and governor, while the city itself was named the "world's most innovative city" at the Habitat II summit of urban planners in 1996.

Like many Brazilian metropolises that are grappling with suffocating traffic, Rio de Janeiro is also very interested in a well-functioning bus system. It wants to modernize its public transportation in time for the 2016 Olympics, and regards Curitiba as a model. And in order to make local transportation not only smoother but also more cost-effective and eco-friendly, the municipal authorities are considering renewing the bus fleet at the same time – with Bosch's DualFuel system. For this to happen, the 64 depots where local buses are serviced and filled with fuel would have to be connected to Rio's gas supply.

It would be a worthwhile investment. Rio has some 10,000 public buses. New buses fitted with the DualFuel system would cut CO_2 emissions by 250,000 metric tons a year, while annual operating costs would fall by 100 million dollars. And there is another economic argument. Every four years, Rio renews its bus fleet, selling the old ones on to smaller cities. Often, these cities do not have any natural gas supply, so they are only interested in diesel buses. The advantage of the Bosch DualFuel system is that it can also run on diesel alone. The only difference is that the bus consumes slightly more fuel.

What sounds good in theory is also impressive in practice. Out on the short test track on the Bosch site in Curitiba, the engineer Frederico Tischer gets behind the wheel of a prototype. It is loaded with large, heavy water canisters, which are intended to simulate a fully-laden bus. The 7.2-liter engine delivers 260 horsepower for a payload of 17 metric tons. "Just look how easily it takes this hill," Tischer says, and steps on the

Keeping traffic moving: tube-shaped bus stops are an important element of Curitiba's concept for public transportation. They allow passengers to get on and off quickly and minimize the time each bus needs to spend at the stop.

gas pedal. The typical sound of the diesel engine is unmistakable, but as more gas is added to the mix, the sound becomes more mellow. The Curitiba cocktail not only has its own special recipe, but also its own distinctive melody. And its sound will be unmistakable on Brazil's roads when the engine finds its first customers. Until then, the bus driver Valtair Mafioletti Ribeiro will have to make do with pure diesel. Starting from Rua Holanda at 6:32 every morning, with 53 minutes and 17 stops to go: this is his route to Bosch – and his contribution to the city's well-being. He wants Curitiba to stay clean.

7.2 liters, 260 horsepower: the DualFuel engine for diesel and CNG reduces both **CO_2 emissions and fuel costs by 20 percent.** The prototype is already being put through its paces at the Bosch test track in Curitiba.

Quality *with a capital Q*

For two years now, Lan Guo and her family have lived in Reutlingen, Germany. As quality manager for ceramic production at the Bosch location there, the Chinese native sets the bar high for products and processes. And outside of work, she appreciates the quality of life in her new home.

Talking through a face mask: Lan Guo in discussion with one of her quality management colleagues in clean room W500 at the Reutlingen site. In the lab, the native of China scrutinizes a ceramic component.

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quality-assurance

Quality *with a capital Q*

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In the clean rooms of its wafer fab in Reutlingen, Bosch reduces the number of particles measuring a maximum of 5 µm to just

20

per cubic meter of air.

17 **times thinner than a human hair:** this is how tiny some of the components developed by Bosch for its MEMS (microelectromechanical systems) sensors are.

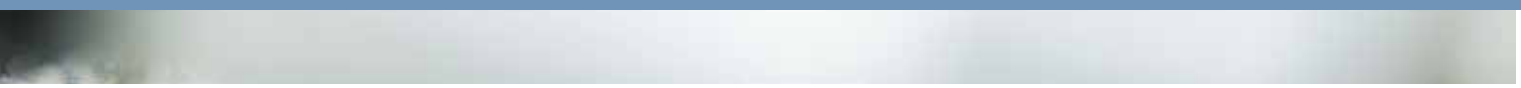
Today, around **100** **sensors** (including MEMS sensors) are installed in modern premium-class vehicles and play a part in controlling their drive, chassis, and safety systems.

*"**Dust and particles** can interfere with the sensitive production processes and greatly impair the sensors' functions."*

Lan Guo, quality manager

It is expected that the market for MEMS will grow on average by

12 **percent** each year, to reach sales of 18 billion U.S. dollars by 2017.



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Changing for work requires adherence to a strict ritual. Lan Guo puts on special white shoes, slips on an overall, then dons a cap, rubber gloves, and a face mask. All that remains to identify the young Chinese woman are her glasses. Inside an airlock, any impurities on her clothes are removed. Only then is she ready to enter clean room W500.

Here, making a clean job of ceramics is taken literally. The standards for the clean room W500 are especially high: one cubic meter of air in the clean room can contain a maximum of just 3,250 particles larger than 0.5µm. Compare that with the same volume of air in an urban area with a 30-kph speed limit and you're up against 500,000 such particles. "Dust and particles can interfere with the sensitive production processes and greatly impair the sensors' functions," Guo explains, pointing to her protective clothing and her muffled-up colleagues. In the sterile environment, a constant humming and hissing accompanies the printing of silver conducting tracks onto the flexible basic components that are fired to form ceramics. Once a series of further complex processes has been completed, these products are sent to other Bosch locations, where experts populate the ceramic base with electronic components such as sensors that measure air pressure in engine compartments or nitrogen-oxide levels in exhaust fumes. Alternatively, they might be fitted with sensors for smartphones or tablets that detect how the device is being held so the display can adjust to landscape or portrait format.

Manufacturing such highly sensitive products demands adherence to meticulous standards – and not just as regards cleanliness, but also the tiniest deviations from the production process. That's why Guo, the group leader for quality management, meets regularly with her quality management colleagues at the "Q base." There, she discusses the events of the previous day with a shift supervisor from production, as well as with team leaders and process engineers. Were rejects produced? Did any faults occur? Did the Bosch sites supplied have any production-related complaints?

Before Guo came to Reutlingen, she worked for Bosch in the eastern Chinese city of Suzhou as a senior manager responsible for quality control. Now, as global quality manager, she oversees the Suzhou location. "My background means that I understand both sides, and that makes for good working relationships and communications," she says. Her main concern is to enhance the way Bosch locations collabo-

"We soon built up a circle of good friends."

Lan Guo, quality manager

Family day to celebrate the 50th anniversary of the Bosch location in Reutlingen: Lan Guo with her husband Chencong Li and son Rui.

rate, with a view to improving product quality even further. It's why she always strives to be "reasonable and conciliatory" in her communications.

Lan Guo speaks English, German, and Chinese at work. Since arriving in Reutlingen with her husband and son two years ago, she has attended German language classes on the Reutlingen premises once or twice a week. After six months at the kindergarten in Reutlingen, her five-year-old son Rui was so used to speaking German that he was initially reluctant to switch back to Chinese on a trip to the family's native country.

Lan Guo's husband works as a project manager in R&D at Bosch in Reutlingen. Through their son, the two of them quickly got to know other parents. "We soon built up a circle of good friends," the quality manager says, seeing this as further testimony to her high quality of life in Germany. The impressive technological standards in her new home have also made an impression on her: "At first, I was totally amazed at all the great cars and motorcycles."

Something else she really appreciates in Germany is how much easier it is to find a better balance between work and family life. Even so, she misses the way she used to meet up with Chinese colleagues. That's why she arranges get-togethers with her German colleagues after hours – which is the norm back home. "It's my way of introducing a bit of the Chinese work culture," says Lan Guo, whom most of her colleagues know as Landy. In 2016, she and her family will return to China at the end of their three-year stint in Germany. By then, she says, she hopes to have a much better grasp of the language, adding in faultless German, "Der Himmel ist blau mit vielen Wolken." (The sky is blue with lots of clouds).

High-tech helpers for vehicles and smartphones

For many years now, sensors in systems such as the ESP® electronic stability program have been instrumental in making cars safer. The sensory feedback for these systems is provided by tiny MEMS (microelectromechanical systems) sensors. Bosch in Reutlingen has mass-produced some five billion such sensors since 1995. Today's passenger cars contain up to 50 MEMS sensors, measuring acceleration, temperature, humidity, tire traction, noise, vibration, and light. These components have subsequently become indispensable in consumer electronics as well, and are now found in smartphones, games consoles, and fitness trackers. Enclosed in a casing only a few square millimeters in size, the latest generation of MEMS is now capable of performing multiple functions.

The networking of things and services over the internet – in areas such as connected industry and smart homes – is boosting demand for MEMS. Things that were previously "dumb" can now communicate through information gathered by sensors. As a result, the internet of things will soon make inroads into all spheres of life. Intelligently programmed with software algorithms and equipped with microcontroller, miniature battery, and a tiny RFID chip, the sensors can process environmental measurement data and send them over the internet to a smartphone. Over the years, the size of such MEMS sensors has been reduced to a fiftieth of what it once was. Electrical consumption has been slashed so dramatically that the sensors can run all day in a smartphone without having to be recharged. Currently, engineers at Bosch are working on harvesting the energy needed to power the sensors from external sources. In the near future, therefore, it is conceivable that smartphone batteries will get extra support in the form of the kinetic energy produced, for instance, while carrying the phone in a handbag or pocket.

3.0 x 4.5 millimeters

in size, these tiny sensors perform a number of operations, such as measuring acceleration and altitude.

5

billion. This is how many MEMS sensors Bosch has mass-produced since 1995, for a wide variety of applications.

New *worlds*

This is Emanuel Cervantes Zozoya, an engineer at the fledgling location in Guadalajara, Mexico. Here in Mexico's second largest city, Bosch opened its first software engineering and engineering services center in the Americas in April 2014. It is hoped that the center will give an extra boost to calibration services, business intelligence, IT infrastructure, and validation services for external customers, especially from the automotive industry. But Guadalajara also offers support for other Bosch locations. However, what Cervantes Zozoya and his colleagues want is more than just good business. They want to speed up progress in eco-friendly technologies and put their know-how and international experience to work for their country's economic development. And they've already made great strides...

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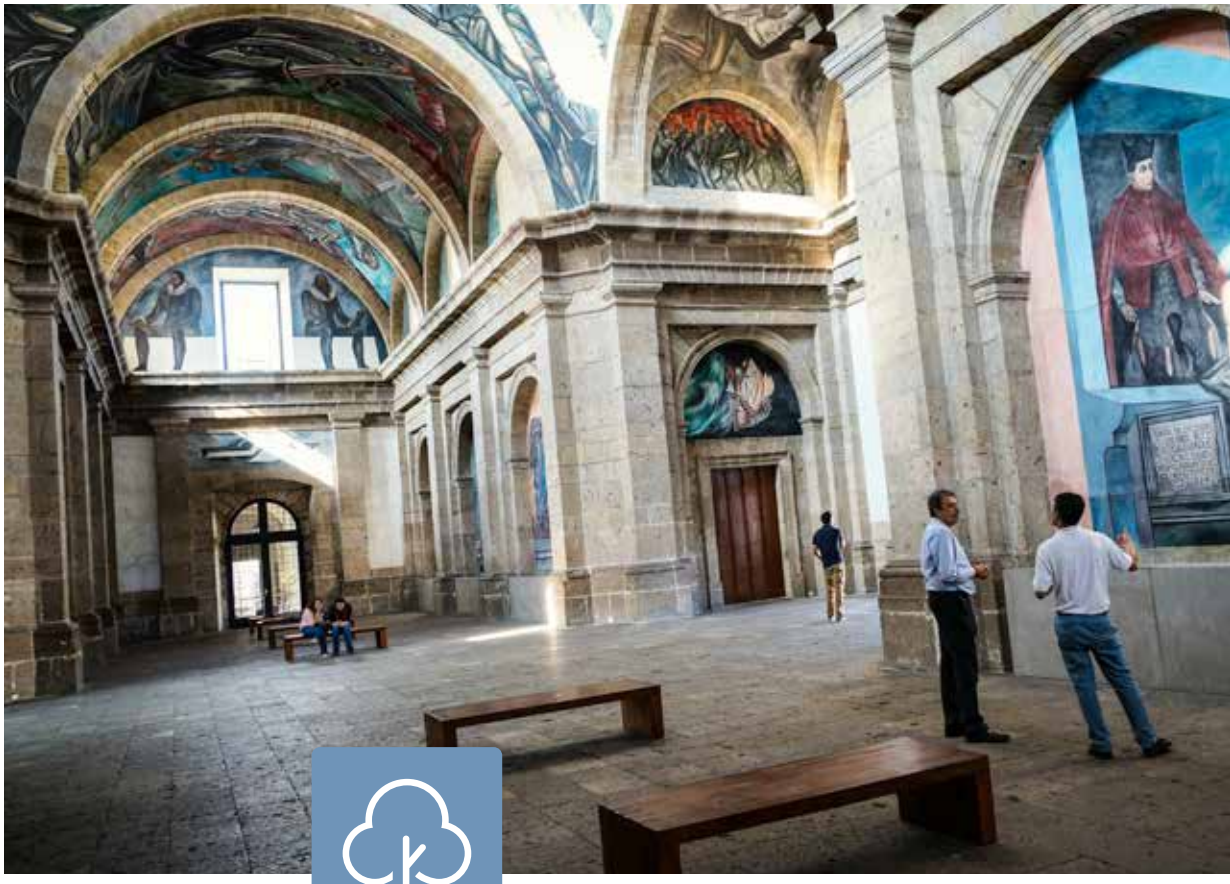
customer-focus



In his leisure time, Cervantes Zozoya shows his Indian boss the sights of Guadalajara – including the famous murals on the walls of Hospicio Cabañas, the former orphanage.

He found his passion early on: “I could barely walk but I was already under the hood with my grandpa, handing him wrenches.” That was in the mid-1980s, deep in southern Mexico, close to the Guatemalan border. Today, Emanuel Cervantes Zozoya lives some 1,400 kilometers away in Guadalajara – one of the most beautiful cities in Mexico, as well as one of the country’s key technology hubs. He has maintained his childhood passion for all kinds of vehicles. But some other things have changed since then.

Cervantes Zozoya is now working on making car engines cleaner and more efficient than ever before. He is one of hundreds of researchers and engineers across the globe developing and improving gasoline direct injection systems at Bosch. This technology enables fuel consumption and emissions to be cut drastically. “Combined with other measures, savings of up to 15 percent are possible,” he says.

After studying mechanical engineering in Mexico and Germany, Cervantes Zozoya worked in the United States. He has long since traded in his greasy wrench for a computer mouse. Above all, his interests are no longer just about coaxing stubborn junkers to run again: “My grandfather had huge, ancient pickup trucks.” Fuel economy was not an issue. “We were happy if they ran at all. It wasn’t unusual to use up to 20 liters of gasoline to go 100 kilometers. Back then, if anyone had told him I would be fighting to conserve every drop of gas, my grandfather would have dropped his oil can in amazement.”

The facility in Guadalajara is one of the newest in the Bosch Group. And it’s also one that shows how international the company is. The center for engineering services and software is part of the Robert Bosch Engineering and Business Solutions (RBEI) subsidiary, which is headquartered in Bangalore, India. “Our investment in Mexico is a logical step,” says Prakash Shenoy. “After all, we want to make it as easy as possible for our customers in the Americas to work with us.” The proximity to customers is critical. As Shenoy says, “The time difference between India and Mexico is eleven and a half hours, and it’s a 30-hour-plus trip. That’s just too much to ensure the level of service we want to offer our customers.”

Shenoy, who is from India himself, heads up the engineering center, and feels very much at home in

“Our investment in Mexico is a logical step. After all, we want to make it as easy as possible for our customers in the Americas to work with us.”

Prakash Shenoy, head of the Guadalajara engineering center

Mexico: “The people are friendly, our colleagues are highly driven, and traffic is less stressful than in India,” he says. The only challenge? He is a vegetarian, which is not always easy in the land of tacos and enchiladas.

Yet he definitely has a taste for his mission: “Setting up this facility is sheer pioneer work that calls for speed and agility. We’re hiring new engineers every week, and seeing our business grow daily.” The associates in Guadalajara offer comprehensive engineering services as well as IT and business-process solutions from a single source. While the center’s main customers are in North America, it serves other Bosch locations as well.

Shenoy and his colleagues are driven by something else, too: “We want to help improve traffic safety in Mexico.” Three million cars are built annually in Puebla, San Luis Potosí, and other Mexican cities. One in three remain in the country, but for reasons of cost, they are not always equipped with all the technology available. “That’s why we also aim to develop automotive technology that is tailor-made for the region,” Shenoy explains. “Local experts support the Bosch divisions, helping them come up with

Engineering partners: Alberto Sabas Hernandez and Ramon Baez Mora from the Bosch supplier Soluciones Tecnológicas, together with Emanuel Cervantes Zozoya.

"We're hiring new engineers every week, and seeing our business grow daily."

Prakash Shenoy, head of the Guadalajara engineering center

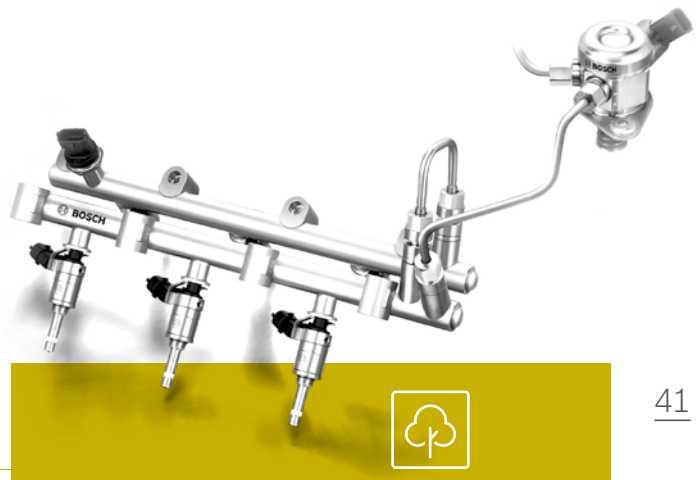
local solutions for the region. The experience we have gained in India in making products appropriate for the region is extremely useful in localizing our products here," he says.

Guadalajara is a good example of Bosch's growth and investment plans in the Americas. In Mexico alone, some 3,000 jobs are to be created by the end of 2017.

A number of them will be in Guadalajara. "Who knows?" Shenoy says with a smile. "Twenty years ago, Robert Bosch Engineering and Business Solutions started out with a handful of associates in India. Today, there are thousands of them."

Emanuel Cervantes Zozoya is equally optimistic. "We anticipate that more and more automakers will start using gasoline direct injection. The share of cars with gasoline engines featuring this technology will likely increase to nearly 30 percent worldwide in 2015." Thanks to strong demand, there is also pressure to develop increasingly efficient components.

This is what prompted Cervantes Zozoya to join forces with other Bosch locations and a local supplier to develop a new test procedure for detecting leaks when the fuel in the distributor rails is under high pressure: "It allows a key leak test to be conducted much earlier than before." Maybe this test will bring us the next, more fuel-efficient generation of engines a little sooner. Then Cervantes Zozoya will have saved more than a few drops of gas. His grandfather would undoubtedly be pleased – and pick up his oil can again...



Gasoline direct injection: a success story

Automotive technology is having to meet ever stricter emissions standards. By 2021, for example, the limit for vehicles in Europe will be just 95 grams of CO_2 per kilometer. One Bosch solution for efficient and economical powertrains is gasoline direct injection. In combination with downsizing and turbocharging, it offers a fuel saving of up to 15 percent. In this system, fresh air enters the combustion chamber through an injection valve. Under high pressure (approx. 200 bar), the fuel is injected into this air flow. This results in an optimum swirl effect and better cooling of the combustion chamber. The overall effect is greater compression and higher efficiency. As a result, cars consume less fuel, yet accelerate more dynamically. In 2012 alone, Bosch sold more than five million such systems. And the forecast for global growth is well into double figures. In 2016, every second new gasoline-powered vehicle in Europe will be equipped with this fuel delivery system, and this share will rise to more than 60 percent by 2020. Demand is also expected to rise strongly in two important automotive markets: the U.S. and China. In both markets, the share of gasoline-powered vehicles is greater than 90 percent. Moreover, emissions standards are becoming stricter there. To be able to keep up with this growth in all these markets, Bosch has manufacturing sites for gasoline direct injection systems in Europe (Germany, Turkey), the Americas (USA, Mexico), and Asia (China, Korea).

Southern Europe apprenticeship initiative

Stepping into *new shoes*

Youth unemployment is alarmingly high in southern Europe, especially in Spain. With this in mind, Bosch decided to offer 50 young Spaniards the opportunity to start a vocational training course in Germany in September 2014. The group includes Laura Revuelta Lopez. The apprentice industrial mechanic seized her chance at the Bosch plant in Nuremberg.

Laura says she has to reshape the metal part. She misjudged it by two millimeters. It will still take a little while before all the dexterity she acquired during eight years of playing the violin carries over to her work. In addition to a certain proficiency with components, her job also requires drilling, rasping, and countersinking skills. At least Laura's German is already fluent enough for her to explain what she does every day, with a little help from her agile hands. And that's a great feeling for a 21-year-old who came from Madrid to conquer a completely new world in Nuremberg. "I'm feliz – happy," Laura says.

At home in San Fernando de Henares, Laura Revuelta Lopez graduated with a diploma from a technical high school. But like so many other young people in Spain, she found this was no guarantee of a career. Undaunted, Laura got a part-time job in the hospitality industry, played the violin in the town orchestra, took Japanese lessons, and volunteered at a senior care center every Friday. Then she read in the newspaper that Bosch was offering 50 young Spaniards the opportunity to do vocational training in Germany. "Is that only for boys?" she asked her mother. The two of them agreed that this was an opportunity not to be missed. Laura applied, was invited for an interview, and the day before Christmas in 2013, she received her acceptance letter. If she hadn't quite grasped the reality of the situation before, having to fill in her shoe size on a form sent to her by the personnel department brought it home. After all, if you want to train as an industrial mechanic at Bosch, you have to wear safety shoes. A preparation phase planned in minute detail by the company followed, including an intensive German course and a six-week on-site internship. Her apprenticeship proper began in September, a long way from home. "My family is concerned, proud, and happy all at the same time," Laura says. In fact, they have no need to worry.

annual-report.bosch.com/apprenticeship-initiative

Laura Revuelta Lopez, apprentice industrial mechanic.

Combating youth unemployment

Bosch has created additional technical vocational training opportunities for 100 young people from Italy, Spain, and Portugal. Most apprentices started at the beginning of the 2014 training year, the rest joining them in 2015. With this program, the company aims to help lower the soaring jobless rates in southern Europe, especially in countries with Bosch manufacturing sites. Fifty of the places in the southern Europe apprenticeship initiative will be at Bosch locations in Italy (20), Spain (16), and Portugal (14). Due to Spain's especially high youth unemployment, another fifty occupational training slots have been created for young people from that country at Bosch locations in Bavaria and Baden-Württemberg. Depending on their location, the Spanish apprentices are trained alongside their German colleagues as industrial mechanics, cutting machine operators, plant mechanics, foundry mechanics, or mechatronics engineers. After three and a half years, the Spaniards receive qualifications from the German Chamber of Commerce.

Laura, Adrian, and David in Nuremberg, their new home.

Nuremberg's Gostenhof district, ground-floor apartment: three bedrooms, living room, kitchen, and bathroom, furnished. It came equipped with everything a household needs. Laura shares an apartment with Adrian (23) and David (22), both Catalonians from Barcelona, who also seized the chance Bosch offered them. For Adrian it was because the jobs he found working at a department store and on the late shift at a bar were not long term, and David switched because his law studies held little promise of steady work later on. In light of that, an apprenticeship in a new country and a new language sounded very tempting. The three have known each other since their internship and have stuck together. Household chores are done according to a plan for cleaning and kitchen duty. "The guys cook more than I do," Laura says. Adrian whips up delicious potato-filled Spanish omelettes. And at the kitchen table, they sit together and study German.

The trio also has Mariana Dantas to thank for making everything run smoothly. A German with South American roots, she interprets and works for Bosch's occupational training partner BBQ, offering intercultural assistance in addition to the support provided by the mentors and trainers. She helps the Spanish apprentices with all kinds of daily activities in their personal lives: finding an apartment, dealing with bureaucracy, opening bank accounts, separating trash for recycling, shopping, as well as planning free time activities – and coping with the repercussions. When David stumbled while playing table tennis and dislocated his shoulder, Mariana was soon on hand to help.

"We want them to find their feet quickly, which is why we give them so much support. Just bringing the young people to Germany isn't enough," Rainer Pickelmann says. He is in charge of the 20-strong group of first-year apprentices, including the three Spaniards, in the technical vocational training department in Nuremberg. In his dual role as a boss and a father figure, he keeps an eye on the three and lends a hand wherever it's needed. When it comes to course content, however, the Spaniards are treated just like everyone else. For the introduction seminar in the Bavarian Forest, he divided his trainees into three groups, with one Spaniard in each. After all, the goal was teambuilding. After a week that included a nighttime hike, orienteering, a rope bridge, and building a raft, Pickelmann could attest to their "outstanding social skills." And he still laughs when he recalls the subway strike in Nuremberg. Not unexpectedly, none of the apprentices made it to work on time at seven a.m. – except the Spaniards, who had taken a taxi. Pickelmann says, "No apprentice had ever done that before." The trainer Kathrin Hiltner testifies to the group's "very special spark." She says Adrian, as the oldest in the group, takes a leadership role with his younger German colleagues. "And I suspect Adrian might be teaching them Spanish on the side," Hiltner says with a chuckle.

The cultural exchange is going full steam. Laura often gets together with the other girls in the training group. Adrian and David talk of an outing with their colleagues to Rothenburg ob der Tauber, a booze-up at the Oktoberfest in Munich, and a visit to an ice hockey game. And Laura says they have so many guests in their apartment that they will finally have to buy some folding chairs. For all these reasons, Pickelmann rates the integration process as "very positive."

Laura can certainly imagine staying here to work after her three-and-a-half year program finishes. Or even going to university. When her homesickness gets the better of her, Laura takes a walk or has a long Skype session with her mother and her two brothers. That way, she can hear and see her family at least once in a while. And, of course, she could hardly wait for her first trip back home over the Christmas holidays. Afterwards, she brought back something she had originally had to leave behind. "My violin," Laura says. "I really missed it."

Laura Kiewiet, student:
"We now use the sunny town square a lot more for events. Today, for instance, we're barbecuing. It's a whole lot more fun in the sun than in the shade."

A place *in the sun*

Winter in the Norwegian town of Rjukan had long been one thing above all else – dark. For six months of the year, the sun doesn't peek over the mountains. The jagged cliffs are just too tall and steep, and the town is too tightly sandwiched between them. But now life in the shadows is over for the residents. Three enormous mirrors on the northern mountain reflect the sun's rays into the valley, illuminating the market square like gigantic floodlights. Drive and control technology made by Bosch Rexroth ensures that the heliostats, as the mirrors are called, accurately track the sun's path and always reflect the light at precisely the right angle. The happy result is that on cloudless winter days, the center of town is now also bathed in light. This has certainly brightened the lives of the inhabitants of the once sun-scarce town.

annual-report.bosch.com/
drive-and-control-technology

Torbjörn Vägsland, baker:
"Whenever midday comes around, my bakery is packed. People come in during their lunch break to grab a snack, then go and enjoy it in the sun in the town square."

Knut Jacobsen, manager of Rjukan Hytteby tourist cabins:
"With the solar mirrors, we've created something very special – and it has brought the whole town closer together."

Laura Kiewiet, student:
"We now use the sunny town square a lot more for events. Today, for instance, we're barbecuing. It's a whole lot more fun in the sun than in the shade."

Martin Andersen, the artist who had the idea of the solar mirrors:
"Journalists from all corners of the globe – from the 'New York Times' to 'Al Jazeera' – came to see the unveiling of the mirrors. The attention we received and the sparkle in people's eyes gave me a great deal of confidence in my work as an artist."

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drive-and-control-technology

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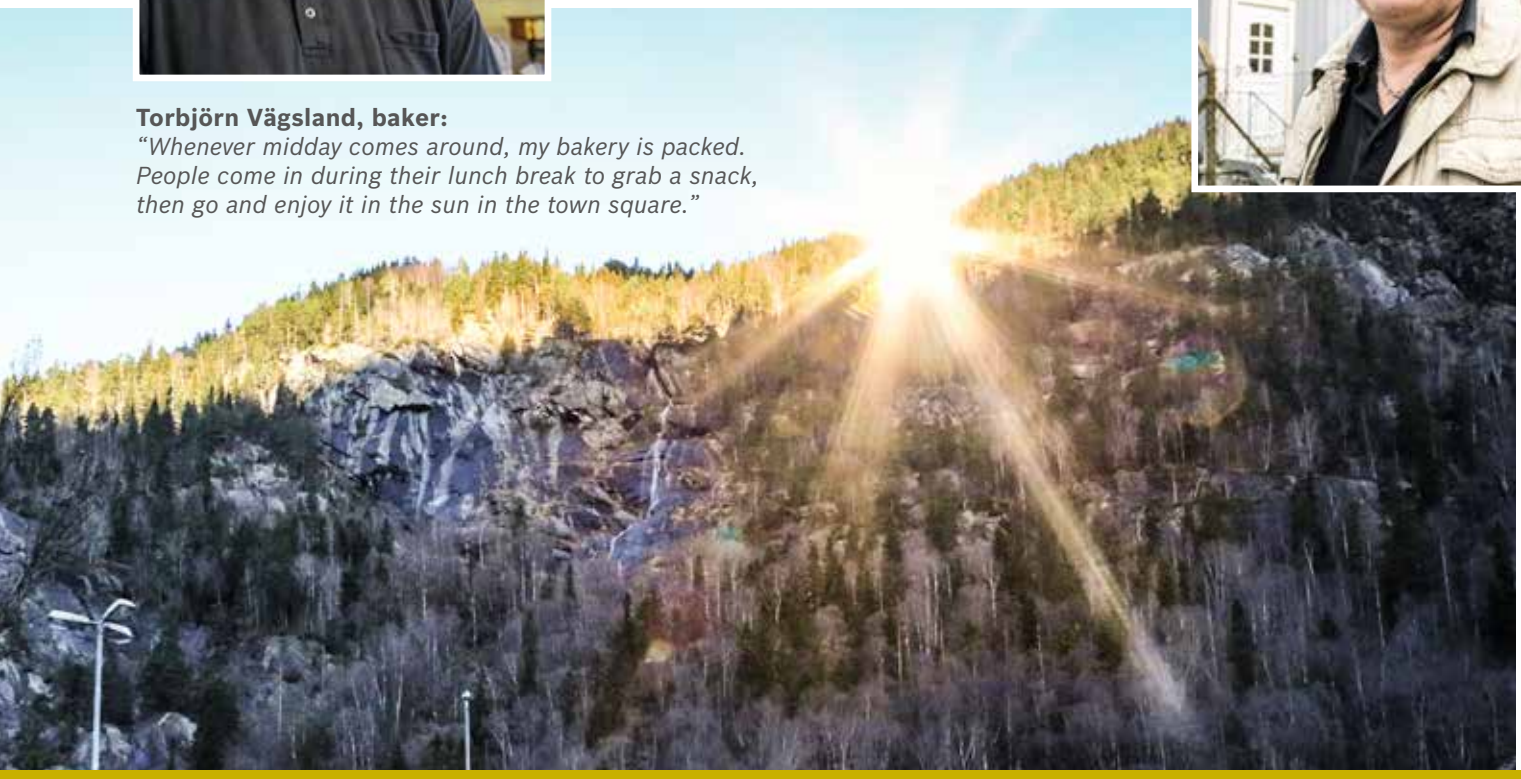


Facts about heliostats*

51 **square meters** is the total area of the three giant heliostats added together.

1.5 **metric tons of wind pressure** acts on each of the three heliostats in force 12 storms. That's more than the weight of an average car.

Three heliostats, each with an area of 17 square meters and weighing 500 kilograms, illuminate roughly 600 square meters of the town square. Throughout the day, the Bosch control system computes the current position of the sun and uses linear drives to align the mirrors so that the reflected rays of the sun illuminate the town square. The mirrors are mounted some 450 meters above the town, where the harsh climate poses the biggest challenge to operating the precision electric linear drives. The mirrors are frequently battered by winds up to force 12, with gusts of 140 kilometers per hour. The Rexroth control unit is not only capable of weathering these conditions, but is also designed for convenient remote maintenance.

*A heliostat is a device comprising a mirror that reflects sunlight toward a predetermined target irrespective of changes in the sun's position.

Steinar Berglund, mayor
"Before, we had to take the cable car up to the top of the mountain if we wanted to feel the sun on our faces in winter. Although we can't illuminate the whole town with the mirrors, we have at least brought light into the town square. It makes me happy to look out of my window and see the people sitting on benches soaking up the sun."

Packaging technology

Ice cream *for everyone*

Zander and Jason.

annual-report.bosch.com/
packaging-technology

About a year ago, Zander Brown was diagnosed with diabetes. After the initial period of shock, the family from Oxford, in the U.S. state of Michigan, is again living an almost normal life. They have a very special nine-year-old to thank for this – as well as a bit of help from the Packaging Technology division at Bosch, which ensures that the insulin he depends on is packaged securely, without any impurities.

It's not the playoffs, but both players are giving it their all. Zander, the one in the blue shirt, dribbles across the asphalt in front of the single-family home on Pine Valley Court in Oxford, then jumps and lobs the ball at the basket. "Dunk it!" his best friend Jason shouts in encouragement. Never mind that a few seconds ago he was trying to block Zander– given the lack of teammates, he's switched sides to cheer on his opponent before the jump shot. The ball swishes through the net, high-fives are exchanged, and Jason puts his arm around his point-scoring friend. Then the two sweaty heroes head across the driveway toward the door, thoughts now turned to convincing Grandma Penny to take them out for ice cream. "I'm living a normal life," Zander says later, "...with just a little extra stuff..."

Zander has type I diabetes – a potentially life-threatening disease. In the United States, some three million people are affected, half of them children. In people with this metabolic disorder, the pancreas no longer produces enough insulin, which can sometimes have serious consequences. This hormone is necessary for the body's cells to absorb energy in the form of sugar, and thus keep glucose levels stable. In the absence of insulin, too much sugar collects in the blood, and this eventually causes major damage to the blood vessels, nerves, and kidneys. Too low a blood-sugar level is dangerous as well, however: patients may lose consciousness and fall into a coma in a matter of only a few hours. Type I diabetes has nothing to do with poor nutrition or other lifestyle habits, science tells us today. It is usually caused by an autoimmune disorder – and there is still no cure for it.

Type I diabetes has nothing to do with poor nutrition or other lifestyle habits, science tells us today. It is usually caused by an autoimmune disorder – and there is still no cure for it.

The shocking news came on one of the first days of summer vacation last year, when the Browns were looking forward to the lazy months ahead. "I'd suspected for quite a while that something was wrong," Zander's mother Debby remembers. Her middle child was suddenly drinking large quantities of water, needed to use the bathroom frequently, and dropped five kilos. When he seemed indifferent during an exciting baseball game and could hardly hold himself upright, they immediately drove to the doctor who confirmed their suspicions: type I diabetes, just like his grandmother. What followed were several days in the hospital, considerable worry,

"I'm living a normal life with just a little extra stuff …"

Zander Brown

and a lot of frightening questions: what did this mean for Zander? What did it mean for the family? How would their lives be different in the future?

But back to Pine Valley Court, after the basketball game. Zander's grandma lives only a few blocks away, and helps Zander's parents look after their three children every day. She gives in to the boys' pleadings: there's ice cream for everyone. Zander knows what he has to do before they drive over to the ice cream parlor. He stands at the kitchen table with his mother and unzips a small, black case. Without blinking, he sticks a tiny needle into his finger and smears a drop of blood on a test strip.

"How much?" Debby Brown asks. "2.55," Zander reads from the tester's digital display. That's currently how many milligrams of glucose his blood contains per deciliter. According to his doctor, 1.5 would be ideal. "And what does that mean?" Zander thinks for a second: "Four units." One to lower his level and three for the soft-serve ice cream he is about to eat. He has to give his body insulin now so that he can stay balanced throughout the afternoon.

From her own experience, Zander's grandmother, Penny, knows the various methods for taking insulin. "For decades, I gave myself insulin shots," she explains. "Filling the syringe is tedious and sticking the needle into yourself is not exactly pleasant. Not to mention the looks you get for fiddling around with a syringe in public." Zander doesn't have a syringe. He carries a small, red object that looks like a writing instrument – an insulin pen, filled on a Bosch packaging machine. The boy turns a dial until the number 4 appears. A quick jab in the upper

Peace of mind
for millions

Bosch Packaging Technology is a globally leading supplier of process and packaging machinery. The Bosch pharmaceuticals expert Dr. Johannes Rauschnabel explains why such machinery has become indispensable for the pharmaceuticals industry.

Mr. Rauschnabel, what does Bosch Packaging Technology have to do with diabetes?

In Crailsheim, Germany, we manufacture machinery for the sterile filling and sealing of insulin pens and vials. And we have several plants worldwide making machinery for filling vials, including a U.S. plant in Minneapolis, Minnesota. All around the world, diabetes patients use insulin pens or vials. In North America, as well as China and India, the share of people using pens is on the increase. Pharmaceuticals companies use our machinery to fill these pens.

How exactly does the insulin get into the pen?

Strictly speaking, our machinery does not fill the pen itself, but the cartridge inside it. It is this glass ampoule that contains the insulin.

Are there any special requirements?

Our packaging machinery has to meet the highest quality standards, as well as being absolutely safe and sterile. To ensure this, most of the sections of our machine lines – which can be up to 20 meters long – are fitted with isolators. These are sterile small chambers arranged along the length of the machine, to which operators have access through installed gloves only. Such machines can process up to 600 vials per minute. They work round the clock, seven days a week, for as many as 21 days at a time.

How does this process work?

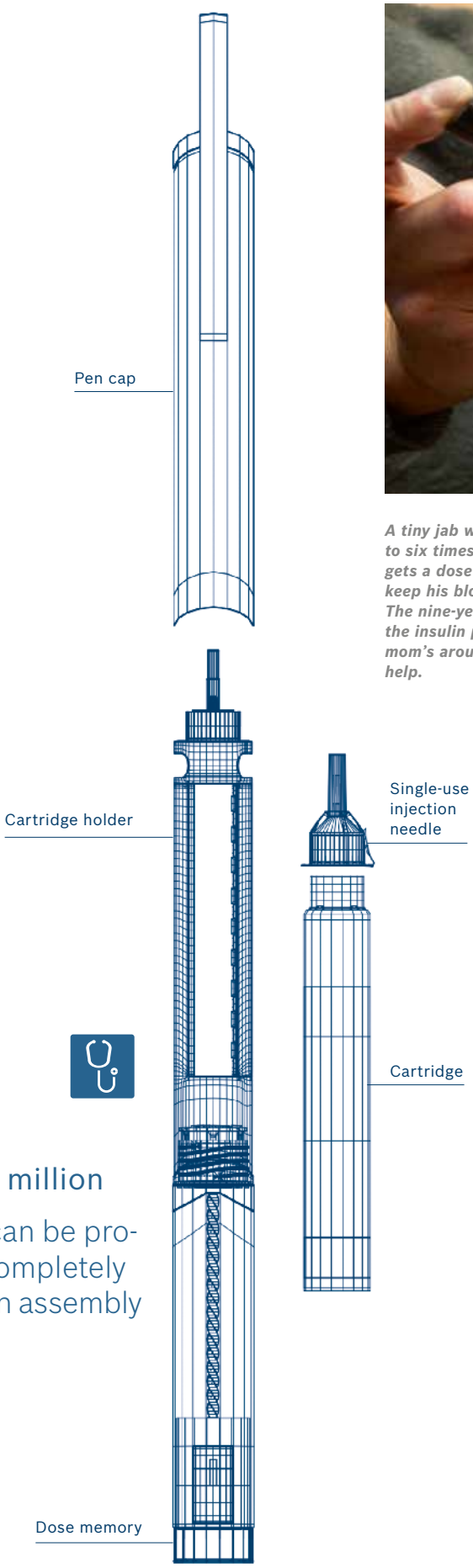
In a first step, the vials are cleaned in a washing machine, then sprayed with silicone. This ensures that the plunger can move smoothly along the inner surface when the dose is being administered subsequently. Following this, the vials pass through a heat tunnel where, at 300 degrees Celsius, they are sterilized and any residual impurities are removed.

And then they're ready to be filled?

Not quite. First, the bottom end of the vials has to be sealed with a plunger. When that has been done, the vials are filled to 90 percent of their capacity. When it comes to the final 10 percent, special precision is called for. There should be no spills of surplus insulin, nor should there be any air left in the vial. To achieve this, a special technique is used, with a laser sensor scanning the surface of the vial neck. As soon as the surface of the liquid reaches the aperture, the machine stops the filling process.

Why is it so important for the vials to be absolutely full?

One reason is that any air in the vial could cause deviation from the dose set by the patient. The process ends with a further thorough check for quality and safety. As many as ten camera systems test the vials for scratches on the glass, particles in the liquid, and properly fitted caps – and that's not all. The product is labeled and inserted in the pen, which is then packaged. Finally, it leaves the plant of our pharmaceuticals customer, bound for one of the roughly 50 million diabetes patients worldwide.



50 million

units a year can be produced by a completely automatic pen assembly machine.

A tiny jab with a huge effect: Four to six times a day, Zander Brown gets a dose of insulin. It helps him keep his blood sugar in balance. The nine-year-old can already use the insulin pen himself. But if mom's around, he's glad to let her help.

arm and he's done. The entire procedure lasts barely three minutes, and the ice cream taxi is on its way.

This routine of testing and injecting repeats itself in Zander's life four to six times a day: in the morning, evening, sometimes at night, and at school before lunch. Each day at 12:15, he leaves the classroom while the other students in 4a are still reading or solving math problems. He grabs his pink backpack where he keeps his fruit chews (which he always carries in case his blood sugar falls too low), and walks down the long corridor to the office of the school nurse. She sometimes helps him out a bit with the pen. "Zander is unbelievably resilient and reliable," says Mrs. Peruski, his teacher at Clear Lake Elementary School. "He never forgets that his body needs this special care." Zander's father explains: "He copes with this disease like a champion. He never complains. And the confidence he exudes makes everything so much easier for us as his parents."

In the evening, Zander sits at the table in the living room and paints. The shelf near the television displays his most recent work: a magnificent pink frog with yellow feet, a full-page profile of a rhinoceros, and a realistic, detailed drawing of Buzz Lightyear. A year ago, he had the idea of exhibiting his pictures and selling them for a good cause. “My best friend Jason has a congenital heart defect. I thought the money could help doctors do more research and maybe help him,” Zander says. The last exhibit brought in an impressive 400 dollars. Since he found out that he has diabetes, he splits his donations in half between heart research and a foundation that specializes in research into juvenile diabetes.

Quiet *enthusiasm*

Stuttgart is a byword for mobility. This is where the first automobile was built, and where international automakers and suppliers are developing the mobility solutions of the future. In this respect, one important goal is creating livable cities without excessive traffic noise and particulate matter. The Bosch associate Daniel Betsch has seen for himself what this future looks like. Join us as we go with the electromobility enthusiast on a – quiet and emissions-free – tour of Stuttgart.

annual-report.bosch.com/
e-mobility

The range increases again because the Fiat is recovering energy during the downhill run and storing it in the battery. Betsch gives it its technical name:

"It's called recuperation."

Daniel Betsch has just put the key in the ignition of his Fiat 500e. He's applied the requisite pressure with his thumb and forefinger, the key has turned in the cylinder, and the indicators on the dashboard have illuminated. But something is missing, at least from the perspective of an electric-car neophyte: there is no sound of an engine springing to life. In fact, there is no sound at all. Time seems to stand still for a second before a quiet chime indicates that Betsch's Fiat is running. The Bosch associate never tires of this silence when starting the motor and driving off. Smiling, he gazes out into the noisy world beyond the windshield before steering his electric car onto Stuttgart's Rotebühlstrasse, making hardly a whisper as he goes. His first destination is Kräherwald, a residential neighborhood on a hillside overlooking the state capital.

Betsch is what marketing experts call an "early mover." Twelve years ago in his parents' basement, he built his first electric bike, with a front wheel from a wheelbarrow: "I needed it for adjusting speed," the mechatronics engineer says, as though it were the most natural thing in the world. With the same quiet self-assurance, he goes on to narrate other milestones in his electromobility career – his first electric scooter, for example, and the converted electric, tropical-look Trabant. He talks about his e-mail to the former Bosch CEO Franz Fehrenbach, whom he asked to advocate electric charge spots at Bosch locations. All the way to setting up Bosch's own electromobility club, which Betsch has led since its inception.

The Fiat 500e is now winding its way up the serpentine bends of Zeppelinstrasse. As the houses get bigger, the cars on the roadside get more expensive. Betsch points to a Porsche Panamera at the side of the road, immediately recognizing what is special about it. As his work involves testing hybrid vehicles, he knows that this plug-in hybrid features Bosch technology. The same goes for more than two dozen other models, from the eGolf, to the BMW i3 Range Extender, to the Fiat 500e in which Betsch is now sitting. A little later, Betsch passes two women cycling up the hill. Despite the shopping bags on their handlebars, they seem to be effortlessly mastering the steep incline. It takes a second glance to notice the slim battery fixed to their bicycles. Chances are that they are benefiting from Bosch technology, too. Every one in four electric bikes currently sold in Europe uses a Bosch drive system.

Quiet

ciate Daniel Betsch has seen for himself what this future looks like. Join us as we go with the electromobility enthusiast on a – quiet and emissions-free – tour of Stuttgart.

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e-mobility

More than
50
bicycle brands use Bosch e-bike systems: from cargo bikes to mountain bikes.

400
million euros is the amount Bosch invests each year in e-mobility research alone: a project that involves more than 1,800 associates.

More than **120**
million e-scooters now thread their way through the traffic jams on China's roads.

2.5 **million** electric vehicles and 9.5 million hybrid cars will be manufactured worldwide in 2020 – out of a total of 113 million vehicles, according to Bosch forecasts.

Fully recharging a standard e-scooter in China costs the equivalent of
60 **euro cents,**
and gives the rider a range of roughly 100 kilometers. Driving the same distance in a gasoline-powered car would cost 4 euros in China.

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The triumphs of automotive technology have had a lasting effect on Stuttgart. Top international automakers and suppliers have their headquarters there. Alongside Bosch, Daimler, and Porsche, these include numerous small to medium-size companies pushing technology to global market level in their own particular niche.

All of them are exploring ways of making mobility less noisy and less polluting. In an initiative spearheaded by the state of Baden-Württemberg – the Electric Mobility South-West cluster – experts from the business, scientific, and political spheres are working together on new ideas. "In the cluster's BIPoL-plus project, for example, Bosch is contributing to research on inductive charging systems for battery-powered cars," Kerstin Mayr explains. The Bosch associate from corporate research and advance engineering is innovation field manager at the cutting-edge cluster. The move toward more electromobility is evident in the cityscape as well. As part of the car2go car-sharing service, 500 electrically powered Smarts have already taken to the streets in Stuttgart – that's more than in any other European city. These and other electric vehicles can be recharged at over 400 charge spots.

The Fiat 500e – for which Bosch supplies the electric motor, the power electronics, and the battery – continues along a very special section of Kräherwaldstrasse. It is part of a 66-kilometer-long stretch that is the measure of all things for various automakers. On this circular course in and around Stuttgart, engineers find everything from extreme gradients and sections of freeway to winding overland routes – all the conditions needed for conducting real-life tests of their alternative powertrain systems. The loop was developed by Bosch in collaboration with the University of Stuttgart.

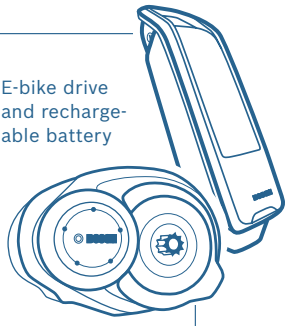
On the B295 highway down into the valley toward Feuerbach, traffic is sparse for a change and the Fiat makes good headway. Daniel Betsch points to the numbers that light up in quick succession on the display under the speedometer. "60 km, 80 km, 110 km..." The range increases again because the Fiat is recovering energy during the downhill run and storing it in the battery. Betsch gives it its technical name: "It's called recuperation." So once he's hooked up to the charge spot at the Bosch site in Feuerbach, he needs only a quick charge to fill up the battery again. Just long enough for a short chat with Thomas Igler, a friend from Bosch's electromobility club, who is charging his Nissan Leaf in the parking space next to him. Igler tells him about his trip to the Black Forest the previous weekend. Even over long distances, he and his girlfriend drive in all-electric mode. But they always carry a collection of about three dozen charging cards offered by various suppliers. The two electric car enthusiasts agree: "If we want more people to use alternative powertrain systems, we have to have standardized charging and billing systems across Germany." This is something Bosch is also working on.

Classic car rebooted: Daniel Betsch's revamped Golf 2 Citystromer has a range of 300 kilometers.

The Bosch associate never tires of this **silence when starting the motor and driving off.**

The Bosch subsidiary Bosch Software Innovations already offers a software solution that makes it possible for a recharging card to work anywhere. Like a debit card, it can be used to recharge the car at charge spots operated by any number of providers. In addition, the Bosch subsidiary offers a smartphone app that makes recharging and paying convenient and easy, regardless of provider and without the need for countless cards or contractual obligations.

The tour in the Fiat 500e is almost at an end. Betsch drives the demo car, which is not even officially for sale in Germany yet, back to the western end of Stuttgart where his trip began. For the ride home, he gets into his own car, which is almost as old as he is. Naturally, his converted 1985 Golf 2 Citystromer is also electric. Its driving range is an impressive 300 kilometers. The trunk contains 576 batteries from discarded impact drills and lawnmowers – officially validated for safety – that store the electrical energy. Betsch puts the key in the ignition and starts the motor. With a smile on his face, he glides silently off into the distance.



E-bike drive and rechargeable battery

How Bosch is helping make electric driving reality

When it comes to e-mobility, Bosch has a broad portfolio. The company offers its customers powertrain systems for hybrid and electric vehicles. This includes electric motors, power electronics units, charging devices, and batteries, as well as regenerative braking systems. In the two-wheeler segment as well, Bosch is moving e-mobility forward. On the one hand, the company is Europe's leading supplier of e-bike drives and components for more than 50 manufacturers. On the other hand, it supplies e-scooter drive systems for the Chinese market, where there are already 120 million electric scooters on the roads. Finally, the new software solutions offered by Bosch allow the charge spots of one or several operators to be networked with each other. Drivers can then use their smartphone to find and book the nearest available charge spot, regardless of provider or place. In addition, Bosch software solutions make it possible to network diverse mobility solutions – car-sharing schemes, bike-sharing schemes, and public transportation – with each other. To find out how e-mobility could work in practice, Bosch is working with more than 100 partners from business, academia, and politics as part of the "LivingLab BWe mobil" initiative. In roughly 40 projects, some 2,000 electric vehicles are to be put on the roads by 2015, and more than 1,000 charge spots installed in the Stuttgart region and the city of Karlsruhe.

Seeing *with new eyes*

India: agility and outside-the-box thinking have allowed a small team to tap into major opportunities well outside the company's core business.

annual-report.bosch.com/
innovative-business-ideas

Despite all that's at stake, Basepere Lakshminaranaya is a picture of calm. He runs a small sari-weaving mill in Bangalore. Every year, over 600 of the colorful garments leave his cramped workshop, where the looms that clatter away date back to the era when India was still the jewel in the British Empire's crown. "I have to be able to see every thread in a sari to make sure it's perfect," says Lakshminaranaya. "Without good eyesight, I might as well close up shop."

Lakshminaranaya has been wearing glasses for a long time now. "But over the past few weeks, my vision has become blurry." Worried, he's stopped in today at the Punarjyoti Eye Hospital around the corner, where Dr. Kushal Raj is examining his eyes. The doctor is using an unusual device to perform the exam: a small, compact fundus camera. Made by Bosch, it may help keep many Indians from losing their sight.

"Until recently, performing a retinal exam was a laborious process," Dr. Raj explains. "We had to put drops in the patients' eyes and have them sit for a long time with their head in an uncomfortable apparatus. Now,

*"We began searching for technology that would put fast, **affordable eye examinations within reach.**"*

Nakul Goswami, manager responsible for the eye care project

we skip the drops and simply raise the camera up to the eye. Within a few seconds, we have a clear image of the fundus."

The fundus camera was developed by a new business team (NBT) at Bosch in India. "We're deliberately on the lookout for growth areas outside the company's core business areas," says Harsha Angeri, who heads up the NBT in Bangalore. "And we aim to offer world-class technological solutions that initially address local problems." The fundus camera is a response to just such a grassroots challenge: India has more blind people than any other country. In many cases, their vision loss could have been prevented by early diagnosis.

"That's why we began searching for technology that would put fast, affordable eye examinations within reach," says Nakul Goswami, who manages the Bosch eye care project. The solution came from an unexpected source – the Bosch plant in Stuttgart-Feuerbach, Germany. "There, they use a special camera with software algorithms to locate the tiniest hairline scratches on diesel pumps," Goswami explains. "Whether you are looking for such defects on diesel pumps or retinal damage, the

Seeking clarity: After performing an exam with the fundus camera, Dr. Kushal Raj (right) explains the diagnosis to his patient Basepere Lakshminaranaya.

principles behind the image analysis are the same." Similar software was then written on the basis of the core algorithm from Germany.

Of the many NBT projects currently being carried out in India, the fundus camera is the most advanced. "We are also examining related applications in healthcare and other diagnostic areas," the NBT manager Hulikal Nagendra explains. "They're currently in the trial phase or being subjected to practical tests by customers. The same stage of development has been reached in another NBT project: an intelligent, non-invasive energy metering device. It can be used across a business network, such as a chain of coffee shops, to precisely measure the energy consumption of individual machines and highlight potential savings."

And it doesn't end there. It is hoped that an innovative and robust water filtration system will soon make clean drinking water affordable for schools, as well as for rural or impoverished communities. All these projects offer appropriate solutions for the everyday challenges encountered in India – and can be easily put into use in similar regions as well, such as in Africa. "While thinking and acting like a small start-up," Hulikal Nagendra says, "we are able to harness the skills and resources of the entire Bosch Group."

In the end, it is Basepere Lakshminaranaya and his sari workshop that benefit from this global network. It takes only a few seconds and Dr. Kushal Raj has the diagnosis: diabetic retinopathy. Due to the complications of his diabetes, Lakshminaranaya's retina has been damaged. "The camera's images let me show each patient right away what's going on inside their eyes," Raj says. The yellow spots around his optic disc convince Lakshminaranaya of the need to operate: "I was hesitant at first, but now I know I must get it done."

The next morning, the laser operation takes only about an hour. But for years to come, Lakshminaranaya will be able to keep a sharp eye on every single thread, and continue to produce flawless saris.

Net-*works*

When associates log on, the display shows precisely the information they need for their work.

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connected-manufacturing

If different parts are needed for rapidly changing tasks, green signals on the grab containers make it easier to stay on top of the job.

Connected industry is the subject of an initiative launched by the German government. Also known as "Industry 4.0," it is ushering in a new era in manufacturing. At its hydraulics plant in Homburg, Germany, Bosch Rexroth is proving that intelligently networked high-tech production really does live up to expectations of flexibility, productivity, and quality. And associates benefit, too.

Associate ID 4.0.

The Bosch Rexroth hydraulics plant in Homburg is a testimony to the company's efficient manufacturing facilities at their best: extraneous stock is nowhere to be seen, everything is on hand and in its rightful place – the flow of production is unimpeded. The jewel in the crown is a new production line dedicated to electrohydraulic valves for tractors. The observer is struck not only by the cleanliness and tidiness, but also by the many monitors. They show what the intelligent electronics that set the pace here are doing. Workpieces communicate with machines, machines communicate with one another, and everything – including the workstations – communicates with the manufacturing associates. The latter receive analyses of the data streams and assess the collected information to safeguard quality and ensure smooth running. The networked equipment helps the people on the ground implement ongoing improvements to the production process. At the same time, these advances in automation and connectivity herald a new style of manufacturing that is enhancing Germany's appeal as a manufacturing location. The result is remarkable efficiency. Or, to quote the technical plant manager and engineer Frank Hess: "Information technology gives us a great degree of flexibility and has changed the nature of our work." Hess is the man in charge of this factory of the future, which is currently taking shape under the production principles of Industry 4.0.

The history of manufacturing has often been punctuated by groundbreaking innovations – the invention of the power loom in 1784, the introduction of the conveyor belt in 1870, and the advent of computer technology in 1969. The incentives driving these breakthroughs were always the same – increased productivity, enhanced quality, and assured success. In tandem with these developments, the work people did became much safer and physically less strenuous. Not only did this protect workers' health, reduce accident numbers, and boost motivation, but employee productivity also rose while error rates dropped. Now Industry 4.0 is ushering in the next industrial revolution, which promises to be just as beneficial. The industry association BITKOM estimates that the new technology has the potential to generate some 80 billion euros by 2025 for Germany alone.

A production line based on Industry 4.0 principles comes with a slew of workstation conveniences for associates. At the start of each shift, associates log on at the selected workstation. This is done via a Bluetooth tag with a user profile. Thanks to this information

exchange, the workstation is automatically personalized for each individual. The monitor slides into place and displays the requested assembly stages as 3D animations with detail appropriate to the user's position and qualifications. A workstation also recognizes when a user has not been active at the terminal for extended periods, and provides the latest updates and changes in his or her preferred font size and mother tongue. And that's not all. The LED lights are dimmed depending on daylight intensity so as to support the body's biorhythms and take the strain out of shift work.

Together with production line flexibility, the personalization of workstations is one of the great benefits of Industry 4.0. To ensure that nothing interrupts the production flow, red and green signals on the grab containers help workers at assembly stations to reach for the right component even when there is a rapid changeover on the line.

What sets Industry 4.0 solutions apart, however, is that the value stream adheres to a new logic. This is partly dictated by wireless standards for data transfer using RFID (radio frequency identification) technology. Every part is fitted with an RFID chip in the workpiece carrier, which allows it to manage its progress along the line, requesting execution of the relevant process steps and materials at the various assembly stations. Consequently, the line is no longer centrally controlled as was previously the case. Instead, the machines themselves play an important role in determining the workflow by signaling availability, maintenance requirements, and faults via activeCockpit, the newly developed production information and control system. But it is still a human who makes the final call. As all information is instantly at their fingertips, workers receive the best possible support in their production planning.

The network linking the people, machines, and workpieces involved in manufacturing electrohydraulic valves for tractors ensures a faster workflow. In fact, achieving higher speeds by any other means is a tall order. The farming equipment industry, which for 50 years has been supplied with parts from Homburg, has great faith in high-tech tractors. Premium-quality electrohydraulic valves are crucial to the operation of agricultural machines and accessories. Each customer has individual specifications, and large batch sizes are the exception rather than the rule. For this reason, production has to be flexible. Across the various Bosch Rexroth product families, 250 variants

*"Information technology gives us a great degree of flexibility and has **changed the nature of our work.**"*

Frank Hess, technical manager of the Homburg plant

comprising 2,000 components are on offer. Conventional manufacturing can only cope with a mix of two product families' variants. Operating in conjunction with and just across the way from the traditional systems, the Industry 4.0 line handles six product families and constant switchovers without skipping a beat. That saves on setup times and opens the way for rapid responses to customer requests. As Hess says, "This flexibility guarantees us a competitive edge going forward."

With 50 pilot projects running around the world, Bosch is proving that industrial production in all sectors can receive a boost from the benefits of Industry 4.0. What's more, networking people, machines, and workpieces has by no means exhausted connectivity's possibilities. Looking ahead, there are plans to expand into other dimensions, such as by integrating suppliers and customers into the digital communications. For one thing, this promises the best possible dovetailing of logistics and production. For another, the volumes of data collected are set to ensure even faster, more consistent quality controls than previously. Even after a product comes off the conveyor belt, it remains a part of the network and continues to be monitored. Faults, susceptibility to failures, and lifespan can be called up at any time and conclusions drawn about the production process.

Despite the pervasiveness of technology in Industry 4.0, people remain at its heart. As Hess explains, "That was important to us. Even in the future, we won't be able to do without people." In order to successfully adapt to this new working environment, manufacturing experts and planners have to rethink their roles. Part of the process is learning to work with and understand IT to an extent never required before. And the IT professionals, too, have to face completely new challenges. Dedicated software will be needed in the future to keep any kind of production line running smoothly with the help of Industry 4.0. Programmers are generally not production experts, nor do logistics issues or supplier challenges fall within their purview. But a command of these skills will increasingly be expected of them, which in turn will create whole new job profiles.

Keeping a finger on the pulse of these developments is very important to Bosch. "We see ourselves as more than just a leading exponent – we also want to be a leading provider," Hess says. This means Bosch not only intends to convert its own value streams to Industry 4.0, but also aims to selectively develop the components, systems, and services for connected manufacturing and supply them to its customers. Providing the knowledge, experience, and trial runs – as well as data security – for all this falls to Bosch's own associates. As a leading provider, Bosch is committed to ensuring that data remains on servers that belong to the company.

The future has already arrived in Homburg – and it's connected. Hess is proud of the new line. "We are basically in a position to also produce one-off items," he says. Batch sizes of one – that used to be every production manager's nightmare scenario. For Industry 4.0, it's business as usual.

Message from *Hot Heinz*

Dishwashers, ovens, fridges – growing numbers of household appliances are going online. They can be controlled by app and send messages directly to the owner's smartphone. With its Home Connect software, Bosch is keeping people and machines in touch – in places such as a kitchen in the west of Munich.

Claudia Häpp with her husband Christoph.

Hot Heinz never lets its owners down. As soon as the oven has finished its work, it reports immediately to Claudia Häpp. A message on her smartphone tells her that the potato gratin is done. She had prepared it in the morning and sent the command to start baking from the office, so that it would be ready just in time for her return. As Claudia opens her front door in the west of Munich, Heinz is cooling down. Claudia and her husband Christoph share their home with Hot Heinz – as they've christened their oven. "Cute name, don't you think?" says the 36-year-old, who heads up the Home Connect project at BSH Hausgeräte. The project focuses on connecting household appliances to the internet and facilitating their remote control via a smartphone or tablet app. They will be followed in fall 2015 by fridges, washing machines, dryers, and fully automatic coffee machines. Networked ovens and dishwashers came onto the market in December 2014. The internet of things is making inroads into kitchens and utility rooms. It means part of the housework can be done without anyone being at home, and this greater flexibility promises to translate into more free time for users.

The project manager Claudia Häpp and some of her colleagues also double as appliance testers. So she has already put her oven through its paces with marble cake, pizza margherita, and puff pastry turnovers. A lemon cake à la Heinz currently sits on her dining table. "One of the app's features is that it suggests recipes tailored to the individual appliance and transfers settings such as baking time, cooking mode, and temperature directly to the oven at a tap of the finger," Claudia explains. These customized, "triple-tested" recipes are a huge hit with users. "Using the recipes, I can also automatically create shopping lists and send them to myself or to friends via email or text," Claudia continues. The result is that people and machines are more closely connected – and there's less chance of anything going wrong, since Hot Heinz also has his eye on things.

Just what today's ovens and other appliances are capable of can be discovered in the app through easy-to-understand text, graphics, and explanatory videos. The dishwasher, for instance, lets users know how much water and power each mode consumes. "I much prefer looking through that kind of thing on a large tablet screen than trying out each setting individually on the appliance itself," Claudia says. One of the main advantages of the Home Connect app is the remote control function that can be used on the go. "I also feel more secure knowing exactly which appliance is currently on or off," the project manager says. And, there's no doubt it's a big help if the dishwasher sends a

annual-report.bosch.com/
networked-household-appliances

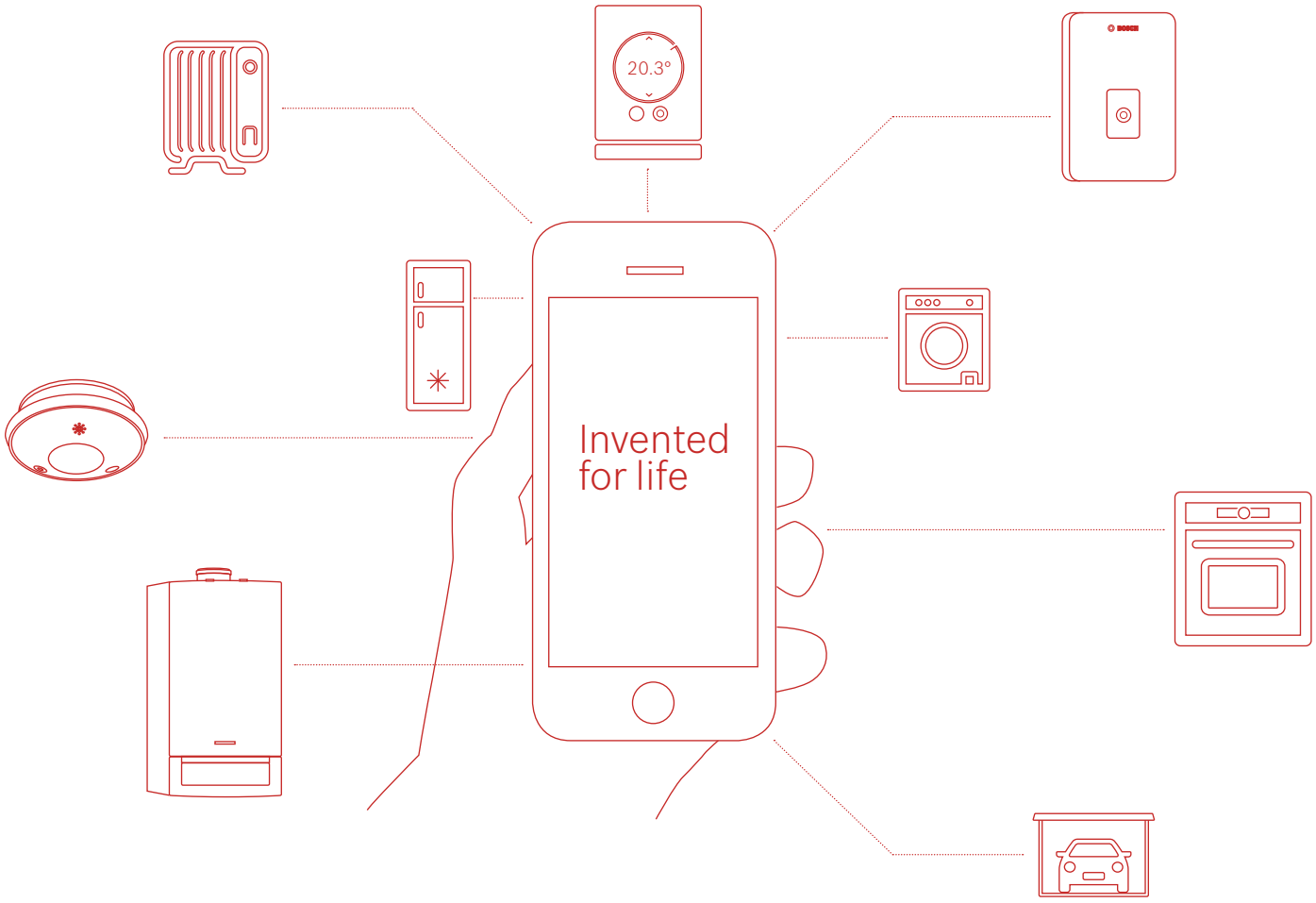
message to say that the rinse aid is almost empty, particularly if you just happen to be standing in the supermarket.

Home Connect is designed as an open system, so that in the future other manufacturers will also be able to use it for the control of their appliances. “As an open platform for connected household appliances, the system will help standardize smart-home solutions,” Häpp says. More than anything else, users expect apps to work fast and glitch-free. This is why the developers have conducted numerous household trials to test whether the system is easy to operate and the data transfer runs smoothly. The appliances that are set to reach the market in the fall, such as the connected fridge with built-in camera, also meet these requirements. Since the system can take photos of the fridge contents and send them to a smartphone, shopping no longer has to be guesswork, even if the list has been left at home. “My husband – who is also a big Home Connect fan – is really excited about that,” the project manager says. He has apparently already asked her a few times about when the next update for Hot Heinz is coming out. And there will be plenty of those in the future. Customer service, for instance, will soon be able to perform maintenance on appliances remotely.

Lambda sensor.

Out of the car and into the oven

The new Bosch ovens are not just networked but also boast new technology. Based on indirect measurements of baked goods’ moisture levels, the PerfectBake sensor automatically adjusts the baking process and switches the oven off when the cake, bread, or quiche is done to perfection. The concept behind this sensor technology comes from the automotive field, where sensors have to provide accurate readings despite high temperatures. The household appliance experts took their cue from Bosch lambda sensors, which have featured in vehicles with closed-loop catalytic converters for almost 40 years now. There, they measure residual oxygen levels in exhaust fumes.



Bosch wants to use technology that is "Invented for life" to improve quality of life. Smart home solutions are just one of many examples of how Bosch wants to achieve this in the future.

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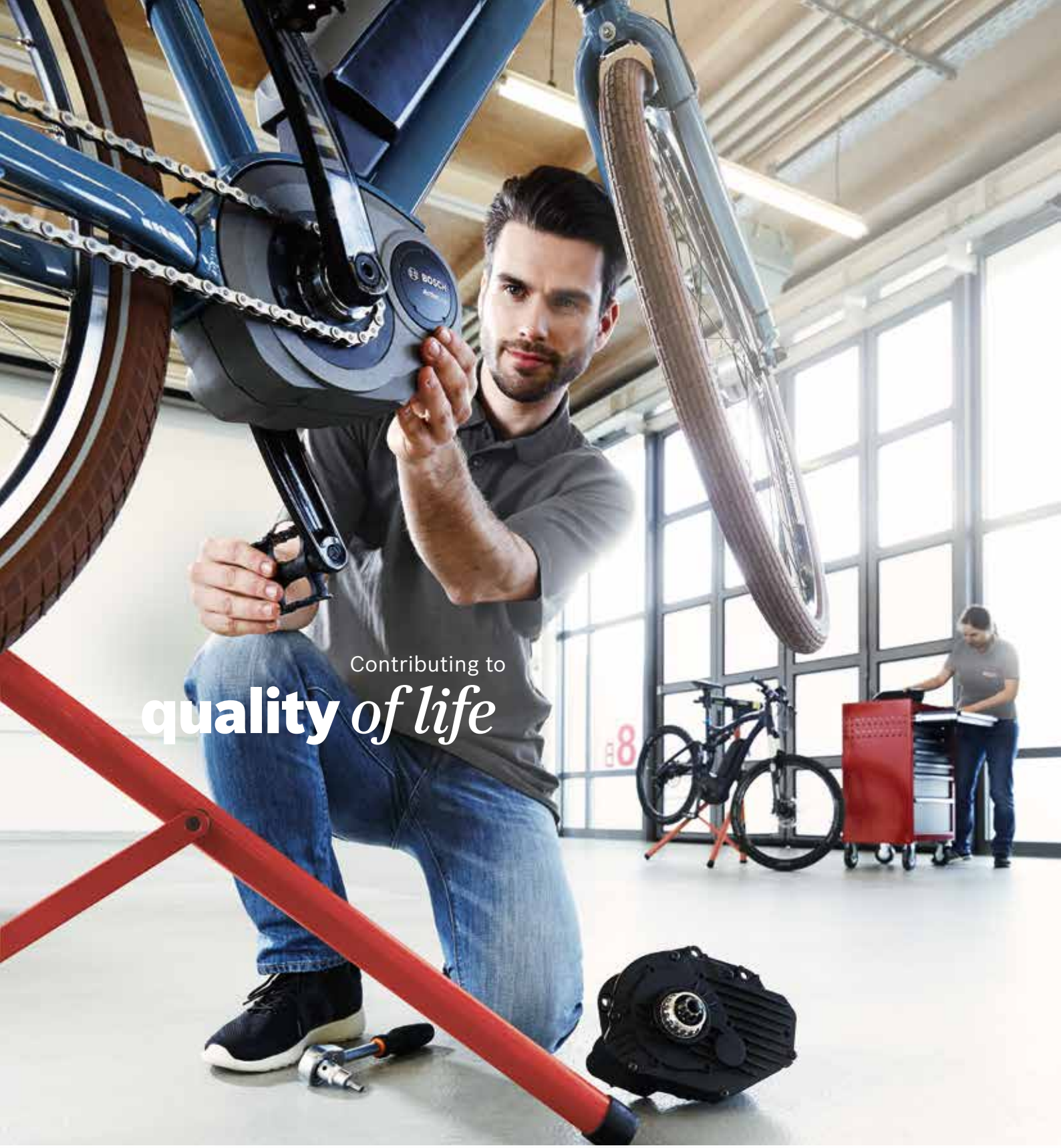
BOSCH
Invented for life



Annual report **2014**

BOSCH
Invented for life

The Bosch Group is a leading global supplier of technology and services. In 2014, its roughly 290,000 associates generated sales of 49 billion euros. Its operations are divided into four business sectors: Mobility Solutions, Industrial Technology, Consumer Goods, and Energy and Building Technology. The Bosch Group comprises Robert Bosch GmbH and its roughly 340 subsidiaries and regional companies in some 50 countries. If its sales and service partners are included, then Bosch is represented in roughly 150 countries. This worldwide development, manufacturing, and sales network is the foundation for further growth. In 2014, Bosch applied for some 4,600 patents worldwide. The Bosch Group's strategic objective is to create solutions for a connected world. Bosch improves quality of life worldwide with products and services that are innovative and spark enthusiasm. In short, Bosch creates technology that is "Invented for life."

The company was set up in Stuttgart in 1886 by Robert Bosch (1861–1942) as "Workshop for Precision Mechanics and Electrical Engineering." The special ownership structure of Robert Bosch GmbH guarantees the entrepreneurial freedom of the Bosch Group, making it possible for the company to plan over the long term and to undertake significant up-front investments in the safeguarding of its future. Ninety-two percent of the share capital of Robert Bosch GmbH is held by Robert Bosch Stiftung GmbH, a charitable foundation. The majority of voting rights are held by Robert Bosch Industrietreuhand KG, an industrial trust. The entrepreneurial ownership functions are carried out by the trust. The remaining shares are held by the Bosch family and by Robert Bosch GmbH.

Bosch Group business sectors

Mobility Solutions
(formerly Automotive Technology)
Gasoline Systems
Diesel Systems
Chassis Systems Control
Electrical Drives
Starter Motors and Generators
Car Multimedia
Automotive Electronics
Automotive Aftermarket
Automotive Steering[1]

Industrial Technology
Drive and Control Technology[2]
Packaging Technology

Consumer Goods
Household Appliances[3]
Power Tools

Energy and Building Technology
Thermotechnology
Security Systems

[1] Robert Bosch Automotive Steering GmbH (formerly ZF Lenksysteme GmbH, or Steering Systems division; company is included in the 2014 financial statements at equity; takeover completed on January 30, 2015)
[2] Bosch Rexroth AG (100% Bosch-owned)
[3] BSH Hausgeräte GmbH (formerly BSH Bosch und Siemens Hausgeräte GmbH, included in the 2014 financial statements at equity; takeover completed on January 5, 2015)

We are Bosch

Our **objective** – what we want to achieve

In the spirit of Robert Bosch, we aim to secure our company's future by ensuring its strong and meaningful development and preserving its financial independence.

Our **motivation** – what drives us

Invented for life: we want our products to spark enthusiasm, improve quality of life, and help conserve natural resources.

Our **strategic** focal points – what will help us succeed

Focusing on customers
We understand our customers' requirements. We tailor our products to them, and we create innovative business models.

Shaping change
We shape change and seize the opportunities it brings, especially in connectivity, electrification, energy efficiency, automation, and the emerging markets.

Striving for excellence
We measure ourselves agains
is fast, agile, and accurate. Ef
high productivity secure and

Our **strengths** – what we do well

Bosch culture
Worldwide, our distinctive corporate culture is a common bond. We live by our values and strive for continuous improvement. We are proud to work for Bosch.

Innovation
Our creativity is the basis for new technological solutions that translate into best-selling products. We are innovation leaders.

Outstanding quality
We deliver products
reliability. In this way
and expectations.

Our **values** – what we build on

Future and result focus
Our actions are result-focused. This allows us to secure our future. It also creates a sound basis for the social initiatives of the company and the foundation.

Responsibility and sustainability
We act responsibly in the interest of our company, also taking the social and ecological impact of our actions into consideration.

Initiative and determination
We act on our own initiative, take entrepreneurial responsibility, and pursue our goals with determination.

Openness and
We communica
matters in a ti
This is the bes
relationship bu

www.wearebosch.com

t our strongest competitors. Our work
fficient processes, lean structures, and
increase the value of the company.

that offer the best quality and
y, we meet our customers' wishes

Global presence
We are an international company. While constantly extending our global presence, we strengthen local responsibility.

l trust
ate important company
mely and open fashion.
t foundation for a
uilt on trust.

Fairness
We deal fairly with our colleagues and business partners, and view this fairness as a cornerstone of our corporate success.

Reliability, credibility, legality
We promise only what we can deliver, accept agreements as binding, and respect and observe the law in all our business transactions.

Diversity
We appreciate and encourage diversity for the enrichment it brings, and see it as essential for our success.

Annual report 2014

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To access the annual report online (PC or tablet), go to:
annual-report.bosch.com/financial-report

Foreword

Dear readers,

We can look back on a successful and eventful 2014. Despite the weak global economy, we were able to surpass our expectations for growth and profitability. In addition, we made important strategic decisions – such as the acquisition of all shares in the previously fifty-fifty joint ventures BSH Bosch und Siemens Hausgeräte GmbH and ZF Lenksysteme GmbH. We gained more than 68,000 associates and an increase in sales volume of some 15 billion euros as a result of these acquisitions. Thanks to our sound financial position, we were able to finance these investments without difficulty, while at the same time maintaining the necessary room to maneuver that will enable the future viability of the Bosch Group. Strategically and technologically, both companies are a good fit for ours, and both epitomize our "Invented for life" ethos. This ethos is also an integral part of our new "We are Bosch" mission statement.

The new mission statement replaces the "House of Orientation," which is now nearly ten years old. This reconceptualization was timely, since the world we live in has become more complex and dynamic, and thus increasingly unpredictable. Straightforward and compact, "We are Bosch" expresses how we see ourselves as a company. It serves as a frame of reference for executives and associates worldwide, forms the basis for our operating units' strategy, and provides strong impetus for the company's further development. You'll find a more detailed presentation of the new mission statement on the inside jacket of this annual report. The title of our annual report this year is "Quality of life." We have chosen this title because we want to vividly illustrate the many different ways we create technology that is "Invented for life," and to show how these innovations contribute to improving quality of life for many people. After all, this is something that has always been our aim at Bosch.

In addition, the management report shows for the first time how we derive our strategic approach from "We are Bosch." The mission statement lays out the three strategic focal points that form the basis of our approach: customer focus, shaping change, and striving for excellence. We see these focal points as both an opportunity and a challenge. With regard to shaping change, we place a particular focus on energy efficiency, automation, electrification, the growth opportunities in emerging markets, and the overriding theme of increasing connectivity. We are increasingly using the possibilities offered by the internet of things to develop innovative products and business models in the mobility sector, in manufacturing operations, in household appliances, and in energy and building technology. We believe that our expertise in hardware, software, and sensor technology can be the source of considerable growth opportunities – even as competition becomes increasingly intense. After all, in today's connected markets, IT companies and device manufacturers face each other in direct competition for the first time.

In order to be innovative, we have to be profitable. We have made good progress toward this goal. The current annual report's statements and figures offer compelling evidence that our efforts to improve both profitability and agility – and with them our competitiveness – are bearing fruit. This year, our task is to diligently continue our efforts. Despite the economic risks, we are also forecasting good growth and further improvements to earnings in 2015.

On behalf of the board of management, I would like to thank all our associates worldwide for their hard work and dedication. Without them, our success in 2014 would not have been possible. Their commitment is crucial for taking our company forward. We would also like to thank the employee representatives for their constructive contributions to finding solutions, as well as our business partners, our shareholders, and the supervisory board for their support.

With best regards,

Dr. Volkmar Denner,
Chairman of the board of management

Board of management

"The way we act is characterized by mutual respect and fairness. This is just as true of our associates in their dealings with each other as it is of our work with partners and suppliers."

Christoph Kübel

"Road safety is right at the top of our agenda. We develop and manufacture systems that are tailored to regional requirements."

Dr. Dirk Hoheisel

"Protecting the environment is one of our prime tasks: the sustainability we achieve through energy-saving and eco-friendly products, as well as through a state-of-the-art, efficient manufacturing network, conserves resources, protects the environment, and safeguards quality of life for everyone."

Dr. Werner Struth

"It's our responsibility to achieve growth that is sustained and profitable. Only in this way can we maintain our capacity to act in the company's best interest and secure our financial independence. If we do this, then our partners and customers will be able to rely on us in the future as well."

Dr. Stefan Asenkerschbaumer

"We want to spark enthusiasm: in our associates for the company, and in people for our products. Improving quality of life and conserving natural resources are our prime concerns. That's what we mean by 'Invented for life'."

Dr. Volkmar Denner

"The ability to think globally and act locally is one of our strengths. The mix of different cultures and the constant transfer of knowledge help us to do what is best for people in global markets."

Peter Tyroller

"Our innovative strength is driven by curiosity. This strength allows us to rise to global challenges and satisfy our customers' wishes."

Dr. Rolf Bulander

"The people who use our products are the focus of our innovative ideas. Increasingly, we are involving our customers in the development of new products right from the start."

Uwe Raschke

"We offer our customers products that spark their enthusiasm, as well as innovative service solutions that have been carefully designed with potential users in mind. These solutions can draw on the experience gained in many years of successful work with all kinds of customers."

Dr. Stefan Hartung

"Automotive technology is a Bosch core competence. Thanks to our innovative solutions, cars are being electrified, automated, and connected. In this way, Bosch is shaping the mobility of the future."

Wolf-Henning Scheider

Board of management

Dr. Volkmar Denner
Chairman

Corporate responsibilities
- Technology coordination
- Corporate strategy
- Corporate communications
- Research and advance engineering
- Real estate and facilities

Subsidiaries
- Bosch Software Innovations GmbH
- Healthcare Telemedicine
- Robert Bosch Venture Capital GmbH
- Bosch Energy Storage Solutions LLC

Dr. Stefan Asenkerschbaumer
Deputy chairman

Corporate responsibilities
- Finance and financial statements
- Controlling, planning, and mergers and acquisitions
- Internal accounting and organization
- Purchasing and logistics
- Information technology
- In-house consultancy

Christoph Kübel

Corporate responsibilities
- Human resources and social welfare, including senior executives
- External affairs, governmental and political relations
- Legal services and compliance
- Taxes
- Internal auditing
- Intellectual property
- Insurance

Dr. Rolf Bulander

Corporate responsibility
- Quality

Divisions
- Gasoline Systems
- Diesel Systems
- Starter Motors and Generators

Subsidiary
- Bosch Engineering GmbH

Dr. Dirk Hoheisel

Corporate responsibility
- Automotive systems integration

Divisions
- Chassis Systems Control
- Car Multimedia
- Automotive Electronics

Subsidiary
- ETAS GmbH

Uwe Raschke

Corporate responsibilities
- Consumer Goods business sector
- User experience

Division
- Power Tools

Subsidiary
- BSH Bosch und Siemens Hausgeräte GmbH[3]

Regional responsibilities
Western Europe, Middle Eastern Europe, Russia, Middle East, Africa

Presidents of the divisions

Manfred Baden
Car Multimedia

Dr. Steffen Haack
Solar Energy[4]

Henning von Boxberg
Power Tools

Uwe Glock
Thermotechnology

Dr. Markus Heyn[1, 5]
Diesel Systems

Gert van Iperen
Security Systems

Dr. Ulrich Kirschner
Starter Motors and Generators

Friedbert Klefenz
Packaging Technology

Klaus Meder
Automotive Electronics

Peter Tyroller

Regional responsibilities
Asia Pacific, India

Dr. Werner Struth

Corporate responsibilities
- Industrial Technology business sector
- Manufacturing coordination, production system development, and investment planning
- Environmental protection

Divisions
- Drive and Control Technology
- Packaging Technology

Regional responsibilities
North America, South America

Wolf-Henning Scheider[1]

Corporate responsibilities
- Mobility Solutions business sector
- Original equipment sales
- Marketing and sales

Divisions
- Electrical Drives
- Automotive Aftermarket

Subsidiary
- ZF Lenksysteme GmbH[2]

Dr. Stefan Hartung

Corporate responsibility
- Energy and Building Technology business sector

Divisions
- Security Systems
- Solar Energy[4]
- Thermotechnology

Subsidiary
- Bosch Energy and Building Solutions GmbH

Stefan Seiberth
Gasoline Systems

Gerhard Johannes Steiger
Chassis Systems Control

Dr. Bernhard Straub
Electrical Drives

Dr. Uwe Thomas
Automotive Aftermarket

Dr. Karl Tragl
Drive and Control Technology

[1] Until March 31, 2015
[2] Effective January 30, 2015, wholly-owned subsidiary, renamed Robert Bosch Automotive Steering GmbH
[3] Effective January 5, 2015, wholly-owned subsidiary, renamed BSH Hausgeräte GmbH
[4] Until August 31, 2014
[5] Effective April 1, 2015, member of the board of management

10

Supervisory board report

Ladies and gentlemen,

For the Bosch Group, 2014 was a successful year, one in which a number of important strategic decisions were made. With our complete acquisitions of BSH Bosch und Siemens Hausgeräte GmbH and ZF Lenksysteme GmbH, we succeeded in making the Bosch Group considerably stronger.

In our capacity as supervisory board, we regularly monitored the work of the board of management, and supported its efforts relating to management, to developing Bosch Group strategy, and to individual matters affecting the company. We are obliged by law and the statutes to fulfill a number of tasks – an obligation which we fulfilled once more with the utmost care in fiscal 2014. Outside of board meetings, moreover, the chairman of the supervisory board had the chairman of the board of management regularly inform him about current developments and events in the company. Our cooperation with the board of management is characterized by open, honest, and constructive exchange. Both supervisory board and board of management share the objective of securing the Bosch Group's sustainable development, so that it is successful over the long term. In this way, we fulfill the mission handed down to us in the will of the company founder, Robert Bosch.

The supervisory board was also closely involved in the acquisition of all shares in the former fifty-fifty joint ventures BSH Bosch und Siemens Hausgeräte GmbH – one of the largest acquisitions in the company's history – and ZF Lenksysteme GmbH. In addition, it kept itself fully abreast of the board of management's other major plans for acquisitions and divestments. Other topics dealt with included an evaluation and improvement of the Bosch Group's compliance management system as well as assessments of the pending antitrust proceedings, the challenges of greater electrification in the automotive sector, and the growing requirements concerning data security. Furthermore, the board concerned itself with issues of leadership and collaboration within the company. In particular, we addressed the idea of agile teams that can react quickly and flexibly in dynamic markets, and of the user experience approach as a way of achieving a stronger customer focus.

The supervisory board looked in detail at business developments as well as the financial and capital expenditure plans. As part of the risk management process, the board of management reported on major individual risks. There was no evidence of existential risks. The auditor's examination of the structure and function of the risk management system did not result in any objections. In view of Wolf-Henning Scheider's departure from the board of management, the supervisory board appointed Dr. Markus Heyn, president of the Diesel Systems division, as a new management board member effective April 1, 2015.

PricewaterhouseCoopers Aktiengesellschaft Wirtschaftsprüfungsgesellschaft (PwC) audited and issued an unqualified audit opinion on the Robert Bosch GmbH annual financial statements, the Bosch Group consolidated financial statements, and the accompanying management reports as of and for the year ended December 31, 2014. The supervisory board discussed these documents at length and subjected them to its own examination. All members of the supervisory board had access to the auditor's reports. Moreover, at the supervisory board meeting, the auditor reported on the main findings of the audit, which were then discussed in detail in the auditor's presence. The supervisory board raised no objections, concurred with the results of the audit, and approved the Robert Bosch GmbH annual financial statements and the Bosch Group consolidated financial statements. The supervisory board recommended that the shareholders adopt the annual financial statements, approve the consolidated financial statements, and endorse the board of management's proposal for the appropriation of net profit.

The supervisory board would like to thank the board of management and all Bosch Group associates for their exemplary dedication and hard work over the past year, as well as for the many activities that have sustained the company's continuing success.

Stuttgart, March 2015
For the supervisory board

Franz Fehrenbach,
Chairman

Supervisory board

Franz Fehrenbach
Stuttgart
Chairman
Former chairman of the board of management of Robert Bosch GmbH

Alfred Löckle
Ludwigsburg
Deputy chairman
Member of the works council of the Schwieberdingen plant, and chairman of the central works council as well as of the combined works council of Robert Bosch GmbH

Christiane Benner
Frankfurt am Main
Managing member of the executive board of Industriegewerkschaft Metall

Dr. Christof Bosch
Königsdorf
Spokesperson for the Bosch family

Christian Brunkhorst
Mühltal
Representative of the chairman of Industriegewerkschaft Metall

Klaus Friedrich
Lohr
Chairman of the works council of Bosch Rexroth AG, Lohr am Main, and chairman of the central works council of Bosch Rexroth AG and member of the combined works council of Robert Bosch GmbH

Hartwig Geisel
Leinfelden-Echterdingen
Chairman of the works council of the Feuerbach plant and deputy chairman of the central works council as well as of the combined works council of Robert Bosch GmbH

Jörg Hofmann
Esslingen
Vice-president of Industriegewerkschaft Metall, Frankfurt am Main

Prof. Lars G. Josefsson
Stockholm
Former president and chief executive officer of Vattenfall AB

Dieter Klein
Wolfersheim
Chairman of the works council of the Homburg plant and member of the central works council of Robert Bosch GmbH

Prof. Dr. Renate Köcher
Konstanz
Managing director, Allensbach Institute for Public Opinion Research

Prof. Dr. Olaf Kübler
Zurich
Former director, Eidgenössische Technische Hochschule (ETH) Zurich

Matthias Georg Madelung
Munich
Member of the board of trustees of Robert Bosch Stiftung GmbH

Kerstin Mai
Hildesheim
Chairwoman of the works council of Robert Bosch Car Multimedia GmbH, Hildesheim, and member of the combined works council of Robert Bosch GmbH

Dr. Wolfgang Malchow
Pliezhausen
Former member of the board of management of Robert Bosch GmbH

Urs B. Rinderknecht
Zurich
Former chief executive of UBS AG

Tilman Todenhöfer
Madrid
Managing partner of Robert Bosch Industrietreuhand KG

Dr. Richard Vogt
Bühl
Department head, development of business excellence, Electrical Drives division, and chairman of the executives committee of Robert Bosch GmbH as well as of the combined executives committee of the Bosch Group in Germany

Prof. Dr. Beatrice Weder di Mauro
Frankfurt am Main
Chair of international macroeconomics at the Johannes Gutenberg University of Mainz

Hans Wolff
Bamberg
Chairman of the works council of the Bamberg plant and member of the central works council of Robert Bosch GmbH

Industrial trust and international advisory committee

Robert Bosch Industrietreuhand KG

General partners

Franz Fehrenbach
Stuttgart
Chairman of the shareholders' meeting

Tilman Todenhöfer
Madrid

Limited partners

Dr. Christof Bosch
Königsdorf

Dr. Siegfried Dais
Stuttgart

Dr. Volkmar Denner
Pfullingen

Dr. Jürgen Hambrecht
Ludwigshafen

Prof. Lars G. Josefsson
Stockholm

Prof. Dr. Olaf Kübler
Zurich

Dr. Wolfgang Malchow
Pliezhausen
(from July 1, 2014)

Dr. Michael Otto
Hamburg

Urs B. Rinderknecht
Zurich

Robert Bosch international advisory committee

Franz Fehrenbach
Stuttgart
Chairman

Dott. Alessandro Benetton
Treviso

Dr. Hugo Bütler
Zurich

Stephen J. Hadley
Washington
(from January 1, 2015)

HRH Prince El Hassan bin Talal
Amman

Prof. Ryozo Hayashi
Tokyo

Baba N. Kalyani
Pune

Dr. Henry A. Kissinger KCMG
Washington
(until December 31, 2014)

Pascal Lamy
Paris
(from January 1, 2015)

Friedrich Merz
Berlin

Ingo Plöger
São Paulo

Erwin Schurtenberger
Ascona, Beijing

Louis Schweitzer
Paris
(until December 31, 2014)

Prof. Dr. Igor Yurgens
Moscow

Highlights of the year

January to July

Jan. 6 | Las Vegas, USA

Bosch at CES

Bosch presents technologies for the future of connected driving, as well as the world's first integrated environment sensor, which combines a pressure, humidity, and temperature sensor in one single housing.

Feb. 5 | Berlin, Germany

Bosch Connected World

At this conference, more than 400 experts meet to discuss smart batteries, smart homes, and smart sensors.

Feb. 7 | Bangalore, India

German Federal President Joachim Gauck visits Bosch vocational center

Since it was founded in 1961, the center in Bangalore has trained some 2,400 apprentices in seven trades.

Mar. 1 | Stuttgart, Germany

100 years of Bosch starters

Mar. 1 | Stuttgart, Germany

100 million Bosch ESP® systems

Apr. 1 | Hannover, Germany

Hannover Trade Fair: wide range of solutions for connecting industry and buildings

Bosch presents hardware and software innovations relating to Industry 4.0 and the internet of things.

At the trade fair, Federal Chancellor Dr. Angela Merkel visits the Bosch Rexroth booth. Dr. Werner Struth, member of the board of management of Robert Bosch GmbH, demonstrates how the APAS production assistant works. The assistant is fitted with a "sensor skin" that prevents collisions.

Apr. 2 | Stuttgart-Feuerbach, Germany

European works council members in open and constructive dialogue with the board of management

Together with Alfred Löckle, the chairman of the central and combined works councils, Dr. Volkmar Denner, the Bosch CEO, and Christoph Kübel, the director of industrial relations (from right), 30 works council members from 20 countries discuss ways of strengthening the European locations.

May 1 | Abstatt, Germany

DTM relies on Bosch technology

In the 2014 DTM race season, all race cars once again drive with Bosch engine management systems, displays, and other components.

May 9 | Cluj, Romania

Bosch opens new manufacturing facility

In Cluj, some 750 associates manufacture electronic components and control units for the European automotive industry. They are used for functions such as driver assistance and safety systems, as well as for energy management. In addition, the electronic heart of the e-bike drive comes from this new location.

Jun. 24 | Stuttgart, Germany

International “Bosch Diversity Day”

For 24 hours, there are participative campaigns, discussions, and networked events around the world, designed to demonstrate the diversity within the Bosch Group. Bosch believes that a diversity of cultures, experience, and perspectives is a major stimulus for productivity and innovation. For its commitment to diversity, the company has already received many awards, the most recent of which is the German Diversity Prize.

Jul. 11 | Braderup, Germany

Storage battery goes into operation

A flexible solution for wind power: if there is too much power for the grid to handle, the huge Bosch battery stores the wind power, then feeds it in later on demand. With a total peak capacity of 2,325 kilowatts, the Braderup hybrid battery stores the same amount of electricity as 40 single-family homes would use in one week.

Highlights of the year

August to December

Aug. 26 | Stuttgart, Germany

#ExperienceBosch

For 16 days, six Bosch explorers traveled around the world, stopping at six places on three continents to look behind the scenes of exciting Bosch projects. On the social web, they reported live on their experiences in London, San Francisco, Shanghai, Singapore, Berlin, and the Panama Canal.

Sep. 15 | Stuttgart and Schwäbisch Gmünd, Germany

Complete acquisition of ZF Lenksysteme planned

With its complete takeover of ZF Lenksysteme, Bosch is strengthening its ability to actively shape the future of mobility. ZF Lenksysteme is a technological leader in the growth area of electric steering, and exactly this is the core technology for automated driving, for more efficient vehicles, and also for electric cars.

Sep. 22 | Stuttgart and Munich, Germany

100 percent takeover of BSH announced

BSH fits in well with the company's strategic imperative "Invented for life." With smart technology, a high level of convenience, and user friendliness, the household appliance manufacturer wants to make people's lives around the world easier and more pleasant with its products and services, conserving natural resources with appliances that are especially efficient.

Sep. 26 | Hannover, Germany

65th IAA Commercial Vehicles

Bosch showcases technology for trucks, vans, and buses. The focus is on solutions that help customers meet the ever stricter emissions standards for trucks, buses, and off-highway vehicles such as tractors and construction machinery.

Oct. 14 | Stuttgart, Germany

Federal government asks Volkmar Denner to join steering committee

On the "Innovation dialogue" steering committee, participants from the federal government, business, and academia discuss subjects with technological and future relevance. "In the race for a connected world, Germany must use its strengths," Denner says.

Oct. 17 | Berlin, Germany

Bosch organizes its first hackathon

Bosch uses this new approach to software development and customer focus to come up with apps for the mySPIN smartphone integration solution. The idea is that these driver-assistance apps should be shown on the vehicle display in a non-distracting way. Roughly 30 independent software developers and designers take part.

Oct. 21 | Brussels, Belgium

Bosch Group receives 2014 EFQM Excellence Award

The winner of the EFQM Excellence Award 2014, and thus overall winner of the competition, is the Bosch plant in Bari. The plant in southern Italy receives three further prizes in the “Creating a sustainable future,” “Managing with agility,” and “Succeeding through the talent of people” categories.

On behalf of all 2,000 associates in Bari, the plant management accepts the award (from left: Jens Last, commercial plant manager, Georg Kell, director of United Nations Global Compact, Enno Scharphuis, technical plant manager).

Nov. 20 | Ho Chi Minh City, Vietnam

Economics Minister Gabriel visits new Bosch training center in Vietnam

Nov. 24 | Stuttgart, Germany

Associates’ ideas have saved 395 million euros over the past ten years

For 90 years, associates’ ideas have been making Bosch more innovative. In 2014, 21,900 associates submit suggestions for improvement. Two foundry associates receive the maximum cash reward of 150,000 euros.

Dec. 1 | Stuttgart, Germany

ABB, Bosch, and Cisco agree joint venture

An open software platform for smart homes will allow the simple exchange of data between different appliances, and pave the way for many new services. The alliance is to be open to all device manufacturers and service providers.

Robert Bosch Stiftung

In 2014, Robert Bosch Stiftung GmbH celebrated its 50th anniversary. Since 1964, it has translated the charitable and social commitment of Robert Bosch into modern projects. It pursues its specific objectives with programs and institutions of its own. The Stiftung also supports third-party projects and initiatives that complement its own objectives. Each year, the Robert Bosch Stiftung approves funding for some 800 initiatives. It is one of the largest foundations in Europe.

Left: Dr. Constanze Stelzenmüller (center) in a discussion with the former ambassador Robert M. Kimmit (left) and Dr. Peter Wittig (right), the German ambassador to the United States.

Right: Students from 70 countries learn together at the new UWC Robert Bosch College in Freiburg, Germany.

The Robert Bosch Stiftung focuses its funding activities on healthcare and science, education, culture and society, as well as international relations. Its aim is to find possible solutions for relevant issues, and to test them in the field as models. The Stiftung develops projects aimed at improving social coexistence and encouraging greater equality of opportunity. Moreover, it ensures that results of these projects can be applied as widely as possible. The main point of reference for its work is provided by the values of Robert Bosch and the mission he handed down. Just like the company, the Stiftung is committed to high standards of quality and sustainability. The Stiftung finances its work from the dividend it receives as a shareholder in Robert Bosch GmbH.

50 years shaping the future

This was the motto under which the Stiftung launched events and initiatives in its anniversary year. The objective was not only to look back at the achievements of the past 50 years, but also to look ahead and ask what issues will be important for society and the foundation's own work in the years to come.

The Stiftung opened its doors to the public for the first time at the beginning of July. Six thousand visitors had the opportunity to learn about the Stiftung's work at a celebration on the grounds of the Bosch Haus Heidehof in Stuttgart, Germany.

The biggest anniversary project was the inauguration of the UWC Robert Bosch College in Freiburg, Germany, in September 2014. This secondary school for up to 200 students from around the globe combines the ideals of a good education with intercultural skills, and has received substantial support from Robert Bosch GmbH and other partners.

In Berlin in October, German federal president Joachim Gauck opened the Stiftung's international conference titled "The era of the citizen – how civil society and foundations are shaping the future." Among the guests were the Nobel Peace Prize laureates Kailash Satyarthi (2014) and Muhammad Yunus (2006). At the conference, the Stiftung presented the results of a study called "the future of foundations," which was conducted on its behalf by Roland Berger Strategy Consultants.

Robert Bosch Academy

In 2014, the Stiftung's liaison office in Berlin established a new venue for social and political discourse. The Robert Bosch Academy offers up to 20 renowned experts from around the world the opportunity to work on strategies for tackling the global challenges of the 21st century. As Richard von Weizsäcker fellows, they participate in the capital's political dialogue and enrich the academy's comprehensive program of events. In addition, research fellowships are given to young scholars working on specific subjects that are relevant for the Stiftung's work.

Transatlantic partnership

In 2014, the Robert Bosch Stiftung established a senior fellowship at the Brookings Institution, a renowned think tank located in Washington, D.C. The inaugural fellowship was awarded to the

A happy birthday to the Stiftung: Baden-Württemberg Governor Winfried Kretschmann (center) with Dr. Christof Bosch (far left), Prof. Dr. Joachim Rogall (second from left), Dr. Kurt Liedtke (second from right), and Dr. Ingrid Hamm (right)

journalist and legal expert Dr. Constanze Stelzenmüller. Her task is to share the German perspective on key issues with U.S. officials and policymakers. As the 30th anniversary of the scholarship program for U.S. junior managers also indicates, the Stiftung is committed to strengthening ties with the United States.

Youth in Europe

The high level of youth unemployment in southern Europe is endangering the future prospects of an entire generation. Robert Bosch GmbH and the Robert Bosch Stiftung have launched a joint initiative to address this. One of the Stiftung's first steps was to commission a study by the Center for European Economic Research (ZEW) to explore the issue and make recommendations for reforms. The researchers call for reforms of the education systems and job markets in affected countries as well as increased mobility for European apprentices.

The following institutions also belong to the Stiftung:
- Robert Bosch Hospital,
- Dr. Margarete Fischer-Bosch Institute for Clinical Pharmacology,
- Institute for the History of Medicine of Robert Bosch Stiftung, and
- UWC Robert Bosch College.

Dependent foundations within the Stiftung:
- Otto und Edith Mühlschlegel Stiftung (aging),
- Hans-Walz-Stiftung (research into complementary medicine),
- DVA-Stiftung (Franco-German dialogue), and
- Rochus und Beatrice Mummert Stiftung (international promotion of young talent).

Total project grants by Robert Bosch Stiftung, 2014
Figures in millions of euros

11.9	Healthcare and science
15.5	Education, society, and culture
7.6	International relations: Americas and Asia
13.7	International relations: Europe and its neighbors
2.8	Projects by the Berlin liaison office to promote international relations
9.8	Research at institutes[1] and the Robert Bosch Hospital
5.4	Investments in the Robert Bosch Hospital
1.3	Dependent foundations
68.0	**Total**

[1] Dr. Margarete Fischer-Bosch Institute for Clinical Pharmacology, Institute for the History of Medicine of Robert Bosch Stiftung

More information is available online at
www.bosch-stiftung.de

Group management report

The Bosch Group performed well in 2014, despite a weak global economy. Sales grew by 6.3 percent to 49 billion euros, exceeding the sales target. Result also exceeded the previous year's level. Particularly strong sales growth was recorded in the Mobility Solutions business sector and in Asia Pacific. But we were also successful with many innovations in all our business sectors. Furthermore, our intensive efforts to improve competitiveness were reflected in result. The purchase of all shares in the former joint ventures BSH Bosch und Siemens Hausgeräte GmbH and ZF Lenksysteme GmbH is an important step for the Bosch Group. Strategically and technologically, both acquisitions are an excellent fit with the Bosch Group. Due to the great significance of the takeovers, and even though they will not be fully consolidated until 2015, the management report includes initial statements and, in a separate section, key data relating to the acquisitions.

F.01

Shareholders of Robert Bosch GmbH

Shareholding

Robert Bosch GmbH
1

Bosch family
7

Robert Bosch Stiftung GmbH
92

Voting rights

Bosch family
7

Robert Bosch Industrietreuhand KG
93

F.02

Bosch Group business sectors

Mobility Solutions
(formerly Automotive Technology)
Gasoline Systems
Diesel Systems
Chassis Systems Control
Electrical Drives
Starter Motors and Generators
Car Multimedia
Automotive Electronics
Automotive Aftermarket
Automotive Steering [1]

Industrial Technology
Drive and Control Technology [2]
Packaging Technology

Consumer Goods
Household Appliances [3]
Power Tools

Energy and Building Technology
Thermotechnology
Security Systems

[1] Robert Bosch Automotive Steering GmbH (formerly ZF Lenksysteme GmbH, or Steering Systems division; included in the 2014 financial statements at equity; completely acquired Jan. 30, 2015)
[2] Bosch Rexroth AG (100% Bosch-owned)
[3] BSH Hausgeräte GmbH (formerly BSH Bosch und Siemens Hausgeräte GmbH, included in the 2014 financial statements at equity; completely acquired Jan. 5, 2015)

Fundamental information about the group

The group

The Bosch Group encompasses some 340 subsidiaries and regional companies in roughly 50 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. Since 1964, Robert Bosch Stiftung GmbH has been the majority shareholder. It currently holds 92 percent of the capital stock.

As a charitable 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, making it possible for the company to plan over the long term and to undertake significant up-front investments in the safeguarding of its future.

Businesses

The Bosch Group is divided into four business sectors. Since the beginning of 2015, these have had English names only: Mobility Solutions (formerly Automotive Technology), Industrial Technology, Consumer Goods, and Energy and Building Technology. These correspond to the former reporting segments. Previous operations in crystalline photovoltaics have been largely disposed of or wound up. The subsidiary aleo solar AG in Oldenburg and Prenzlau, Germany, in which Bosch now has a stake of more than 95 percent, is in liquidation. For the most part, the 2013 management report assumed that the group's continuing operations would not include crystalline photovoltaics.

Mobility Solutions business sector

Bosch is one of the world's largest automotive suppliers. 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, sensors, connectors, electric drive units, power electronics, battery systems, and transmission technology. The trend here is from components supplier to systems provider – both in the management of internal combustion engines and electric drive units and in the combination of these two powertrains in hybrids and plug-in hybrids, through to the interplay with the braking system in order to recover energy.

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 passenger cars and commercial vehicles, regardless of engine size, as well as for other applications. It focuses primarily on the common-rail system, which comprises high-pressure pumps injecting at pressures of up to 2,500 bar, the rail, and various injectors (solenoid and piezo). The division also provides air management systems such as mass air-flow sensors, EDC

electronic diesel control, and exhaust-gas management systems such as Denoxtronic, as well as solutions for diesel hybrid vehicles. Gasoline Systems and Diesel Systems are working ever closer together in the areas of engine management, sensor systems, and powertrain electrification.

Since 2014, the fifty-fifty joint venture Bosch Mahle Turbo Systems GmbH & Co. KG, Stuttgart, has been assigned to the Diesel Systems division. It previously formed part of Gasoline Systems. It is still consolidated according to the equity method. That is to say, its pro-rata share of equity is reported in the balance sheet and its after-tax income is reported in 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 units. Bosch Emission Systems GmbH & Co. KG, Stuttgart, develops, manufactures, and integrates exhaust-gas treatment systems, mainly for construction machinery and commercial vehicles, but also for SUVs. We also manufacture products for the U.S. market through our companies located in the United States. Bosch Emission Systems also supports engine and vehicle manufacturers all over the world with turnkey projects.

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. This also incorporates ABS and MSC stability control systems for motorcycles. The division also supplies sensors such as speed, steering-angle, and yaw-rate sensors, as well as electronic devices to protect passengers and pedestrians, including airbag control units and crash sensors. A fast-growing area is that of driver-assistance systems based on ultrasound, 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 broad array of products offered by the Electrical Drives division stretches from a wide variety of electromechanical components to entire systems for bodywork applications, Including innovative and energy-efficient actuators, as well as systems and components for engine thermal management, air-conditioning, and windshield cleaning. The product range also comprises actuators for electric windows, seat adjustment systems, and sunroofs, fan modules and engine-cooling drive systems, pumps and valves for cooling systems, air-conditioning components, front and rear wiper systems, as well as wiper arms and 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 commercial vehicles. The extensive product catalog includes long-life starters for gasoline and diesel engines, especially also for use in fuel-saving – and therefore CO_2-reducing – start-stop systems. Its alternators provide the vehicle with a reliable energy supply and their high efficiency helps to significantly 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 which allow braking energy to be recovered.

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 utilizing the internet. These include driver information and infotainment systems that can be used worldwide and that feature natural-language voice control, freely programmable displays, and head-up displays. The division also offers terminals and communications systems for use in commercial vehicles, passenger cars, and even on motorcycles.

Automotive Electronics

Automotive Electronics develops and manufactures microelectronics. Additional core competencies are systems integration and vehicle calibration. 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 man-

agement systems (also contract manufacturing of the above), to non-automotive applications such as sensors for consumer electronics. As of 2014, Bosch Connected Devices and Solutions GmbH, Reutlingen, also offers sensors, software, and complete solutions for the internet of things, including devices for smart homes. Automotive Electronics also includes the eBike Systems unit, which is Europe's leading supplier of drive and control units for bicycles with electric motors.

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, to 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 more than 16,500 and 800 locations respectively. The division also provides fleet management services.

Automotive Steering (formerly Steering Systems)

At the end of January 2015, we acquired all shares in the fifty-fifty joint venture ZF Lenksysteme GmbH, Schwäbisch Gmünd, Germany, which in the future will operate under the name Robert Bosch Automotive Steering GmbH. In the 2014 consolidated financial statements, the company is still consolidated in accordance with the equity method. The division 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. Electric steering systems are becoming increasingly important: they are already of great significance for driver assistance systems, and will in the future be essential for electric and automated vehicles.

Other businesses

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 series 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 the industrial automation, mobile machinery, and commercial vehicle segments. Since the sale of its pneumatics business at the beginning of 2014, the division has focused on electrical, hydraulic, and mechatronic components and systems. The division is active in every branch of industry and more than 80 countries as a systems partner, service provider, and supplier. Moreover, it offers a comprehensive range of services and is involved in 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, and complete solutions. These are complemented by a comprehensive after-sales 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. The portfolio ranges from planning to turnkey plants, with ramp-up support, and includes a comprehensive array of services.

Consumer Goods business sector

The business sector comprises the following 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 a broad 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. One area of focus is convenient, high-performance cordless equipment. The division 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.

Household Appliances
In January 2015, we finally 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 joint venture, too, is included in the Bosch Group's 2014 consolidated financial statements using the equity method. The household-appliance manufacturer, which is among the leading suppliers in Europe and the world, has a product portfolio that ranges from washing machines and tumble dryers through refrigerators and freezers, stoves and ovens, dishwashers, and vacuum cleaners, to small appliances such as coffee makers, irons, and hot-water appliances. The household appliance specialist sells its products under the main Bosch and Siemens brands, as well as under regional and specialty brands such as Gaggenau, Neff, Constructa, Zelmer, Balay, and Pitsos.

Energy and Building Technology business sector

The business sector covers a broad spectrum of products and services in the fields of heating, air-conditioning, and security.

Security Systems
The Security Systems division provides products and services in the fields of security and business services. 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. In Germany and selected European countries, Bosch's Building Security business unit provides one-stop tailor-made security solutions, including services such as planning, financing, operation, and maintenance. In other selected countries, Bosch develops customized security solutions for large-scale projects; these are implemented on site by a systems integrator. Via the Bosch Service Solutions business unit, we provide services in the area of business processes in more than 30 languages.

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.

The business sector includes the service subsidiary Bosch Energy and Building Solutions GmbH, based in Ditzingen, Germany. It was consolidated for the first time in 2014. The company specializes in services to increase energy efficiency in non-residential buildings. Its customers include manufacturing companies and owners of large real estate properties, but also companies from the healthcare sector.

Companies not allocated to business sectors
Our subsidiary Bosch Software Innovations GmbH, Berlin, develops solutions for the connected world based on its own software suite (i.e. software platform). It provides standardized applications, particularly in the areas of energy, industry, and mobility.

Opportunities, objectives, and strategy

Fundamental direction

New "We are Bosch" mission statement as the basis
In 2014, in the shape of our new "We are Bosch" mission statement, we created a framework for the future strategic orientation of the Bosch Group and its business sectors. The mission statement focuses on fundamental messages of the former "House of Orientation" and develops them with reference to future requirements. The starting point remains 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 also software and services.

Our strategy is based on the focal points formulated in the new 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. It is increasingly important to offer products tailored to customers and markets and to exploit the innovation potential at our engineering centers worldwide.

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. We aim to secure and increase the value of the company on the basis of efficient processes, lean structures, and high productivity. A business environment that is changing at an ever increasing rate calls for increased agility. To this end, we are constantly developing our concepts for leadership and management, as well as our organization.

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. These changes present significant opportunities for our company – above all in the areas of energy efficiency, electrification, automation, emerging markets, and connectivity. To achieve this we want to build on our strengths: the Bosch culture, our high level of innovation and quality, and our broad global presence. We continue to base our strategy and our actions on Bosch values: a clear future and result focus, responsibility and sustainability, initiative and determination, openness and trust, fairness, reliability, and credibility, legality, and diversity.

Change opens up major strategic opportunities

With respect to change, we have thoroughly analyzed the strategic opportunities arising from it. The strategic focus on energy efficiency is concerned with energy saving, both in products and in internal value-added. Drivers include the growing demand for energy, ever tighter climate-protection regulations, and the finite nature of fossil fuels. Despite the current development in the price of oil, in the longer term these factors will lead to rising energy prices and hence to growing demand for energy-efficient products. This affects our entire product portfolio. We generate some 40 percent of our sales with products that contribute to energy efficiency, environmental protection, and resource conservation. These products currently account for more than half our research and development expenditure.

Electrification is of particular importance for the Mobility Solutions business sector. Based on our current estimates, electric vehicles will cease being a niche product in the next five years. By 2020, we expect annual production of 2.5 million electric vehicles, around 3 million plug-in hybrids, and 6.5 million hybrid vehicles in a global market of approximately 113 million vehicles. In 2014, the total number of electric and hybrid vehicles produced 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, 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. Drivers will be able to use their commute more efficiently and have a more comfortable journey. In these areas we expect to see substantial growth, but also changes in the competitive environment due to new players in the market. In Industrial Technology, increasing automation and robotics are leading to improved human-machine interaction. This creates opportunities to increase product quality and productivity, expand functionality, conserve resources, and better protect workers' health and safety.

The emerging markets of Asia, South America, and eastern Europe are home to most of the world's population. Despite the current slowdown in growth, in the long term they will experience higher rates of growth than the industrialized nations. Their prosperity is increasing. There is demand for affordable products that often have to meet special requirements of the local market, such as robustness and ease of repair. When it comes to customer focus, these requirements are becoming increasingly important. Another emerging, and for us promising, market is Africa. The subsaharan region is currently growing at an average annual rate of 5.5 percent, and its enormous pent-up demand gives it great long-term growth potential. We are significantly expanding our sales presence in Africa.

Connectivity is an overriding theme that affects all business sectors. 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. In view of our expertise in many product areas, our software expertise, and our expertise in sensor technology as one of the world's leading supplier of MEMS sensors, we believe this offers us huge opportunities. Through new business models, services, and competition from other sectors such as the IT industry, connectivity has the potential to profoundly change value chains and the competitive landscape.

It will also lead to more customized and flexible production, combined with shorter innovation cycles.

Global business targets defined for the Bosch Group
The Bosch Group's business targets are derived from the "We are Bosch" mission statement, the strategic focal points, and the competitive environment. We aim for annual sales growth of 8 percent on a long-term average, with 3 percent of this coming from acquisitions. We have also set ourselves the goal of an EBIT margin of 8 percent, which we derive from benchmarks. This margin is necessary in order to finance organic growth. By 2020, we aim 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 to 2 billion euros. In terms of business sectors, we plan to strike a better balance between Mobility Solutions and the other business sectors. The complete acquisition of the former joint venture BSH represents a major step in this direction. Following the complete acquisitions of BSH and ZF Lenksysteme, and in light of the full consolidation of these companies' sales and earnings (previously: pro-rata after-tax income), the above long-term targets will be reviewed.

Strategy and innovation

Mobility Solutions – more than automotive technology
The new name "Mobility Solutions" reflects the extended remit of the former Automotive Technology business sector. Over the next few years, we expect to see a change toward connected, automated, and electric driving. On this basis, we plan to develop the business sector from a supplier of systems and components to one that offers not only products but also complete solutions through the provision of additional services.

The complete acquisition of ZF Lenksysteme, a technology leader in the growth area of electric steering, is an important strategic step in this direction. The acquisition enhances our ability to achieve new USPs in the area of safety through the integration of steering and braking. Electric steering has significant potential to reduce the fuel consumption of vehicles with internal combustion engines, in particular through better coordination of the powertrain, steering, brakes, and driver assistance systems. Start-stop coasting is one example. Electric steering is also a vital component in many safety-critical assistance systems in passenger cars and, in the future, in light commercial vehicles. It is therefore a key element in the future world of automated driving. The new subsidiary is represented worldwide and, as part of its globalization strategy, has recently been investing above all in North America and Asia.

In powertrain technology, highly efficient internal combustion engines remain an important market, partly in view of increasing hybridization. At the same time, electric vehicles are gaining in significance. In the area of gasoline direct injection systems, we expect a similar boost to that seen in the case of diesel direct injection, which is currently growing strongly due to the Euro 6

standards for passenger cars and stricter standards worldwide for commercial vehicles. In Europe, it is expected that roughly half the new vehicles with gasoline engines will be equipped with direct injection by 2016, and around 60 percent by 2020. Another growth market is China, where all new vehicles must have an average fuel consumption of only five liters per 100 kilometers by 2020. This too will lead to a general shift away from manifold injection toward gasoline direct injection systems. A similar development can be expected in the United States, owing to tighter consumption requirements. The substantial up-front investments in gasoline direct injection that we made in the past are therefore paying off. For the South American market, we have adapted gasoline direct injection to allow the system to be used with ethanol as well. However, we are continuing to develop manifold fuel injection, which is still dominant in the hybrid vehicles of Japanese automakers.

The commercial vehicle business, with which we generate around one-quarter of our sales in Mobility Solutions, offers further significant growth opportunities in powertrain technology. Moreover, we are increasingly stepping up our activities in the off-highway sector. Bosch supplies all core components for commercial-vehicle diesel powertrains from a single source. One current driver of global demand is the stricter emissions standard China IV. Electronically controlled high-pressure injection and exhaust-gas treatment have become mandatory for new commercial vehicles in China. In other countries too, exacting standards are helping to boost sales figures. In 2014, for the first time, we delivered almost one million Denoxtronic exhaust-gas treatment systems for heavy trucks and buses. Emissions standards for off-highway vehicles are also becoming more stringent. We benefit from this through Bosch Emission Systems. We also launched a new generation of starters in 2014, which offer substantially higher starting power and so are also of interest for large engines in the off-highway sector. In the field of brake control systems, a new system tailored to the U.S. market went into series production at a North American manufacturer.

Particularly in Europe and the U.S., we are focusing on connectivity in commercial vehicles as well. We expect all new trucks in these regions to be offered with internet access by 2016. Bosch is already one of Europe's leading providers of infotainment for trucks and buses in Europe. We also connect the powertrain and transmission with the navigation system to achieve further fuel savings. Using an electronic horizon generated by navigation data, the Eco.Logic motion system calculates an efficient driving strategy. In the future, internet-based real-time data will be added so as to include road work, for example.

We are also expanding our two-wheeler business. Today, around 60 million two-wheelers with internal combustion engines are produced worldwide each year. According to our estimates, the market will grow to around 110 million units by 2020. About 80 percent of two-wheelers with internal combustion engines are sold in Asia, where small bikes with engines below 250 cubic centimeters are a vital means of transport. Since 2014, we have offered a low-cost electronic fuel-injection system for this market, which provides considerable savings in fuel and emissions compared with the unregulated carburetors prevalent up to now. For these markets, we have also developed a low-cost antilock braking system, featuring just one brake circuit.

We continue to develop safety products for high-performance motorcycles. Even now, every third motorbike in Europe is equipped with ABS. By 2017, this will be mandatory for all motorcycles. In addition, we are pioneers in the field of MSC motorcycle stability control, which ensures much safer braking and acceleration when leaning into bends. We also presented a connectivity control unit for motorcycles for the first time in 2014. This box acts as a communication hub. It is able to gather operational data and, via an automatic emergency call system, to alert the emergency services and summon help to an accident scene. In addition, the box can provide the basis for additional services and connect with external devices such as a smartphone via an additional Bluetooth interface. Initial applications include an advanced on-board computer, troubleshooting software, and an app-controlled immobilizer.

In the area of automated driving, we expect to see an evolutionary process. Legal and technical hurdles must be overcome before fully automated driving can become a reality. A breakthrough is therefore unlikely until the next decade. Partially automated functions will soon be entering series production. Increasingly extensive driver assistance systems form the basis of this development. We cover the entire product range in this area. The product portfolio includes parking assistants, traffic jam assistants, predictive emergency braking systems, road sign recognition, lane-departure warning systems, drowsiness detection, and intelligent lighting control. From 2015 onward, we will be supplying Google with radar sensors, which are a prerequisite for automated driving.

The ABS, TCS, and ESP® electronic braking control systems are fundamentally important for automated driving. Since 2014, ESP® has been mandatory in the European Union for all new vehicles. In 1995, we were the first manufacturer to put ESP® on the market. Since then, we have manufactured over 100 million systems. Other key technologies include radar, video, and ultrasound sensors. Demand for these sensors will likewise increase significantly. In 2014 alone, we sold more than two million radar and video sensors, twice as many as in the previous year. In addition, the MRR rear radar sensor went into series production in 2014. This helps drivers to change lanes safely and provides information for other assistance functions.

Bosch is a pioneer and a leading global supplier of MEMS sensors, of which more than five billion have been manufactured since large-scale series production began in 1995. Besides automotive electronics, another important area of application is consumer electronics. Bosch sensors can already be found in more than half the world's smartphones. The sensors are able to measure more and more different variables. In early 2015, our subsidiary Bosch Sensortec GmbH, Reutlingen, Germany, achieved a world first with the launch of a sensor which measures the pressure, humidity, temperature, and quality of air in a single housing. At the same time, MEMS sensors are becoming increasingly minute. Since 2014, Bosch Sensortec has offered the world's smallest and most economical sensor unit. In one housing, it measures acceleration and yaw rate extremely precisely. Among other things, it is suitable for "wearable" applications such as fitness wristbands.

Another growth trend is the ever increasing connectivity of vehicles, especially due to the possibilities offered by the internet. Navigation and infotainment systems, for which we also expect substantial growth, form the basis. New display and control concepts are required for this purpose. In 2014, we launched an instrument cluster that functions without mechanical moving parts and features a large monitor allowing maximum flexibility

for configuration and display. Other innovations include head-up displays, which present information directly in the driver's field of vision so as to increase safety. In multimedia systems, we have offered an infotainment system with a wide range of connectivity options since 2014. The Bosch integration solution mySPIN allows smartphones and their apps to be integrated very easily and openly into the vehicle's infotainment system. We organized a "hackathon" in Berlin in 2014. Around 30 independent software developers, designers, and innovative internet users were invited to develop additional apps for mySPIN.

In electromobility, we have so far been awarded around 30 contracts. One of them is the Fiat 500e, launched in 2014 with a Bosch electric motor, power electronics, battery pack, and regenerative braking system. Bosch components are also to be found in Google's test fleet, where, in addition to the radar sensor, electric motor, and power electronics, we also supply key parts of the electrical powertrain, as well as the steering system. Each year, we invest around 400 million euros in activities relating to the development of electromobility. We employ around 1,800 people in this area. The beginning of 2014 saw the launch of the new joint venture Lithium Energy and Power GmbH & Co. KG, based in Stuttgart, which we established with the Japanese companies GS Yuasa International Ltd., Kyoto, and Mitsubishi Corporation, Tokyo. The company will develop the next generation of lithium-ion battery technology. Our research and advance engineering sector is also working on future battery technologies.

We regard it as a strategic advantage that we cover the whole electrical powertrain and are thus able to operate as a systems supplier: from the battery – including cells, battery management, and power electronics – through different types of electric motors, to all-round expertise in systems integration. This also includes hybridization of passenger cars, vans, and commercial vehicles. In the future, our boost recuperation system, a 48-volt entry-level hybrid, will allow fuel-saving coasting with the engine stopped. The goal is to develop an electric hybrid for heavy trucks by the end of the decade. Furthermore, our subsidiary Bosch Engineering has premiered a control unit for fuel-cell systems in the off-highway segment. Tougher standards in this sector, particularly in Europe and the United States, are driving the electrification of industrial trucks, municipal vehicles, and airfield vehicles, for example.

For us, however, electromobility goes well beyond the automobile. This is why we are expanding our e-bike and e-scooter activities. We successfully introduced a new generation of drive systems for the e-bike in 2014. China is one of the main markets

for e-scooters. In China alone, 120 million e-scooters are already on the road. An electric motor developed for that country's needs is setting new standards in quality and performance.

In 2014, we collaborated with the Principality of Monaco to carry out a pilot project on smart city services. These services provide a virtual link between the urban infrastructure and public services. Since 2011, the modular software suite of our subsidiary Bosch Software Innovations has provided the basis for a networked and user-friendly charging infrastructure for electric vehicles in Singapore, and since 2013 for a fleet management service in Germany. From 2015 onward, the software suite will be used as a platform for a customized, intermodal transport concept in Stuttgart. A "Charge&Pay" app developed by Bosch for Mercedes-Benz makes it easier for users to recharge electric vehicles at public and internet-enabled charge spots. The app already covers 3,000 such spots and 230 operators. We are also exploring the practical use of electromobility with more than 100 partners from business, academia, and public authorities as part of the "LivingLab BWe mobil" initiative. In 40 projects in southwest Germany, some 2,000 electric vehicles are to be put on the road and over 1,000 charge spots to be installed in the Stuttgart region and the city of Karlsruhe by the end of 2015.

We also operate in the market for telematics services. Via an on-board diagnostics system, information is sent to Bosch for data analysis. Based on the analyzed data, fleet operators can arrange early servicing, for example. We anticipate significant growth opportunities for the eCall emergency call system, since it is expected that all passenger cars and commercial vehicles in Europe will have to be equipped with such an emergency call system from March 2018 onward. We offer not only the on-board unit, but also further support via service centers.

Industrial Technology –
the future world of connected industry

The Industrial Technology business sector's Drive and Control Technology and Packaging Technology divisions operate at different stages of the value chain. In the case of Drive and Control Technology, we operate mainly as a supplier of components and systems for mechanical and process plant engineering businesses in a wide range of industries. Packaging Technology is a specialized mechanical engineering unit that provides solutions relating to packaging.

Drive and Control Technology is currently in the process of reorganization. With its product areas of mobile hydraulics, industrial hydraulics, electrical drives, controls, and linear technology, the division focuses on the mobile and industrial applications market segments. The volatility of mechanical engineering markets in particular calls for leaner and more agile structures. Given the requirements that arise from this, we have taken a first step by announcing a program to improve efficiency at the corporate headquarters of Bosch Rexroth, in the Industrial Applications unit, and in the hydraulics plant at the company's headquarters in Lohr. An important development is the shift in regional demand toward Asia and the Americas, and the resulting challenges with regard to value added. Other needs arise from the rapidly growing importance of mid-price products for emerging markets. These markets can only be partially developed with exports from Germany and Europe. Important global technological trends include energy efficiency, increasing electrification and electronification, and, in particular, the growing connectivity of industrial production.

One example of a cost-effective innovation tailored to local needs in emerging markets is the electrohydraulic hitch control for tractors. In 2014, we began selling this control in India, the world's largest market and manufacturer in this sector. Innovations such as the new generation of frequency converters launched in 2014 contribute to greater efficiency through demand-based delivery of electromechanical energy.

Open core interface technology, launched by Bosch Rexroth in 2014, expands the open core engineering environment and gives mechanical engineers more flexibility. The new interface allows machine manufacturers to independently extend the Bosch Rexroth standard controls to include customized machine functions, so as to generate competitive advantages for their customers and protect their individual process know-how. Bosch Rexroth has also developed a web connector which acts as a bridge to web-based applications and is thus an essential component for exploiting the possibilities of Industry 4.0 in state-of-the-art production facilities.

We aim to be a leading provider in the connected industry market of the future, above all with our activities in the Industrial Technology business sector. We also see ourselves as a leading exponent of connected industry in our own plants, of which there are more than 200 worldwide. We expect significant productivity gains in manufacturing processes with a wide variety of product types, thanks to reduced set-up times and improved logistical processes. We will also achieve savings through greater energy efficiency and better harmonization of machinery and installations with each other and their environment.

Besides hardware and software expertise in the field of mechanical engineering, we have extensive sensor expertise and, in the shape of our subsidiary Bosch Software Innovations, an internet specialist with its own software suite. To take connected industry forward quickly, we have created an internal, cross-divisional innovation cluster which coordinates activities across the company. We have already equipped more than 20 of our factories with RFID (radio-frequency identification) solutions to improve logistical processes in manufacturing. We have also tested various aspects of connected industry in more than 70 pilot projects.

These include new methods of quality assurance, as well as business opportunities arising from proactive maintenance and repair. This requires additional sensors for data collection and pinpointed analysis in real time. At our plant in Blaichach, Germany, we use smart adaptive testing to record data for each individual solenoid valve and are able to reduce test times through customized examination of batches. On an assembly line for hydraulic valves which went into operation at our Homburg location in 2014, we already practice connected production to a large extent and are able to produce a large range of variants without long set-up times.

As a member of the German “Industry 4.0 platform” initiative and the U.S. “Industrial Internet Consortium” (IIC), Bosch is committed to developing the necessary standardization and data security. In addition, we participate jointly with partners in research projects such as CoCoS (context-aware connectivity and service infrastructure for cyber-physical production systems), which is supported by the German Federal Ministry for Economic Affairs and Energy. This project is concerned with integrated information and communication infrastructures that allow systems comprising machines, warehousing systems, and other equipment to share information, even between different companies.

In Packaging Technology, we plan to expand our market presence still further. Europe and North America will continue to drive innovation in the future. We also expect above-average growth in Asia and Africa. We are therefore planning a joint venture in India to complement our Verna (Goa) site, and in this respect have signed agreements to acquire 49 percent of Klenzaids Contamination Controls Pvt. Ltd, Mumbai, which manufactures process, packaging, and clean-room technology for the international pharmaceuticals industry. In Japan, we have moved into a new, enlarged facility devoted to inspection technology. We also intend to develop new sales markets in eastern Europe and South America.

At the same time, we will continue to expand our offering particularly in the pharmaceuticals, foodstuffs, and confectionery industries. We plan to expand our technical expertise and the value chain both through innovation and acquisitions. Furthermore, we will increasingly offer turnkey installations to customers as a complete package. Here, too, the opportunities offered by connected industry will play an increasing role. Our internal automation service provider ATMO belongs to the Packaging Technology division. It began selling its own measuring and production technology products in external markets for the first time in 2014. As well as measuring systems, these also include the APAS production assistant. With its highly sensitive sensor skin, this robot has been certified as able to work with humans directly and collision-free, without the need for additional guards. It provides a flexible solution for the retroactive automation of manual workplaces. In small-series production, it can be used for assembling machines.

Consumer Goods – market position greatly strengthened

At the beginning of 2015, we strengthened the Consumer Goods business sector significantly with the takeover of all shares in the former joint venture BSH. In the future, the business sector will account for around one-quarter of the Bosch Group's total sales. The 50 percent interest was acquired for a price of three billion euros. In addition, a dividend of 250 million euros was paid to each of the previous shareholders prior to closing the transaction. In BSH, we have acquired a leading household-appliance manufacturer, a business that has been successful and profitable over many years with strong brands, and which puts its faith in innovative products. The company will be fully consolidated for the first time this year, and the 2015 annual report will then present full details of the company and its strategy.

With its strategic and technological approach, BSH is an excellent fit for Bosch and our "Invented for life" ethos. The company's products are designed with an emphasis on smart technology, convenience, and ease of use, making the lives of people around the world easier and more comfortable. In particular, it focuses on energy-efficient and resource-conserving products. Technological opportunities exist for increased cooperation between the Bosch Group and BSH, particularly in the promising field of the internet of things. Household appliances will be even more energy efficient in the future thanks to smart-home concepts. Ease of use, functionality, and customer benefit will be enhanced.

The Power Tools division is one of the world's leading suppliers of power tools, accessories, measuring equipment, and garden tools. Bosch Power Tools maintains its outstanding market position above all through regular product innovations focusing on user benefits and, as a result, strong brands. In 2014 alone, we launched more than 100 new products in Germany. The technology remains dominated by the trend toward cordless devices. Nearly half the world's power tools are equipped with rechargeable batteries, and lithium-ion technology is continuing to gain ground. In Europe, it is now used in more than 80 percent of all cordless devices.

Besides continually expanding the product portfolio for cordless appliances and increasingly efficient rechargeable batteries, we are also focusing on innovative wireless charging technology. With our wireless charging system, we are pioneers in the field of inductive charging for cordless power tools. The new chargers and batteries are aimed initially at professional users. Cordless devices are also gaining importance in the world of garden tools. We are expanding our product range to include commercial garden maintenance, and will initially launch cordless lawnmowers and strimmers in 2015. Compared with gasoline-powered appliances, they are not only more convenient but also have the advantage of generating less noise pollution. Furthermore, we are using innovative, brushless EC motors in more and more power tools, which set new standards with regard to product and battery life and are completely maintenance-free. EC stands for electronic commutation; in other words, DC motors with permanent magnets and electronic commutation using transistors.

Power Tools is also expanding its product range in the fast-growing market segment of measurement tools, where we are likewise

aiming for greater connectivity. In 2014, we introduced the GLM floor plan tablet-computer app for professional applications. This allows tradespeople and planners to draw floor plans quickly and easily on a scale of 1:50, using digital technology instead of pencil and paper. We are also winning many new users in the DIY segment with our handy, easy-to-use measuring instruments. As a further innovation in the accessories business, we launched a range of saw blades for professional multi-cutters. The blades' special geometry allows wood and metal to be cut 30 percent faster than with conventional saw blades.

Power Tools is also expanding its offering in online sales and online services. "My Bosch" is a communication platform designed for this purpose. DIYers can share ideas and discuss projects via either the "1-2-do.com" community initiated by us or the Pinterest social network. Bosch experts provide specific assistance relating to Bosch garden tools and power tools if needed. In addition, we use the online channel YouTube to provide information to customers via video. We are also represented on other social networks.

In the medium-to-long term, we anticipate above-average growth opportunities in emerging markets. Here, we are cultivating markets such as China, India, Brazil, and Russia. Market-driven products that take local purchasing power into account are the key to success. One example is the compact cordless screwdriver which we successfully launched in ten countries, including China, South Africa, and India, in 2014.

Energy and Building Technology – a worldwide growth market

We see worldwide growth opportunities in the market for energy and building technology, as demand for energy continues to grow at the same time as requirements for resource conservation and energy efficiency are stepped up. Energy demand has doubled over the past 40 years or so, also due to increasing urbanization. Buildings account for about 40 percent of global energy consumption, with heating taking the largest share of the energy market. However, some 75 percent of all installed heating systems are not energy efficient.

The heterogeneous markets in energy and building technology that have existed up to now are undergoing significant changes. This opens up new potential, above all if intelligent, connected control systems are used. We also expect these markets to converge more and more. However, major regional technical differences continue to exist between Europe and Asia. In the field of energy and building technology, the market for private customers as well as the market for products, systems, and solutions for commercial buildings currently have a worldwide volume of around 60 billion euros. They are recording annual growth of around 4 to 5 percent. The global market for commercial building services is growing even more strongly at around 9 percent, with a current total market of around 20 billion euros.

Our goal is to become a leading global supplier of intelligent energy and building technology. To achieve this, we aim to increase Energy and Building Technology sales to 8 billion euros by 2020. We anticipate major growth opportunities in three business segments: residential buildings, commercial buildings, and services. We are focusing on a combination of technical products and systems as the basis for heating and security installations, software and sensors, and comprehensive services for energy management, remote monitoring, and business process management.

For residential buildings, our portfolio includes eco-friendly products for heating, hot water, and cooling. The intelligent networking of heating systems is playing an increasingly important role. In 2014, we sold around 50,000 internet-enabled boilers, twice as many as in 2013. Smart heating helps to optimize heating systems and allows them to be controlled by devices such as smartphones or tablet computers. Since the spring of 2014, for example, we have offered such an app under our Buderus

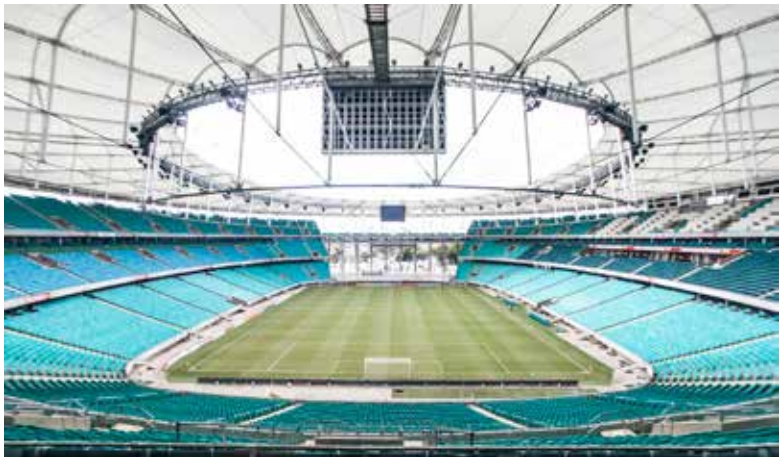
brand, jointly with a major German utility. Another example is the wifi-enabled Nefit Easy thermostat, which we now sell in the United Kingdom as well as in the Netherlands.

In 2014, we presented a system comprising a solar installation combined with modern heat-pump technology and a battery. At the heart of this system is an intelligent controller called e.Control, which is connected to the household's electricity meter and monitors energy use around the home. This solution allows users to consume most of their self-generated solar energy on site. We are also working to globalize the business and establish ourselves in the Chinese market. We benefit from being the first European company to manufacture gas-fired condensing boilers, air conditioners, and commercial boilers for the region in China itself.

For commercial buildings, we offer heating, hot-water generation, cooling, ventilation, power generation, and storage solutions, as well as large-scale heating installations. Especially in the case of commercial buildings, energy efficiency and associated cost savings, as well as the intelligent networking of energy systems, play a significant role. Our product portfolio ranges from networked hot-water and heating systems, highly efficient systems for combined heat and power generation, and waste heat recovery (ORC systems), through cogeneration plants, to electricity storage solutions and energy-efficiency advisory services.

In addition, we are a leading international supplier of products, solutions, and services for security and communication. The main priority is the protection of human life, buildings, and property. Around half the business currently relates to video surveillance with internet-enabled cameras. In 2014, we launched further new products. With them, we are setting new standards in areas such as the detailed monitoring of large sites, including football stadiums. In 2015, we will launch innovative products allowing 360-degree video surveillance.

We are also expanding our building technology business, which up to now has been focused on Germany, the Netherlands, and Switzerland. In this area we offer a one-stop shop for the planning, construction, maintenance, and financing of security systems and solutions. Our main customers are the manufacturing industry, the public sector, banks, and service providers.



In this context, integrated and connected security solutions are playing an increasing role.

A further strategic element is the expansion of our service business, with which we aim to achieve sales of around one billion euros by 2020. We took an important step in the North American market at the beginning of 2015 with the acquisition of Climatec, LLC, based in Phoenix, Arizona (USA). This company offers building-automation, energy-efficiency, and security solutions. We also intend to grow our services in the field of energy efficiency through our service subsidiary Bosch Energy and Building Solutions, which is active in the German and European markets.

Furthermore, we have reorganized our business services operations, which are assigned to the Security Systems division. In this business, we are already one of the world's biggest providers. Since fall 2014, these services have no longer been provided under the Bosch Communication Center name, but as Bosch Service Solutions. This underlines our broader approach as a provider of services for business processes. Focal points include service solutions for transport and buildings, as well as customer communications and support. In the field of transport, for example, Bosch offers the automatic eCall emergency service for Mercedes-Benz vehicles in 27 European countries and ten languages. For buildings, Bosch Service Solutions offers cloud-based video surveillance, which can be connected to a control center that intervenes in response to certain events. We are already represented at 26 locations in 15 countries. In 2014, two new locations were added in the U.S. and the Philippines. Further locations are planned in the Americas and Asia. Independent studies forecast annual growth in the market for business process services of 5 to 6 percent, reaching a total volume of more than 200 billion dollars by 2017.

Our cross-selling activities are also assigned to the Energy and Building Technology business sector. Here, we offer solutions that are aimed in particular at verticals such as mining, hotels, large stadiums, airports, automobile manufacturing, train stations, and theaters. In 2014, we already achieved sales of more than 600 million euros through cross-selling. This included, for example, joint activities by the Drive and Control Technology, Security Systems, Automotive Aftermarket, and Power Tools divisions relating to the widening of the Panama Canal. For the renovation of the Cologne Opera, Drive and Control Technology

is supplying stage equipment, while Thermotechnology and Security Systems are supplying parts of the building technology.

Using agile units to enter new business areas

The accelerating pace of change in our business environment opens up additional opportunities through new business activities. We set aside an overall budget of approximately one percent of sales per year for new or related business areas. We deploy agile, independent teams to develop these new areas. Fields that are fundamentally new to the Bosch Group are designated new business areas. At Bosch Healthcare Solutions GmbH in Waiblingen, Germany, we have brought different approaches in the field of medical technology together under one roof. At the same time, we are divesting our telehealth and telecare operations. One of our new business areas' focal points is stationary electricity storage. This includes the Braderup project, a hybrid battery with a total capacity of 3 MWh which went into operation in 2014. It stores electricity generated by a community wind farm and feeds it into the grid as required. We designed and built the hybrid, and developed the electronic control system and related software.

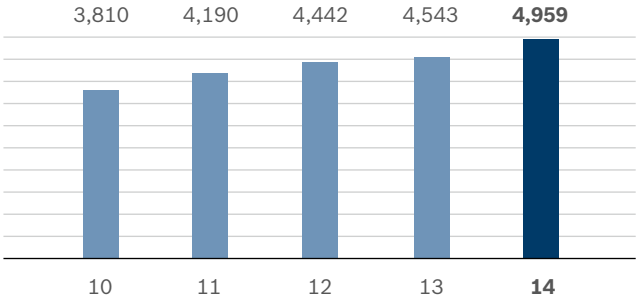
We use innovation clusters to develop new business areas on the internet of things on a cross-divisional basis. Here, we combine the IT and internet expertise of Bosch Software Innovations with the domain expertise of our divisions. Bosch Connected Devices and Solutions, based in Reutlingen, Germany, grew out of such an innovation cluster. It now has a workforce of around 100. Since 2014, it has offered compact electronic products and software know-how for connecting devices and objects on the internet of things. At the end of 2014, we announced our intention to set up an international joint venture with ABB and Cisco. Its aim will be to develop and operate an open software platform for smart-home applications. It is hoped that this will allow easy exchange of data between different manufacturers' devices.

Furthermore, Robert Bosch Start-up GmbH, Ludwigsburg, Germany, commenced operations in 2014, providing internal start-ups with premises and infrastructure, a legal framework, and business expertise. We address the special needs of emerging markets with new business teams in those countries. For example, a team in India has developed a low-cost method of eye examination, which can give early warning of the onset of blindness, and thus allow preventive measures to be taken. In mature markets too, we aim to systematically develop additional growth opportunities, and have set up region-specific projects in Europe, North America, and Japan. Moreover, Robert Bosch Venture Capital GmbH, based in Gerlingen, Germany, participates in start-up companies and thematic funds.

But agile teams are not only employed to develop new business areas. In our existing businesses, we are using pilot projects to gather experience in order to prepare for dynamic changes. For example, the Car Multimedia division has a number of self-organizing teams. In a rapid succession of flexible development stages, working at the interface with the fast-paced world of consumer electronics, they develop software components and apps for the connected vehicle. Within Chassis Systems Control, we have worked with globally networked teams to develop chassis and safety systems for our customer Tesla. For this,

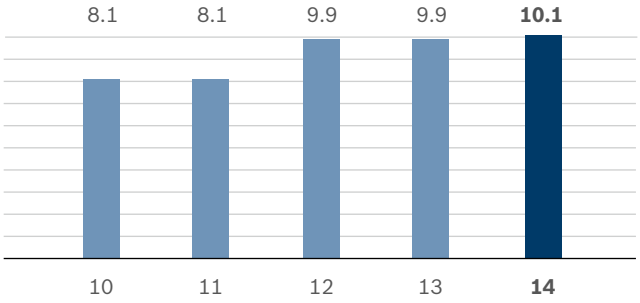
F.03

Total research and development cost[1]
Bosch Group 2010–2014
Figures in millions of euros



F.04

Total research and development cost[1]
Bosch Group 2010–2014
Figures as a percentage of sales revenue



[1] Including development cost charged directly to customers

we received Tesla's "Excellent Development Partner" award in 2014. In the Power Tools division, a pilot project is underway to develop a new platform for pneumatic hammers at our location in Hangzhou, China. The project focuses on customer needs in emerging markets.

Standardized processes –
the basis for greater efficiency and agility

In a large company, simplified and standardized processes are an important prerequisite for greater efficiency, but also for more flexibility. We are developing a number of projects in this area. The "One BBM" project in the Mobility Solutions business sector creates the basis for simplified, cross-divisional collaboration. The goal is to standardize all processes from order placement to receipt of payment. This includes standardization of IT systems. A closely related issue is the development of central services in financial accounting (shared services). In the "OneAccounting at Bosch" project, we are bringing together all finance and accounting functions throughout the world. We intend to increase efficiency and effectiveness through consistent rules and IT standards, and by setting up a small number of specialized shared service centers.

The "target business plan" project that we have started in management accounting will have considerable implications. It will greatly simplify and speed up the process of group-wide business planning, and reduce planning effort. Targets derived from external benchmarks will be taken as the starting point for planning. The focus will then be on developing and carrying out measures designed to achieve the planning targets. We will introduce the target business plan for the first time in 2015, in the context of the 2016 business plan.

When it comes to simplifying processes, we deliberately involve Bosch associates. One example is the oneIT@i-Buy project, which creates a user-friendly environment for the procurement of indirect materials such as office supplies or IT services. The resulting Simplify! BonaPARTe procurement tool is now being introduced. A new, user-friendly interface with fewer input fields and an automatic, cross-catalog search feature quickly guides the user to the required product. A high degree of standardization and simplified sign-off rules also help speed up and simplify the operation. The "Bosch Human Resources System 3.0" project was also further rolled out in 2014. The multi-year project aims to introduce a new worldwide HR organization and an integrated information system, known as HR Global. So far it has already been introduced in more than 50 countries; by the end of 2015 it should cover more than 70.

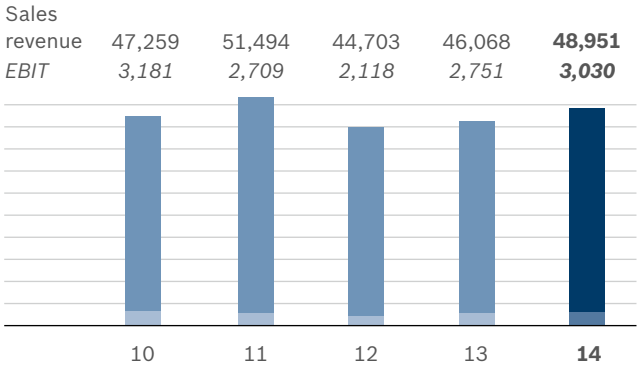
Report on economic position

A good performance overall

The Bosch Group developed favorably overall, despite a weak economic environment. Sales growth was greater than forecast. In addition, our earnings forecast was fulfilled. Developments varied considerably across the business sectors and regions. The most successful business sectors were Mobility Solutions and Consumer Goods, while Asia Pacific and North America reported the best sales performance regionally.

F.05

Development of sales revenue and *EBIT*
Bosch Group 2010–2014
Figures in millions of euros



Controlling system

The Bosch value concept as the basis for control
The Bosch value concept combines value creation with value preservation in order to achieve the group's business targets even in a complex, dynamic, and volatile environment. 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. We secure value by closely tracking cost trends and through liquidity management that includes centralized financial planning.

The main control parameters 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. 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. The earnings fluctuations associated with these factors are adjusted for operational control and the executive incentive program.

Value contribution targets are used to calculate the result-based portion of executives' variable remuneration, from section-manager level to the board of management. They are also used for calculating associates' performance-related bonuses. The value contribution is also the basis for portfolio management. 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 both a variance analysis of target versus actual figures and a year-on-year comparison. The report is based on the business plan, which draws on comprehensive market forecasts and is embedded into longer-term strategic corporate planning.

Macroeconomic and sector-specific environment

Weak economic environment
World economic output, measured on the basis of global GDP, rose by 2.7 percent in 2014, just below our forecast of 2.8 percent. We began the fiscal year with a cautious assessment that economic conditions would improve only slightly compared with 2013. The only development we did not expect was the severe deterioration of the economy in South America, particularly Brazil. Total economic output in the advanced economies grew by 1.8 percent, somewhat stronger than the forecast of 1.6 percent. On the other hand, emerging markets grew by 4.3 percent, lagging behind our estimate of 5 percent.

At 2.7 percent, global economic growth in 2014 was again below the long-term trend of 3.3 percent. Reasons included the lingering effects of the sovereign-debt crisis in Europe, political tensions in eastern Europe, Japan's disappointing performance, and structural problems in a number of emerging markets. Added to this was the critical situation in certain countries in the Middle East. On the other hand, the North American economies performed positively. China again recorded strong growth of 7.4 percent, though this was well below the growth rates of previous years.

On average, commodity prices developed more weakly than we originally anticipated. In particular, oil and other fuel prices decreased significantly over the course of the year. Industrial and precious metal prices also fell year on year, in some cases significantly so. We believe this was due to slower growth in emerging markets and, in the case of oil and gas, increased supply. The euro performed largely as expected over the year. The average exchange rate of 1.33 euros to the dollar was slightly above our forecast of 1.30 euros. However, the euro recorded an unexpectedly sharp fall in the second half of the year.

In our core markets, the total number of vehicles produced worldwide in 2014 reached 90.4 million units, an increase of around 3 percent compared with the previous year, and thus in line with our growth forecast. Production of heavy trucks reached 3.1 million units, slightly less than the previous year. In our previous year's forecast we had assumed growth of 1 percent. Production of passenger cars and commercial vehicles in the European Union increased by 4 percent, a better performance than forecast, as we had expected only slight growth. Vehicle production in North America rose by 5 percent, a further slight year-on-year increase. Contrary to expectations, production figures in South America fell by a double-digit amount. As predicted, the strongest growth in vehicle production was in China, with an increase of 8 percent. However, this meant the growth rate fell to roughly half the previous year's. In India, production figures declined slightly owing to a weak first half-year, while our forecasts had predicted slight growth.

Weak economic performance overall in 2014 dampened global investment activity to a slightly lesser extent than in previous years. However, the performance of the mechanical engineering sector was disappointing overall. Admittedly, mechanical engineering output grew respectably, by just under 5 percent, well above the previous year's figure of 1.3 percent. However, production has stagnated since the spring of 2014. This mainly affected the emerging economies, notably Brazil and Russia, but also China to a lesser extent. In our important core European market, mechanical engineering production recovered slightly in the second half of the year, and slightly exceeded its prior-year level. Order intake also climbed slightly, which points to a moderate increase in European mechanical engineering.

Global private consumption grew by 2.3 percent in 2014, slightly below the forecast of 2.5 percent. This was mainly due to a weaker increase in emerging markets. But in the advanced economies too, consumption lagged behind our forecast. This particularly affected Japan, where households significantly reduced their spending after value added tax was increased in April 2014. Southern European countries, which were particularly affected by the European sovereign-debt crisis, showed rising levels of consumption for the first time since 2011. Global construction activity, as measured by construction expenditure, was more or less as we expected, and slightly stronger than in 2013. In the euro zone, this expenditure once again fell slightly. Moreover, construction activity in the Americas and Asia did not grow as strongly as in 2013.

Course of business and sales trend

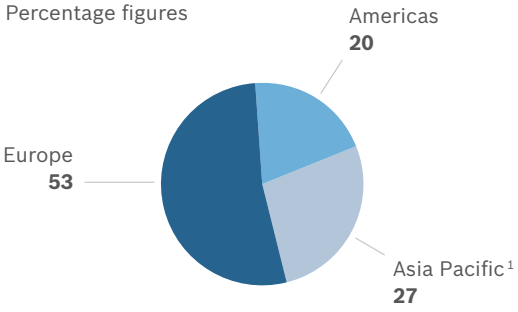
Sales growth better than forecast

Despite only moderate global economic growth, the Bosch Group's sales rose by 6.3 percent to 49 billion euros. These figures exclude the discontinued crystalline photovoltaics business. The discontinued photovoltaics business achieved a low sales figure of 20 million euros in 2014. After adjusting for exchange-rate effects, Bosch Group sales exceeded the prior-year figure by 7.4 percent. Sales growth thus comfortably exceeded the forecast target range of 3 to 5 percent. Exchange-rate losses caused by the euro's temporary strength total approximately 500 million euros. Our forecast had assumed exchange-rate effects of around 1 billion euros. The most significant exchange-rate effects in Europe were recorded against the Russian ruble and Turkish lira, in South America against the Brazilian real, and in Asia against the Indian rupee, Japanese yen, and Korean won. On the other hand, the exchange-rate effects over the year against the U.S. dollar were comparatively small.

The sales effects as a result of divestments are in total 170 million euros higher than the effects from newly consolidated companies. The main new consolidations relate to the regional company in Indonesia, several companies in China, and Bosch Energy and Building Solutions.They are countered above all by the sale of the Drive and Control Technology division's pneumatics segment at the beginning of 2014. The complete acquisitions of the joint ventures BSH Bosch und Siemens Hausgeräte GmbH and

F.06

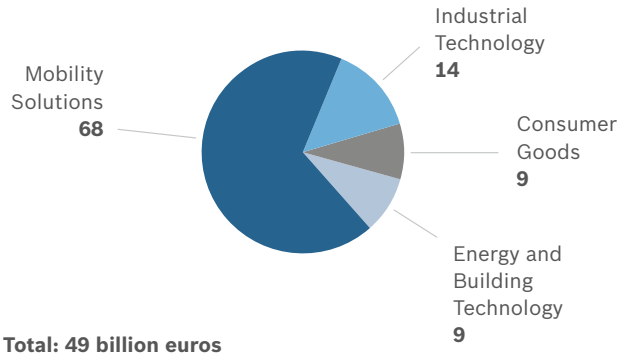
Sales structure by region
Bosch Group 2014
Percentage figures



Total: 49 billion euros
[1] Including other countries

F.07

Sales structure by business sector
Bosch Group 2014
Percentage figures



Total: 49 billion euros

ZF Lenksysteme will not affect the reported sales figures until 2015. The same applies to the acquisition of the U.S. building service provider Climatec. In December 2014, we disposed of our Garden and Watering unit, based in Peoria, Illinois (USA). However, this is still included in the 2014 sales figures.

Strongest regional growth in Asia Pacific

Regionally speaking, our strongest sales growth was in Asia Pacific, with a double-digit increase of 17 percent in nominal terms to 13 billion euros, and 19 percent after adjusting for exchange-rate effects. At just under 27 percent of total sales revenue, the region's share of sales reached a new high. Sales growth was especially strong in China, rising a nominal 27 percent to 6.4 billion euros. More stringent emissions regulations led to strongly increased demand for new generations of diesel and gasoline injection systems. But in other areas too, such as display systems, we achieved good growth. Sales in Korea were also very strong compared with the previous year. This is partly because we now operate the business with engine management systems for gasoline-powered vehicles ourselves, after an earlier joint venture was wound up. In India, sales growth picked up again year on year, particularly in local currency. In Japan too, we recorded significant growth in local currency terms.

In North America, sales reached 8.5 billion euros, an increase of 8.6 percent in nominal terms and 9.3 percent after adjusting for exchange-rate effects. This was primarily thanks to the Mobility Solutions business sector, but Industrial Technology also posted a good sales performance. On the other hand, we suffered a significant decline in sales in South America. In particular, Brazil's automotive industry faced a difficult economic situation, leading to a sharp decline in production figures. This was compounded by the depreciation of the Brazilian real. Sales in South America decreased by 13 percent in nominal terms to 1.5 billion euros. After adjusting for exchange-rate effects, the decline was 4.4 percent. In Europe we were able to increase sales by 2.1 percent to 26 billion euros. This was a positive result against the backdrop of a still difficult economic situation in the euro zone, tensions in eastern Europe, and negative effects due to the sale of the pneumatics segment. In Russia, sales in euros decreased significantly, though in local currency our sales increased.

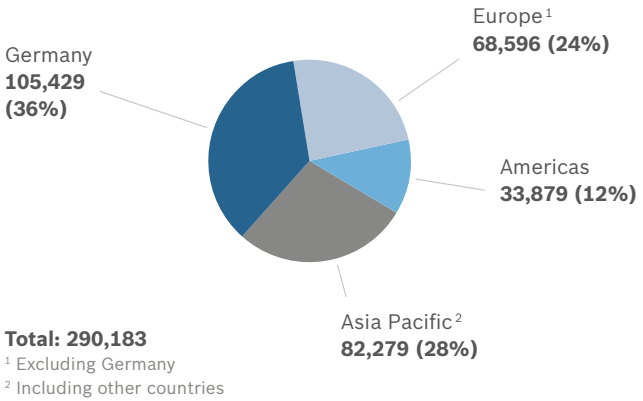
Mobility Solutions the fastest growing business sector

Performance also varied by business sector. As forecast, sales in the Mobility Solutions business sector rose by more than the average for the company as a whole. Sales rose 8.9 percent to 33.3 billion euros, an increase of 9.9 percent after adjusting for exchange-rate effects. In particular, there was strong demand for modern gasoline direct injection systems, transmission control systems, and continuously variable transmissions in 2014. Especially in Europe and China, our diesel technology business benefited from the ramp-up of new injection systems that meet the more stringent new Euro 6 and China IV exhaust emission standards. Exhaust-gas treatment systems remained very much in demand.

We achieved strong growth with innovative infotainment systems. There was a very substantial increase in demand for driver assistance systems. Brake control systems also developed favorably. Sensors, particularly sensors for consumer electronics, performed very positively. We also enjoyed great success in drive systems and control units for bicycles with an additional electric drive. In the Starter Motors and Generators division, we were successful with new generations of products such as start-stop systems. Bosch alternators for commercial vehicles were also in demand. The Electrical Drives division noticed the effect of its improved competitive position, which was due to

F.08

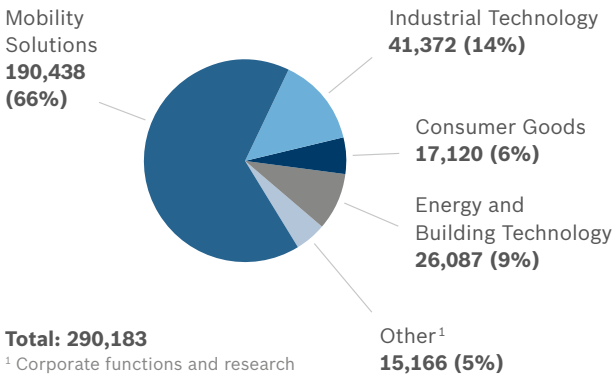
Associates by region
Bosch Group 2014, as per Dec. 31, 2014



Total: 290,183
[1] Excluding Germany
[2] Including other countries

F.09

Associates by business sector
Bosch Group 2014, as per Dec. 31, 2014



Total: 290,183
[1] Corporate functions and research

new heating and air-conditioning products. The spare parts business declined somewhat in 2014, especially in the independent aftermarket segment.

Sales in the Industrial Technology business sector continued to lag behind forecast. Sales declined by 2.0 percent in nominal terms to 6.7 billion euros, a drop of 1 percent allowing for exchange-rate effects. However, this was partially due to the disposal of the Drive and Control Technology division's pneumatics business at the beginning of 2014. Excluding these consolidation effects, sales increased by 2.5 percent, and 3.6 percent after adjusting for exchange-rate effects. Continuing economic weakness in the mechanical engineering segment particularly affects the Drive and Control Technology division. The market in China especially, where we made substantial investments in previous years, performed less well than expected. The packaging machinery business was stable, but there were regional differences. High growth rates in North America and eastern Europe were offset by declines in Asia and South America. Packaging machinery for the pharmaceuticals industry performed well, as did services. Our business with major international companies in the foodstuffs sector was also successful.

In the Consumer Goods business sector, sales rose by 5.0 percent in nominal terms to 4.2 billion euros, an increase of 7.0 percent after adjusting for exchange-rate effects. The sales figure relates to the Power Tools division only, as the previous fifty-fifty joint venture BSH was not yet consolidated in 2014. Power Tools again achieved very good results with a range of innovations. This concerns not only the expansion of our range of high-performance cordless appliances, but especially also laser devices in the measuring tools segment. The PLR15 digital laser rangefinder, aimed at the DIY market, has been sold nearly one million times since its launch at the end of 2013. Demand for garden tools and accessories was also good.

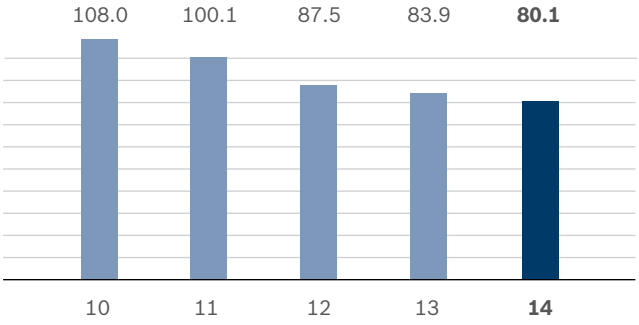
In the Energy and Building Technology business sector, we achieved sales of 4.6 billion euros with the Thermotechnology and Security Systems divisions. This was a nominal 1.7 percent above the previous year's figure, or 2.6 percent adjusted for exchange-rate effects. The Thermotechnology division was affected by the weakness of the German market. Demand in Russia also fell significantly short of expectations. On the other hand, the business performed well in the important U.K. market. The service subsidiary Bosch Energy and Building Solutions, consolidated for the first time, generated strong sales growth. The Security Systems division increased its sales in the building technology business, especially in its main market Germany, and in the product business, particularly in the case of IP-based video systems and portable speaker systems.

Rise in number of associates worldwide

Disregarding the joint-venture takeovers that have since been closed, the number of Bosch Group associates worldwide rose by 8,800 to 290,200. It should be noted that the 2,100 associates of the now divested pneumatics segment of the Drive and Control Technology division, as well as the workforce of the discontinued crystalline photovoltaics operations, were still included in the previous year's figures for 2013. Shortly before the end of 2014, we disposed of our Garden and Watering unit in the U.S., with its workforce of around 460. On balance, the effects of consolidation on headcount canceled each other out in 2014. Through first-time consolidations, 4,400 associates were added, while 4,200 people ceased to be employed by the Bosch Group owing to deconsolidation and divestments.

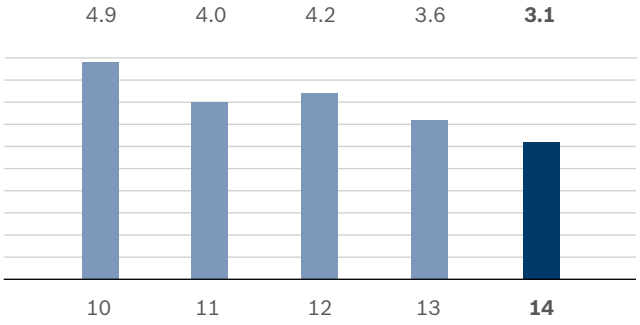
F.10

Development of CO_2 emissions
Bosch Group
As a percentage of value added[1]



F.11

Development of occupational health and safety
Bosch Group accident rate, 2010–2014
per million hours worked



[1] Difference between total net sales (third-party sales, intercompany sales, internal deliveries) and planned cost of materials procured externally

The biggest change in associate numbers took place in Asia Pacific (which in this case comprises other regions including Africa). The number of associates there rose by 8,800 to 82,300. In Europe, the number of associates was virtually unchanged at 174,000. The reduction caused by the disposal of pneumatics and photovoltaics was offset by expansion in Romania, Turkey, and Hungary. In Germany, the number of associates declined by 1,900 to 105,400, again largely due to consolidation effects. In North and South America, the number of associates increased by a total of roughly 400 to 33,900. The number in North America rose by around 700 to 25,300. In South America, it fell slightly by some 300 to 8,600. The number of associates employed worldwide in research and development increased by approximately 3,000 in 2014, to 45,700.

Training and continuing professional development are very important at our company. Worldwide, around 6,100 young people were in apprenticeship schemes at Bosch in 2014. Germany leads the field here with 4,300 apprentices. This is due to the strong tradition of dual education in companies and schools. At our locations worldwide, moreover, we have many training centers of our own that provide training specifically for technical trades. These include locations in France, Turkey, India, China, and Vietnam, as well as Brazil and North America. In 2014, we created around 100 additional apprenticeships for young people from southern Europe, about half of them in their countries of origin (Spain, Portugal, Italy) and half in Germany.

In 2014, we spent around 200 million euros on associate training, providing a total of 46,000 classroom-based events for 515,000 participants, significantly more than the previous year. On average, each of our associates attended 1.8 classroom-based events. In addition, 300,000 web-based training modules were completed. The Robert Bosch Kolleg offers continuing professional development at college level for specialists and executives.

We made further progress toward our goal of further increasing the number of international executives and of women in leadership positions. In the overwhelming majority of our focus countries, the percentage of local executives now stands at over 80 percent. We managed to raise the share of women in leadership positions, from 12.2 percent in 2013 to 12.9 percent in 2014. Our target is 20 percent by 2020. In countries such as China or Spain, this target is already exceeded. In 2014 we held our first global Diversity Day. For 24 hours, there were participative campaigns, discussions, and networked events around the world, designed to demonstrate the diversity within the Bosch Group. Diversity also means having mixed-age teams. Bosch has operated a senior expert model for the last 15 years. Besides Germany, Bosch Management Support GmbH has subsidiaries in the United Kingdom, the United States, Japan, Brazil, and India. At the present time, 1,600 former associates who retired for age reasons make their experience and expertise available when professional advice is needed for a limited period.

Great importance of environmental protection and occupational health and safety

Bosch has always considered environmental protection 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 management.

For us, “Invented for life” is also about reducing the environmental impact of our production processes. Our target for 2020 is to cut relative, production-related CO_2 emissions from our locations

T.01

Most important items of the income statement
Figures in millions of euros

	2014	2013
Sales revenue	48,951	46,068
Cost of sales	–31,963	–30,460
Gross profit	**16,988**	**15,608**
Distribution and administrative cost	–9,469	–8,562
Research and development cost	–4,959	–4,543
Other operating income and expenses	214	86
Profit from entities consolidated using the equity method	256	162
EBIT	**3,030**	**2,751**
Financial income	345	76
Profit before tax	**3,375**	**2,827**
Income taxes	–714	–540
Profit after tax		
from continuing operations	2,661	2,287
from discontinued operations	–24	–1,036

by 20 percent from their 2007 level. In 2014, CO_2 emissions were already 19.9 percent lower than the 2007 reference level. At 2.5 million metric tons, they were on the same level as in the previous year. The effects created by the disposal of the energy-intensive photovoltaics business and by the first-time consolidation of energy-intensive sites such as the spark plug manufacturing facility in Nanjing largely balance each other out.

Our total energy consumption came to 6,102 gigawatt hours (previous year: 6,218 gigawatt hours). We are achieving further improvements with regard to CO_2 emissions through measures aimed at optimizing the energy value stream. For example, we have optimized the control unit assembly lines in the Automotive Electronics division. As a result, we are saving around 3,000 metric tons of CO_2 there.

We also attach immense importance to making continuous improvements in occupational health and safety. The total number of job-related accidents stood at 1,660 in 2014, compared with 1,787 in 2013. The relative number of job-related accidents per million hours worked further decreased to 3.1 (previous year: 3.6). This figure was also well below the current target figure of 3.4. We intend to make further progress in the coming years, and have therefore started worldwide training for executives using web-based training modules.

Results of operations

Further improvement in operating result

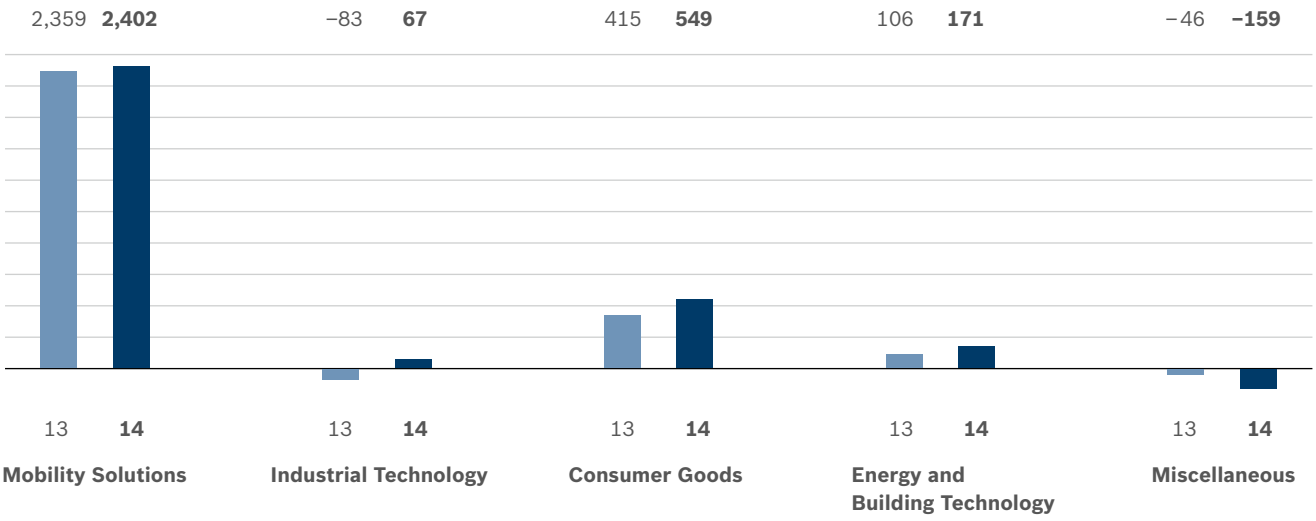
We fulfilled our forecast for result in 2014. In our continuing operations, we were able to slightly improve EBIT (earnings before interest and taxes). It rose to 3 billion euros, compared with a like-for-like previous-year figure (excluding the discontinued operations in crystalline photovoltaics) of 2.8 billion euros. In 2014, the impact on result due to discontinued operations was small. The related decline in EBIT amounted to 24 million euros. We improved EBIT margin by 0.2 percentage points to 6.2 percent, and by approximately one percentage point excluding exceptional items and consolidation effects. Last year's exceptional net gain of 370 million euros, which resulted from the revaluation of the assets of the Chinese subsidiary United Automotive Electronic Systems Co., Ltd., Shanghai, is significant in this respect. The company was fully consolidated for the first time in 2013.

The improvement in result is a further step toward our target EBIT margin of 8 percent. Compared with the previous year, and including the separately reported activities in crystalline photovoltaics, EBIT improved quite significantly. Including the cost of exiting this business, in 2013 we posted EBIT of only 1.5 billion euros and an EBIT margin of 3.2 percent.

Of the most important income-statement items, cost of sales increased by just under 5 percent, and thus at a slower rate than sales. Gross profit as a ratio of sales thus improved by roughly one percentage point year on year. Distribution and administrative cost increased by some 11 percent, and thus at a higher rate than sales. This was due to additional burdens in sales, mainly as a result of higher warranty provisions. At 5 billion euros, research and development cost is some 400 million euros higher than in the previous year. R&D intensity rose to 10.1 percent, compared with 9.9 percent in the previous year. The Mobility Solutions business sector accounted for around 82 percent of development costs, while Industrial Technology accounted for around 8 percent, and Consumer Goods (including other activities) and Energy and Building Technology for roughly 5 percent each.

F.12

EBIT by business sector
Bosch Group 2013/2014
Figures in millions of euros



Profit before tax totaled 3.4 billion euros and corresponded to a margin of 6.9 percent. At 345 million euros, financial income is 269 million euros up on the previous year. The main reasons are positive effects from changes in exchange rates and an improved investment result. We thus report an improved profit after tax from continuing operations of 2.7 billion euros, compared with 2.3 billion in the previous year. Including the discontinued photovoltaics business, we achieved an after-tax profit of 2.6 billion euros in 2014, compared with 1.3 billion euros in 2013.

Our internal control parameter, the operating value contribution, is calculated only for the consolidated group used in internal reporting. The operating value contribution – exclusive of all activities in photovoltaics – is positive at around 400 million euros. In 2013, operating value contribution was negative, at minus 220 million euros. The significant improvement in the operating value contribution relative to EBIT is especially due to the different method of calculation. The operating value contribution was not affected by the non-recurring net gain as a result of the revaluation of the assets of the Chinese subsidiary United Automotive Electronic Systems in the previous year.

The most crucial difference between EBIT and the operating value contribution is the imputed 2.6 billion-euro (previous year: 2.5 billion-euro) cost of capital, which reduces the operating value contribution compared with EBIT. Further differences in depreciation and amortization and other items total some 0.1 billion euros (previous year: 0.5 billion euros).

Of our business sectors, Mobility Solutions generated EBIT of 2.4 billion euros, or an EBT margin of 7.2 percent. Margin was thus lower than in the previous year. To a large extent this was due to the extraordinary net gain of the revaluation of assets following the full consolidation of the Chinese company United Automotive Electronic Systems in the previous year. Without this one-off effect, the year-on-year improvement in result is roughly 0.9 percentage points. On the other hand, the revaluation of the net assets of United Automotive Electronic Systems in the previous year will lead to increased depreciation and amortization from 2014 onward. Additional quality provisions also have a negative impact.

Due to a sluggish performance, the Industrial Technology business sector posted a positive result of only 67 million euros, which was however an improvement on the negative EBIT of around 80 million euros reported in the previous year. We have launched an extensive program to improve the business sector's result. EBIT in the Consumer Goods business sector amounted to around 550 million euros (previous year: 415 million euros) The double-digit margin of 13.1 percent was attributable to the inclusion of the pro-rata after-tax income of the joint venture BSH Bosch und Siemens Hausgeräte GmbH. In the Energy and Building Technology business sector, we increased result to around 170 million euros, against 106 million euros in the previous year. Margin was 3.7 percent, compared with 2.3 percent the previous year. We are working hard to further improve the business sector's profitability.

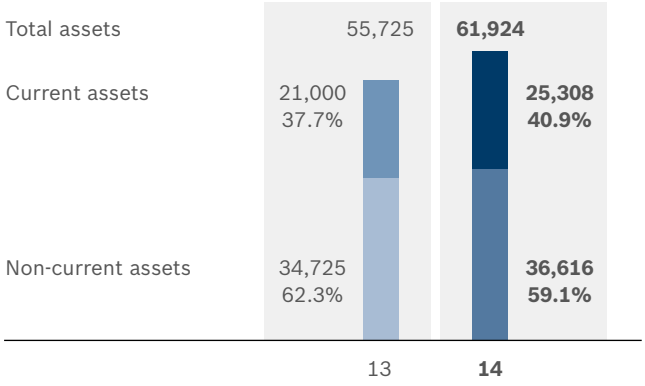
Net assets and financial position

Very solid statement of financial position

As before, the statement of financial position remains very solid. Our 2014 equity ratio was roughly 48 percent, compared with roughly 50 percent the previous year. This still includes

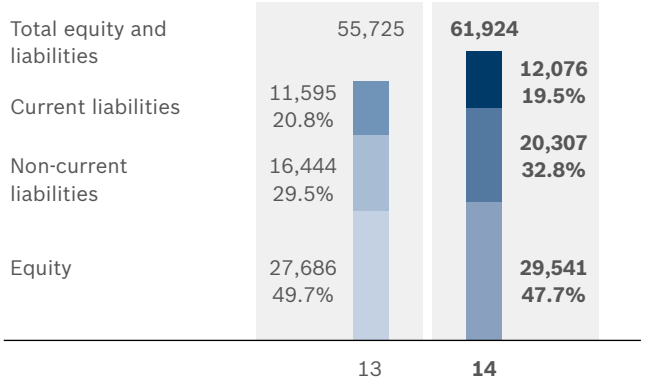
F.13

Structure of the statement of financial position
Bosch Group 2013/2014
Assets
Figures in millions of euros and as a percentage of total assets



F.14

Structure of the statement of financial position
Bosch Group 2013/2014
Equity and liabilities
Figures in millions of euros and as a percentage of total equity and liabilities



only the pro-rata share of equity of the joint venture companies fully taken over by the beginning of 2015. On the balance-sheet date, total assets stood at 61.9 billion euros, against a prior-year comparative figure of 55.7 billion euros.

The increase in assets was primarily due to a 2.4 billion-euro increase in financial assets. Liquidity as reported in the statement of financial position stood at 15.6 billion euros on the balance-sheet date, compared with 13.2 billion euros in the previous year. Apart from cash and cash equivalents, liquidity as per the statement of financial position includes marketable securities and bank balances with a term of more than 90 days. Thanks to good financial resources, we were able to finance the acquisition of all shares in the previous fifty-fifty joint ventures without difficulty. Non-current assets also increased disproportionately. Other key factors included an increase in property, plant, and equipment, higher trade receivables, and larger inventories as a result of increased sales and exchange-rate effects.

The biggest changes in equity and liabilities concerned the provisions reported under non-current liabilities, mainly because of higher pension provisions. Due to the reduction in discount rates, particularly for pension obligations in Germany, these had to be adjusted from an average of 3.5 percent in the previous year to 2 percent. The resulting increase in pension provisions was recognized in other comprehensive income, which negatively impacted equity by 1.8 billion euros. In total, however, equity rose by a total of 1.9 billion euros to 29.5 billion euros, essentially due to the good earnings situation and to exchange-rate effects. Other significant changes on the equities and liabilities side involved financial liabilities, which increased by approximately 700 million euros.

We took advantage of favorable interest rates to place two new bonds with maturities of 10 and 25 years for a total volume of 1 billion euros. The bond placement increased the proportion of financial liabilities raised in the capital markets, while lowering the level of bank borrowings. The bond interest rates are between 1.543 percent and 5.125 percent. The average maturity of the financial liabilities also increased because of the long terms of the new borrowings. Nonetheless, the more favorable interest rates meant that the average interest rate of the financial liabilities was reduced. Most of the remaining financial liabilities are denominated in euros.

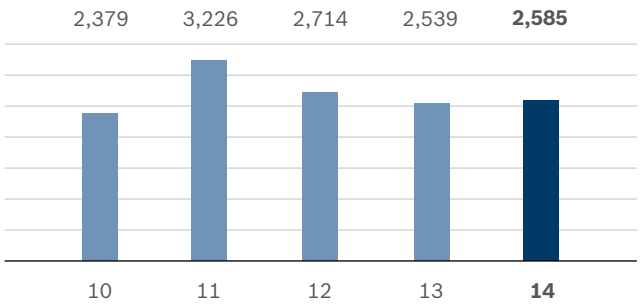
Rise in capital expenditure

Bosch Group capital expenditure amounted to approximately 2.6 billion euros in 2014, some 50 million euros more than in 2013. As at the balance-sheet date, existing investment commitments as a result of orders already placed totaled roughly 500 million euros. Thanks to our very good liquidity position, we have ample financial resources at our disposal.

We invested around 1.7 billion euros in our European locations, compared with 1.6 billion euros in the previous year. Capital expenditure in Germany was roughly 1.1 billion euros, compared with 910 million euros the previous year. Focal points included the expansion of capacity for semiconductors and sensors, particularly at the Reutlingen location, and in the areas of gasoline direct injection systems and diesel technology. We also started moving into the new research center in Renningen, close to our corporate headquarters, which will be completed in 2015. This multi-year investment project will cost around 300 million euros in total. Another large-scale, multi-year project is the expansion of the main distribution center for vehicle spare parts in Karlsruhe.

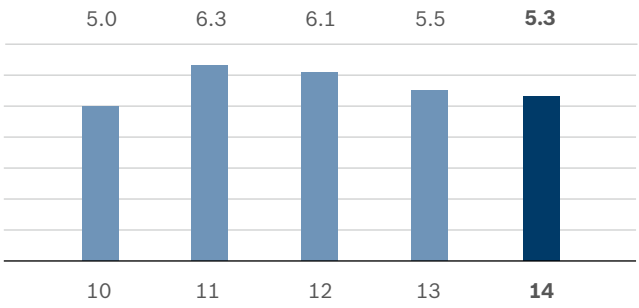
F.15

Capital expenditure
Bosch Group 2010–2014
Figures in millions of euros



F.16

Capital expenditure
Bosch Group 2010–2014
As a percentage of sales revenue



There was significant investment in Europe outside Germany in the new automotive technology plant in Samara, Russia, though we are diluting our plans somewhat in view of the market situation. Among other things, it will manufacture antilock braking systems, wiper systems, and alternators; later it will also manufacture starters. In addition, the Thermotechnology division opened a new plant in Engels, Russia, in 2014, where we manufacture industrial boilers and wall-mounted conventional boilers. We also completed our new Russia headquarters in Moscow and further expanded the development center in Budapest. At our location in Cluj, Romania, we started manufacturing operations for electronic control units. In Bursa, Turkey, we expanded our manufacturing operations for high-pressure injectors for diesel vehicles. For this, we are investing around 300 million euros in total between 2013 and 2015.

In Asia Pacific, we invested around 620 million euros, after 615 million euros the previous year. Here, the investment in expanding capacity related especially to locations where we produce diesel and gasoline direction injection systems, above all in China. We also set up a new location in Qingdao, China. In Ho Chi Minh City, Vietnam, we began the construction of a new development center. Another focal point was India, where we invested around 160 million euros in the expansion of existing manufacturing facilities and a new software and engineering center at the Bangalore location.

In North and South America, we invested some 220 million euros, compared with 290 million euros in 2013. The main focus of these investments in the Americas included the expansion of the engineering location in Plymouth, Michigan (USA), and of the manufacturing sites in Toluca and Juárez, Mexico. Moreover, we began producing the latest generation of ABS and ESP® systems at our plant in Aguascalientes, Mexico, in 2014, and expanded our capacity accordingly. We also opened our first center for software development and engineering services in the Americas. Located in Guadalajara, Mexico's second largest city, we are investing around 5 million dollars in the first phase. The development center will offer cross-divisional programming and calibration services, mainly for the automotive industry and other Bosch locations in North and South America.

Broken down by business sector, we invested 2.2 billion euros in Mobility Solutions, as in the previous year. In Industrial Technology, we invested some 170 million euros, after 165 million euros the previous year. We invested approximately 130 million euros in the Consumer Goods business sector, compared with 120 million the previous year, and in Energy and Building Technology we invested 70 million euros, following 80 million the previous year.

Liquidity

Strong financial position and healthy liquidity situation
The Bosch Group has a strong financial position. In 2014, cash flow was 4.9 billion euros or 9.9 percent of sales, against comparative prior-year figures of 4 billion euros or 8.6 percent of sales. The increase is primarily due to the significant improvement in profit before tax.

Liquidity at year-end as per the consolidated statement of cash flows (cash and cash equivalents) stood at 5.5 billion euros, compared to 3.8 billion euros the previous year. In addition, the available financing under our euro medium-term note and

T.02

Bosch Group, statement of cash flows
Figures in millions of euros

	2014	2013
Cash flow	**4,866**	**3,956**
as a percentage of sales	**9.9**	**8.6**
Liquidity at the beginning of the year (Jan. 1)	3,799	3,120
Cash flows from operating activities	+3,835	+4,276
Cash outflows from investing activities	–2,772	–3,872
Cash flows from financing activities	+470	+302
Other activities	+181	–27
Liquidity at the end of the year (Dec. 31)	**5,513**	**3,799**

commercial paper programs totaled 4.25 billion euros and 2 billion U.S. dollars.

Cash inflows from operating activities are a good 0.4 billion euros lower than in the previous year. This was due to lower increases in provisions and a year-on-year fall in liabilities. Cash outflows from investing activities were 1.1 billion euros lower than in the previous year. This was especially due to the reduced use of securities as a capital investment. The cash inflow from financing activities was 0.2 billion euros higher than in the previous year. A key factor was the higher net cash inflow from financial liabilities.

The Bosch Group has a central financial and currency management system. This is designed to control payment flows to optimum effect and to limit the risks of currency exposures at the Bosch Group level. Central financial management also manages our borrowings and investments. Our investment strategy is therefore aimed at broad diversification of shares and interest-bearing securities. Standard & Poor's reaffirmed Robert Bosch GmbH's long-term rating of AA– (with a "stable" outlook).

Report on post-balance sheet date events

Joint venture acquisitions change structure

The complete takeover of the two previous fifty-fifty joint ventures ZF Lenksysteme and BSH Bosch und Siemens Hausgeräte GmbH had a significant impact on the group's figures. As joint ventures, they were recognized only with their pro-rata equity capital in the statement of financial position and with their pro-rata after-tax income in the EBIT of the respective business sectors and the consolidated financial statements.

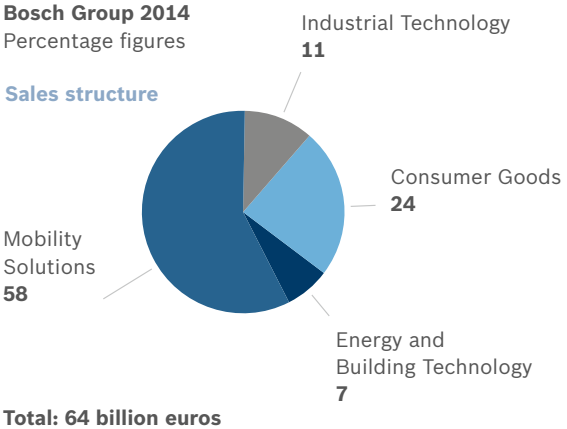
If their sales figures are included completely in the 2014 financial statements, the Bosch Group's sales figure, on a like-for like basis (also excluding discontinued operations in crystalline photovoltaics), is just under 7 percent higher than in 2013, at some 64 billion euros. The sales of the Mobility Solutions business sector increase by roughly 9 percent to some 37 billion euros. In view of the good sales performance of BSH, the sales of the Consumer Goods business sector rise by some 7 percent, reaching approximately 15.5 billion euros. Full consolidation considerably alters the relative shares of sales among the business sectors. The boost to the Consumer Goods business sector improves the balance between Mobility Solutions and the other three business sectors. If the joint ventures' associates are fully included, headcount increases by around 68,000 to approximately 357,800. Here too, the share of the Consumer Goods business sector increases significantly.

Still applying this premise, the Bosch Group's operating EBIT comes to 3.7 billion euros, with a margin of just under 6 percent. EBIT is roughly 0.5 billion euros higher than the comparative value for 2013, and margin nearly half a percentage point higher. This does not take account of the effects on earnings of the forthcoming revaluation of the at-equity shares of the two joint ventures due to the takeovers, as these do not have to be disclosed until 2015. For the Mobility Solutions business sector, this would result in EBIT of 2.6 billion euros and a margin of some 7 percent, and for Consumer Goods roughly one billion euros and just under 7 percent.

Apart from this, there were no events of material importance subsequent to the end of the reporting period that have not been covered in the business report section.

F.17

Pro forma statements[1]
Bosch Group 2014
Percentage figures

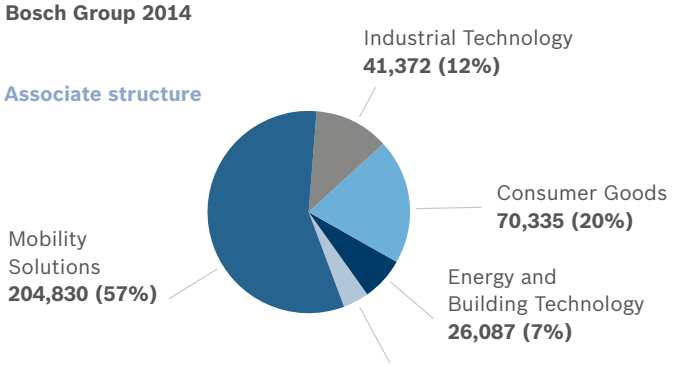


Total: 64 billion euros

[1] Complete pro forma inclusion of the former joint ventures BSH Bosch und Siemens Hausgeräte and ZF Lenksysteme

F.18

Pro forma statements[1]
Bosch Group 2014



Total: 357,790

[1] Complete pro forma inclusion of the former joint ventures BSH Bosch und Siemens Hausgeräte and ZF Lenksysteme
[2] Corporate functions and research

Outlook

Economic prospects remain subdued

For 2015, we expect a further year of subdued economic growth. We anticipate global economic growth of 2.7 percent. Growth will therefore remain similar to the 2014 level and well below the long-term trend of 3.3 percent. The advanced economies are likely to achieve growth of just under 2 percent, helped above all by robust growth in the U.S., where we expect GDP to increase by 2.5 percent. In the European Union, we are assuming that growth will remain sluggish in 2015 as well, reaching approximately 1.3 percent – a similar level to 2014. Stronger momentum is building in Spain and Portugal, but the French and Italian economies will likely do no more than stagnate in 2015.

The slow pace of reforms and continuing uncertainty about the future of monetary union will depress the investment climate, even in the economically stronger countries. In Germany, as a result, we expect economic output to rise by little more than 1 percent in 2015.

Globally speaking, the strongest momentum is likely to continue to come from the emerging markets, particularly in Asia. However, at just over 4 percent, their rate of growth will not accelerate significantly compared with 2014, and will remain well below the long-term average. As concerns the prospects for South America, we are very cautious. In addition, the outlook for the Russian economy has deteriorated significantly. In China, growth is expected to be slightly below the 2014 level.

The ongoing euro crisis, structural weaknesses in emerging markets, and the various geopolitical hotspots pose significant risks in 2015. These are counterbalanced by the positive effects of low oil prices, which provide economic stimulus for industrialized countries particularly. Nonetheless, given the many burdens and the geopolitical risks, we continue to take a cautious view of future economic developments.

In our core markets, our assumption is that global production figures for passenger cars and commercial vehicles will grow by some 3 percent, to approximately 93 million vehicles. In the heavy-truck segment, there are signs of slight growth. Once again, the biggest increase in overall production of passenger cars and commercial vehicles is expected to be in China.

In mechanical engineering, we see only a small chance of a sustainable recovery and expect somewhat reduced production growth of around 4 percent compared with 2014. Many customers are still operating at less than capacity, and there is continuing uncertainty about the future economic performance of some emerging markets and the euro zone. We are more optimistic about the prospects for the U.S., where a generally stable economic situation should encourage companies to invest.

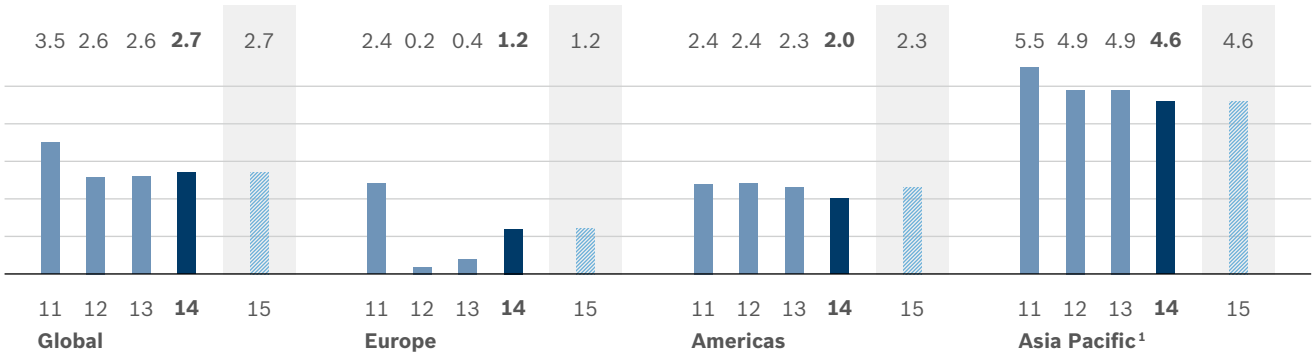
Private demand is expected to improve on a global level. Especially in the southern European markets which are important for our business, generally stronger growth is expected for 2015. Another supporting factor is the low oil price, which significantly increases purchasing power despite the weaker euro. We believe that the global construction business – another important market – will again see growth in 2015, at roughly the same level as in 2014. Impetus will come mainly from North America, but increasingly from the euro zone as well.

Sales growth and improved profitability

Against the backdrop of a still subdued economic environment,

F.19

Regional economic growth 2011–2015
Real GDP, percentage change on previous year
Percentage figures



[1] Including other countries

we anticipate sales growth for the Bosch Group in a range of 3 to 5 percent in the 2015 financial year. The forecast includes the fully acquired companies BSH Hausgeräte GmbH and Robert Bosch Automotive Steering GmbH as of the respective closing dates, and is calculated relative to a pro-forma base figure of around 64 billion euros in 2014. The Mobility Solutions business sector is expected to increase its sales by a significantly larger amount than the company as a whole, and to exceed the target range.

We also plan to at least slightly improve the operating EBIT of the Bosch Group on this basis. Moreover, the revaluation of the at-equity assets of BSH Hausgeräte and Robert Bosch Automotive Steering will lead to an extraordinary gain in EBIT; in subsequent years, however, the revaluations will lead to increased depreciation and amortization, with a negative impact on earnings. It is not yet possible to make a reliable forecast for operating value contribution based on the new scope of consolidation. The forecast improvements in EBIT relate especially to the Mobility Solutions business sector.

Report on opportunities and risks

Opportunities

Overall, we continue to see good growth opportunities for the Bosch Group. This is also reflected in our long-term target for annual sales growth in the consolidated group. For the consolidated group that has existed up to now, this target has averaged 8 percent. This assessment is essentially unchanged compared with the previous year. 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 “Opportunities, objectives, and strategy” section, which describes specific opportunities in more detail, as well as 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 managing any necessary measures.

Strategic risks relate mainly to market developments and competitors, innovations in technologies and business models, acquisitions, and the Bosch brand. Therefore we constantly monitor developments at our main competitors. 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 and the risks of the business sectors listed in this report, which could materially affect the net assets, financial position, and results of operations of the Bosch Group in 2015. 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, and competition. 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 16 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 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 changes in automobile manufacturers' terms of delivery that could potentially be at automotive suppliers' expense. In addition, a large number of particular risks exist, each with low economic impact and different probabilities of occurrence. These particular risks relate above all to achieving target market shares and delivery shares, the targets for market positions in emerging countries, price trends, market changes due to new business models, technologies, competitors, environmental aspects, and potential substitution of diesel with natural gas. We counter these risks through extensive planning and tracking of results in acquiring delivery contracts, deliberate expansion of our presence in emerging markets, 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 very high risks with at least medium probability of occurrence. These relate to the particular volatility of markets, increased price erosion, and growing competition partly as a result of market consolidation. 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 is not yet included, particular risks concern above all 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, particular mention should be made of risks of price erosion due to increasing competition from Asian suppliers and of sales risks due to the high pace of innovation in IP technologies. In addition, there are risks associated with a potential trend toward low-price products, declining purchasing power in western Europe, rising personnel costs in the services business, 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.

Risk management in group accounting

The internal control and risk management system for group accounting ensures proper accounting and financial reporting. The main components are a mandatory group-wide chart of accounts, mandatory standards for bookkeeping systems, group-wide accounting manuals, and software for recording the necessary data and for consolidation. Changes in legislation or accounting standards are examined with regard to their relevance to the consolidated financial statements and are included during regular updating in the accounting manuals, charts of accounts, and consolidation software. Group-wide compliance is ensured through controls and technical advice from the corporate accounting department.

The consolidated financial statements are prepared centrally on the basis of data reported by subsidiaries. The data are initially checked for plausibility by the corporate accounting department, with the data being reviewed from different regional and specialist perspectives. Consolidation then follows. The principle of dual control applies at every level. The quality of data recording and consolidation is ensured by means of authorization and access regulations. The system is supplemented by internal control measures which are implemented locally according to uniform group-wide standards, in which financially critical processes are spot-checked for accuracy.

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. 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, with our broad-based and well trained IT-security and data-protection organization. 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 fiscal 2015. 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 and monitoring compliance with this principle is the task of our global compliance organization. Worldwide classroom-based programs, web-based training courses, and a great number of publications are used to ensure that everyone in the group is aware of the need to comply with existing laws, rules, and regulations.

In 2014, the effectiveness of our existing compliance organization was the subject of a thorough review and confirmed by an external audit. Independently of this, we decided on a number of measures to strengthen our compliance organization and further develop the compliance management system. We began carrying these measures out in 2014. They include more intensive exchange about compliance issues between executives and their associates. Our aim is to move way from a largely rules-based form of compliance to one primarily based on values.

In addition, we set up a dedicated corporate department for compliance management at the start of 2015. It reports to the chief compliance officer, who coordinates the compliance organization and reports to the board of management direct or, if necessary, to the chairman of the supervisory board. Professionally, the compliance officers in the regions and divisions are assigned to the chief compliance officer. In addition, we have developed a concept for regularly analyzing risk in the divisions. This will be applied for the first time in 2015. For each division, we ascertain risk indicators, on the basis of which risk scenarios are drawn up, which are then tested through structured interviews with executives from the division under review. In a final step, 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. As early as 2013, we set aside 150 million euros as a provision for the associated risks. The company continues to cooperate fully with the authorities in their investigations into these allegations. Our negotiations with the competent U.S. antitrust authority (Department of Justice) about a settlement of the investigations against Bosch have reached an advanced stage. With respect to the ongoing investigations by the Brazilian antitrust authority relating to spark plugs, the existing leniency agreement leads Bosch to believe that it will not have to pay a fine. In connection with the anticompetitive behavior being investigated, we are preparing ourselves for burdens resulting from civil-law claims for damages. At the present time, however, these cannot be quantified.

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 regarded as impeccable. 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.

Consolidated financial statements of the Bosch Group

Income statement

for the period from January 1 to December 31, 2014

T.01

Figures in millions of euros	Note	2014	2013
Sales revenue	1)	**48,951**	**46,068**
Cost of sales		–31,963	–30,460
Gross profit		**16,988**	**15,608**
Distribution and administrative cost	2)	–9,469	–8,562
Research and development cost	3)	–4,959	–4,543
Other operating income	4)	1,126	1,480
Other operating expenses	5)	–912	–1,394
Profit from entities consolidated using the equity method		256	162
EBIT		**3,030**	**2,751**
Financial income	6)	2,114	1,535
Financial expenses	6)	–1,769	–1,459
Profit before tax		**3,375**	**2,827**
Income taxes	7)	–714	–540
Profit after tax from continuing operations		**2,661**	**2,287**
Profit after tax from discontinued operations		–24	–1,036
Profit after tax		**2,637**	**1,251**
of which attributable to non-controlling interests	8)	227	155
of which attributable to parent company		2,410	1,096

Statement of comprehensive income

for the period from January 1 to December 31, 2014

T.02

Figures in millions of euros

	2014	2013
Profit after tax	**2,637**	**1,251**
Change from marketable financial instruments		
recognized in other comprehensive income	420	249
of which attributable to non-controlling interests	11	2
transferred to profit or loss	–209	–240
of which attributable to non-controlling interests	–2	–3
Adjustment item from currency translation of entities outside the euro zone	1,149	–972
of which attributable to non-controlling interests	125	–61
Items that will be reclassified to profit or loss	**1,360**	**–963**
of which entities consolidated using the equity method	110	–139
Remeasurement of pension provisions	–1,837	202
of which attributable to non-controlling interests	–1	2
Items that will not be reclassified to profit or loss	**–1,837**	**202**
of which entities consolidated using the equity method	–178	6
Other comprehensive income	**–477**	**–761**
Comprehensive income	**2,160**	**490**
of which attributable to non-controlling interests	360	95
of which attributable to parent company	1,800	395

Statement of financial position

for the year ended December 31, 2014

T.03

Assets
Figures in millions of euros

	Note	12/31/2014	12/31/2013
Current assets			
Cash and cash equivalents	10)	5,513	3,799
Securities	11)	1,076	593
Trade receivables	12)	8,785	7,878
Income tax receivables		469	290
Other assets	13)	2,271	1,921
Inventories	14)	7,194	6,519
		25,308	**21,000**
Non-current assets			
Financial assets	15)	10,552	10,461
Income tax receivables		104	135
Property, plant, and equipment	16)	13,251	12,244
Intangible assets	17)	7,338	7,178
Investments measured at equity		1,666	1,669
Deferred taxes	7)	3,705	3,038
		36,616	**34,725**
Assets held for sale			**0**
Total assets		**61,924**	**55,725**

Equity and liabilities
Figures in millions of euros

	Note	12/31/2014	12/31/2013
Current liabilities			
Financial liabilities	18)	185	538
Trade payables	19)	3,599	3,235
Income tax liabilities		254	186
Other liabilities	20)	4,615	4,305
Income tax provisions		184	505
Other provisions	20)	3,239	2,826
		12,076	**11,595**
Non-current liabilities			
Financial liabilities	18)	5,028	4,003
Other liabilities	20)	162	186
Pension provisions	21)	9,935	7,613
Income tax provisions		611	275
Other provisions	20)	3,425	3,325
Deferred taxes	7)	1,146	1,042
		20,307	**16,444**
Liabilities held for sale			**0**
Equity	22)		
Issued capital		1,200	1,200
Capital reserve		4,557	4,557
Retained earnings		22,460	20,921
Unappropriated earnings		102	88
Non-controlling interests		1,222	920
		29,541	**27,686**
Total equity and liabilities		**61,924**	**55,725**

Statement of changes in equity

T.04

Figures in millions of euros

			Retained earnings			
	Issued capital	Capital reserve	Earned profit	Treasury stock	Currency translation	
1/1/2013	**1,200**	**4,557**	**22,052**	**–62**	**305**	
Comprehensive income					–911	
Dividends						
Transfer to retained earnings			1,008			
Other changes						
12/31/2013	**1,200**	**4,557**	**23,060**	**–62**	**–606**	
Comprehensive income					1,024	
Dividends						
Transfer to retained earnings			2,308			
Other changes						
12/31/2014	**1,200**	**4,557**	**25,368**	**–62**	**418**	

Other comprehensive income						
Securities	Other	Total	Unappropriated earnings	Equity parent company	Equity non-controlling interests	Group equity
517	**–2,205**	**–1,383**	**88**	**26,452**	**448**	**26,900**
10	200	–701	1,096	395	95	490
			–88	–88	–81	–169
			–1,008			
	7	7		7	458	465
527	**–1,998**	**–2,077**	**88**	**26,766**	**920**	**27,686**
202	–1,836	–610	2,410	1,800	360	2,160
			–88	–88	–88	–176
			–2,308			
	–159	–159		–159	30	–129
729	**–3,993**	**–2,846**	**102**	**28,319**	**1,222**	**29,541**

Statement of cash flows

T.05

Figures in millions of euros	Note 23	2014	2013
EBIT[2]		3,006	1,478
Depreciation and amortization[1]		2,341	2,552
Increase in pension provisions		24	82
Increase in non-current provisions		45	602
Gains on disposal of non-current assets		–86	–64
Losses on disposal of non-current assets		104	105
Remeasurement of investments			–437
Gains from investments measured at equity		–256	–162
Financial income, cash effective		828	657
Financial expenses, cash effective		–980	–575
Interest and dividends received		679	507
Interest paid		–209	–207
Paid income taxes		–630	–582
Cash flow		**4,866**	**3,956**
Increase in inventories		–385	–312
Increase in receivables and other assets		–474	–369
Change in liabilities		–457	343
Increase in current provisions		285	658
Cash flows from operating activities (A)		**3,835**	**4,276**
Acquisition of subsidiaries and other business units		–27	–15
Disposal of subsidiaries and other operating units		–18	1
Additions to non-current assets		–3,140	–3,138
Proceeds from disposal of non-current assets		268	301
Purchase of securities		–6,516	–7,249
Disposal of securities		6,661	6,228
Cash flows from investing activities (B)		**–2,772**	**–3,872**
Borrowing		1,159	1,789
Repayment of financial liabilities		–513	–1,318
Dividends paid		–176	–169
Cash flows from financing activities (C)		**470**	**302**
Increase in liquidity (A+B+C)		**1,533**	**706**
Liquidity at the beginning of the period (January 1)		**3,799**	**3,120**
Exchange-rate related change in liquidity		123	–74
Increase in liquidity due to changes in the consolidated group		58	47
Liquidity at the end of the period (December 31)		**5,513**	**3,799**

[1] After offsetting reversals of impairments of EUR 28 million (previous year: EUR 7 million)
[2] EBIT including discontinued operations

Notes to the financial statements

Principles and methods

General explanations

The consolidated financial statements of the Bosch Group for the year ended December 31, 2014, have been prepared according to the standards issued by the *International Accounting Standards Board* (IASB), London. The *International Financial Reporting Standards* (IFRSs) and the *Interpretations of the IFRS Interpretations Committee* (IFRS IC) applicable in the EU at the end of the reporting period have been applied. The previous-year figures have been determined using the same principles.

The consolidated financial statements are in line with the provisions of Sec. 315a HGB ["Handelsgesetzbuch": German Commercial Code] and Regulation (EC) No 1606/2002 of the European Parliament and of the Council of July 19, 2002, on the application of international accounting standards.

On December 17, 2014, the EU endorsed the Annual Improvements to IFRSs, 2010–2012 Cycle. This contains amendments to IFRS 2 *Share-based Payment*, IFRS 3 *Business Combinations*, IFRS 8 *Operating Segments*, IAS 16 *Property, Plant, and Equipment*, IAS 24 *Related Party Disclosures*, IAS 37 *Provisions, Contingent Liabilities, and Contingent Assets*, IAS 38 *Intangible Assets,* and IAS 39 *Financial Instruments: Recognition and Measurement.* Likewise on December 17, 2014, the EU endorsed amendments to IAS 19 *Employee Benefits*. The aforementioned amendments are mandatory for fiscal years beginning on or after February 1, 2015. On December 18, 2014, the EU endorsed the Annual Improvements to IFRSs, 2011–2013 Cycle. This contains amendments to IFRS 3 *Business Combinations*, IFRS 13 *Fair Value Measurement,* and IAS 40 *Investment Property.* The aforementioned amendments are mandatory for fiscal years beginning on or after January 1, 2015. On June 13, 2014, the EU endorsed IFRIC Interpretation 21 *Levies*, the requirements of which are mandatory for fiscal years beginning on or after June 17, 2014. None of the aforementioned requirements will be early-adopted by the Bosch Group. First-time application of the amended standards is not expected to have any material effects on the consolidated financial statements of the Bosch Group. The effects on the Bosch Group of IFRS 9 *Financial Instruments* and IFRS 15 *Revenue Recognition,* which are still pending endorsement by the EU, are currently being reviewed.

To enhance the clarity and transparency of the consolidated financial statements, individual items of the consolidated income statement and the consolidated statement of financial position have been combined. These items are explained separately in the notes to the consolidated financial statements. The income statement has been prepared using the function of expense method.

The preparation of consolidated financial statements in accordance with IFRSs requires that assumptions be made for some items. These assumptions have an effect on the amount of the assets and liabilities, income and expenses, and contingent liabilities disclosed in the consolidated statement of financial position.

The group currency is the euro (EUR). Unless otherwise stated, all figures are in millions of euros (EUR million).

The consolidated financial statements prepared as of December 31, 2014, were authorized for disclosure by management on March 10, 2015. The consolidated financial statements and group management report will be filed with the Federal Gazette [*Bundesanzeiger*] and published there.

Basis of consolidation

Besides Robert Bosch GmbH, the consolidated financial statements include all subsidiaries for which Robert Bosch GmbH fulfills the criteria pursuant to IFRS 10 *Consolidated Financial Statements*. These entities are included in the consolidated financial statements from the date on which the Bosch Group obtains control. Conversely, subsidiaries are no longer fully consolidated when control of the entity is lost.

The capital of the companies consolidated in the fiscal year for the first time is consolidated pursuant to IFRS 3 *Business Combinations* using the acquisition method of accounting. At the time of combination, the purchase cost of the shares acquired is offset against pro-rata revalued equity. Assets, liabilities, and contingent liabilities are carried at fair value. Remaining debit differences are accounted for as goodwill. Any credit differences are recognized with effect on income. Any difference resulting from the purchase of additional non-controlling interests is offset against equity.

Joint ventures as defined by IFRS 11 *Joint Arrangements* are accounted for using the equity method.

Pursuant to IAS 28 *Investments in Associates and Joint Ventures*, investments are included in consolidation using the equity method if significant influence can be exercised. At present, no associates have been accounted for using the equity method.

Within the consolidated group, intercompany profits and losses, sales, expenses, and other income, as well as all receivables and liabilities or provisions are eliminated. In the case of consolidation measures with an effect on income, the effects for income tax purposes are considered and deferred taxes recognized.

Currency translation

In the separate financial statements of the group companies, all receivables and liabilities denominated in currencies other than the euro are measured at the closing rate at the end of the reporting period, regardless of whether they are hedged or not. Exchange-rate gains and losses from revaluations are recorded in profit or loss.

The financial statements of the consolidated companies outside the euro zone are translated into euros in accordance with IAS 21 *The Effects of Changes in Foreign Exchange Rates*. Assets and liabilities are translated at the closing rate at the end of the reporting period, while equity is translated at historical rates. The line items of the income statement are translated into euros at the annual average exchange rates. Any resulting exchange-rate differences are recorded directly in equity until the disposal of the subsidiaries, and disclosed as a separate position in equity.

For the most important non-euro currencies of the Bosch Group, the following exchange rates apply:

T.06

		Closing rate		Average rate	
	1 EUR =	12/31/2014	12/31/2013	2014	2013
Australia	AUD	1.48	1.54	1.47	1.38
Brazil	BRL	3.22	3.26	3.12	2.87
China	CNY	7.46	8.42	8.17	8.22
Czech Republic	CZK	27.73	27.43	27.53	25.97
Hungary	HUF	314.89	296.91	308.65	296.97
India	INR	76.72	85.37	81.04	77.93
Japan	JPY	145.23	144.72	140.31	129.66
Korea	KRW	1,324.80	1,450.93	1,398.14	1,455.91
Poland	PLN	4.27	4.15	4.18	4.20
Russian Federation	RUB	68.34	44.97	50.82	42.29
Switzerland	CHF	1.20	1.23	1.21	1.23
Turkey	TRY	2.83	2.96	2.91	2.53
United Kingdom	GBP	0.78	0.83	0.81	0.85
USA	USD	1.21	1.38	1.33	1.33

Accounting policies

Cash and cash equivalents consist of cash, reserve bank deposits, and bank balances with an original maturity of less than 90 days. Measurement is at amortized cost.

Trade receivables, income tax receivables, other assets (current), and other financial assets (non-current) are measured at amortized cost. All discernible specific risks and general credit risks are accounted for by appropriate valuation allowances. According to internal group guidelines, the carrying amounts of receivables are generally corrected via a valuation allowance account. For finance leases under which the Bosch Group is the lessor, a receivable is disclosed equivalent to the net investment value. Leases under which substantially all risks and rewards in connection with ownership have been transferred to the lessee are classified as finance leases. Derivative financial instruments are measured at fair value.

Inventories include raw materials, consumables, and supplies; work in process, finished goods, and merchandise; and prepayments. Inventories are stated at purchase cost or cost of conversion using the average cost method. In addition to direct cost, cost of conversion includes an allocable portion of necessary materials and production overheads as well as production-related depreciation that can be directly allocated to the production process. Appropriate allowance is made for risks associated with holding and selling inventories due to obsolescence. Inventories are devalued further when the net selling price of the inventories has fallen below cost.

Property, plant, and equipment are measured at cost of purchase or production cost less depreciation and, if necessary, impairment losses. Depreciation is charged on a straight-line basis over the economic useful life.

Depreciation is based on the following ranges of useful lives:

T.07

	Useful life
Buildings	10 – 50 years
Plant and equipment	8 – 11 years
Other equipment, fixtures, and furniture	3 – 25 years

In accordance with IAS 36 *Impairment of Assets*, impairment losses are recorded on property, plant, and equipment if the recoverable amount has fallen below the carrying amount. Impairment losses are reversed if the reasons for the impairment loss from previous years no longer apply. Repair costs are recognized in the income statement.

In accordance with IAS 17 *Leases*, leased items of property, plant, and equipment which, from a substance-over-form perspective, are deemed to be purchases of assets with long-term financing (finance leases) are recognized at the time of addition at the lower of the fair value of the leased assets or present value of the minimum lease payments. Depreciation is charged over the economic useful life. If it is uncertain whether title to the leased asset will be transferred, the asset is depreciated over the term of the lease agreement (if shorter than the economic useful life). The finance expense from these leases is disclosed under other financial expenses.

Investment property is measured at depreciated cost in accordance with IAS 40 *Investment Property*.

Government grants are only recognized pursuant to IAS 20 *Accounting for Government Grants and Disclosure of Government Assistance* if it is sufficiently certain that the assistance will be granted and the conditions attached to the assistance are satisfied. Grants related to assets are deducted in order to calculate the carrying amount of the asset. Grants related to income are recognized in the income statement of the period in which the expenses are incurred which the grants are intended to cover.

Purchased and internally generated intangible assets are capitalized pursuant to IAS 38 *Intangible Assets* if a future economic benefit will flow to the entity from the use of the asset and the cost of the asset can be reliably determined. These assets are generally carried at cost and amortized using the straight-line method over their economic useful life. As a rule, the useful life is four years. Intangible assets accounted for in the course of business combinations have a useful life of up to 20 years.

Borrowing costs incurred in connection with the acquisition, construction, or production of qualifying assets are included in the cost of this asset for the period of time until the asset is commissioned and subsequently written off with the asset concerned. Other borrowing costs are recorded as expenses.

Goodwill from business combinations represents the difference between the purchase price on the one hand and the pro-rata fair value of the equity at the time of acquisition on the other. Goodwill is allocated to the cash-generating units and tested annually for impairment. If the recoverable amount of the cash-generating unit does not cover the carrying amount of the net asset, impairment losses are charged in accordance with the requirements of IAS 36.

Pursuant to IFRS 1 *First-time Adoption of International Financial Reporting Standards*, goodwill existing as of January 1, 2004 (date of transition), was transferred at the carrying amount in accordance with the provisions of the German Commercial Code. Goodwill is also tested for impairment pursuant to the provisions of IAS 36.

Intangible assets with an indefinite useful life are tested annually for impairment. Intangible assets subject to wear and tear are only tested for impairment if there is any indication that they may be impaired. Impairment losses are recorded in accordance with IAS 36 if the recoverable amount of the asset concerned has fallen below the carrying amount. Impairment losses are reversed if the reasons for the impairment loss from previous years no longer apply.

Shares in jointly controlled entities are included in the consolidated financial statements using the equity method. The carrying amount of these shares is subsequently measured in accordance with the change in equity of the jointly controlled entity attributable to the Bosch Group.

Financial instruments

A financial instrument is any contract that gives rise to a financial asset of one entity on the one hand and to a financial liability or equity instrument of a second entity on the other. As a rule, financial instruments are determined as of the settlement date. Financial instruments are accounted for at amortized cost or fair value. In the case of a financial asset or financial liability not accounted for at fair value through profit or loss, transaction costs that are directly attributable to the acquisition or issue of the financial asset or financial liability are taken into account.

When determining the fair value, the input factors of the measurement methods pursuant to IFRS 13 *Fair Value Measurement* are categorized as follows:

- Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities that the accounting entity can access at the measurement date
- Level 2: Inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly or indirectly
- Level 3: Inputs that are not based on observable market data

The fair value of current financial assets and liabilities is assumed to correspond to the carrying amount.

In accordance with IAS 39 *Financial Instruments: Recognition and Measurement*, the following categories of financial instruments are used in the Bosch Group:

- Held-to-maturity investments
- Loans and receivables
- Financial liabilities measured at amortized cost
- Financial assets and liabilities held for trading
- Available-for-sale financial assets

The fair-value option pursuant to IAS 39 is not exercised.

Financial investments held to maturity, loans and receivables, and current and non-current financial liabilities are measured at amortized cost using the effective interest method. These are mainly loans, trade receivables, and current and non-current other financial assets and liabilities. Impairments of loans and receivables to allow for anticipated credit risks based on past experience are recognized in the form of specific and general doubtful debt allowances. When determining valuation allowances for the general credit risk, financial assets that could potentially be impaired are grouped together by similar credit risk characteristics, collectively tested for impairment, and, if necessary, written down.

Financial assets and liabilities held for trading are measured at fair value. Changes in value are recognized in profit or loss. These are derivative financial instruments which are mainly used to limit currency, interest, and commodity risks in accordance with internal risk management. Hedge accounting is not used in the Bosch Group.

Available-for-sale financial assets are those non-derivative financial assets that cannot be allocated to any of the three preceding categories. They are carried at fair value. Unrealized gains and losses from changes in market value are disclosed in equity, net of deferred taxes, until they are realized. Interest received is generally recognized through profit or loss using the effective interest method. Dividends are recognized through profit or loss as soon as payment is legally enforceable. If impairment losses are necessary, the accumulated net loss is eliminated from equity and disclosed in profit or loss. If an impairment loss recorded on equity instruments is reversed in accordance with IAS 39, this is offset directly against equity. Reversals of impairment losses on debt instruments may not exceed the amount for which the impairment loss was recorded. The amount of the reversal is recognized in profit or loss.

If the fair value of available-for-sale financial assets cannot be reliably determined, they are accounted for at acquisition cost. These are investments for which there is no active market. Necessary impairment losses are recognized in profit or loss and are not reversed.

As of every reporting date, the carrying amounts of the financial assets which are not measured at fair value through profit or loss are examined for substantial objective indications that an asset may be impaired. Such indications may, for instance, be serious financial difficulties suffered by the debtor, the high probability that insolvency proceedings will be instituted against the debtor, the loss of an active market for the financial asset, a permanent drop in the fair value of the financial asset below amortized cost, or significant changes in the technological, economic, legal, or market environment of the issuer. A possible impairment loss is given if the fair value of the asset is lower than the carrying amount. The fair value of loans and receivables is the present value of the estimated future cash flows discounted using the original effective interest rate.

In accordance with IAS 12 *Income Taxes,* **deferred tax assets and liabilities** are recorded for temporary differences between the tax carrying amounts and the carrying amounts in the consolidated statement of financial position unless they arise from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affect neither the profit before tax nor the taxable profit. This also applies to unused tax losses and tax credits if there is assurance beyond reasonable doubt that future taxable profit will be available against which they can be utilized. The deferred tax item equals the estimated tax burden/relief in later periods. The tax rate applicable at the time of realization is taken as a basis. Tax implications from profit distributions are generally not considered until the resolution for the appropriation of profits has been adopted. If it is uncertain whether recognized deferred taxes can be realized, they are adjusted accordingly.

Assets and liabilities held for sale are classified as held for sale if most of their carrying amount is redeemed by a sale and the sale is highly likely to be effected. They are valued at the lower of carrying amount or fair value, less selling cost.

Liabilities are measured at amortized cost. Liabilities from finance leases are disclosed under other liabilities, at the present value of the future lease payments. The effective interest method is applied when measuring bonds.

Pursuant to IAS 19 *Employee Benefits*, **pension provisions** are recognized using the projected unit credit method, taking estimated future increases in pensions and salaries into account, among other things.

Tax provisions pertain to obligations relating to income tax and other taxes. Deferred taxes are disclosed in separate positions of the statement of financial position.

Pursuant to IAS 37 *Provisions, Contingent Liabilities, and Contingent Assets*, **other provisions** are recognized if there is a current obligation from a past event which will probably lead to an outflow of resources embodying economic benefits in the future. In addition, it must be possible to reliably estimate the amount of this outflow. Other provisions are measured at full cost. Provisions due in more than one year are stated at their discounted settlement amount.

Revenue from the supply of products and goods or from the provision of services is recognized when title and risk is transferred to the purchaser, less sales deductions. Interest and lease income is recorded according to the contractual agreement and, where appropriate, accrued pro rata temporis. In the case of finance leases, the payments are divided up using actuarial methods.

Cost of sales contains the cost of internally manufactured goods and the cost price of resold merchandise. The production cost of internally manufactured goods contains materials and production cost that can be allocated directly, the allocable parts of indirect overheads, including the depreciation of production equipment and the amortization of other intangible assets, and the devaluation of inventories.

Development cost that cannot be recognized is released to profit or loss in the period incurred.

Consolidation

Consolidated group

Robert Bosch GmbH is headquartered in Stuttgart, Germany. The shareholders of Robert Bosch GmbH are Robert Bosch Stiftung GmbH, Stuttgart (92.0 percent of the shares), the Bosch family (7.4 percent of the shares), and Robert Bosch Industrietreuhand KG, Stuttgart, which performs the entrepreneurial ownership functions. Robert Bosch GmbH holds treasury stock equivalent to 0.6 percent of capital.

Besides Robert Bosch GmbH, the consolidated group comprises a further 340 (previous year: 360) fully consolidated companies. The group developed as follows:

T.08

	Germany	Outside Germany	Total
Included in consolidation at December 31, 2012	**62**	**300**	**362**
Additions/formations in fiscal year 2013	2	12	14
Disposals/mergers in fiscal year 2013	1	14	15
Included in consolidation at December 31, 2013	**63**	**298**	**361**
Additions/formations in fiscal year 2014	7	11	18
Disposals/mergers in fiscal year 2014	4	34	38
Included in consolidation at December 31, 2014	**66**	**275**	**341**

The consolidated group includes 13 special funds, as well as other investments.

In the fiscal year 2014, the following companies were included in the consolidation for the first time:

- Bosch Connected Devices and Solutions GmbH, Reutlingen, Germany,
- Bosch Energy and Building Solutions GmbH, Ditzingen, Germany,
- Bosch Financial Software GmbH, Immenstaad, Germany,
- Bosch Technology Licensing Administration GmbH, Gerlingen, Germany,
- Bosch Thermotechnik Vermögensverwaltung 1 GmbH, Wetzlar, Germany,
- Robert Bosch Immobilienverwaltungs GmbH & Co. KG, Stuttgart, Germany,
- Bosch (Ningbo) e-scooter Motor Co., Ltd., Ningbo, China,
- Bosch Automotive Components (Changchun) Co., Ltd., Changchun, China,
- Bosch Automotive Diagnostics Equipment (Shenzhen) Ltd., Shenzhen, China,
- Bosch Automotive Products (Nanjing) Co., Ltd., Nanjing, China,
- Bosch Car Multimedia (Wuhu) Co., Ltd., Wuhu, China,
- Bosch Laser Equipment (Dongguan) Limited, Dongguan, China,
- P.T. Robert Bosch, Jakarta, Indonesia,
- ARESI S.p.A., Brembate, Italy,
- Bosch Service Solutions, Inc. (formerly Robert Bosch Communication Center, Inc.), Manila, Philippines,
- Robert Bosch DOO, Belgrade, Serbia,
- Robert Bosch Automotive Technologies (Thailand) Co., Ltd., Rayong, Thailand.

The first-time consolidation of the companies listed above resulted in a negative difference of EUR 115 million, which is disclosed under other changes in equity.

Due to changes to the consolidated group, sales revenue decreased by EUR 170 million, while total assets increased by EUR 56 million.

Condensed financial information on fully consolidated subsidiaries with material non-controlling interests

T.09

Currency figures in millions of euros

	Bosch Automotive Diesel Systems Co., Ltd., Wuxi, China		United Automotive Electronic Systems Co., Ltd., Shanghai, China		Bosch Ltd., Bangalore, India	
	2014	2013	2014	2013	2014	2013
Current assets	725	373	966	714	822	609
Non-current assets	331	292	1,308	1,166	686	564
Current liabilities	276	194	807	632	344	259
Non-current liabilities			154	150	38	33
Sales revenue	1,228	680	1,663	1,343	1,182	1,108
Profit after tax	218	114	224	176	144	118
Comprehensive income	301	106	372	178	271	–19
Cash flows from operating activities	70	56	251	255	148	208
Cash flows from investing activities	–48	–17	–91	–63	–107	–160
Cash flows from financing activities	–17	–36	–136	–127	–25	–28
Share of capital attributable to non-controlling interests	34.0%	34.0%	49.0%	49.0%	28.8%	28.8%
Profit/loss attributable to non-controlling interests	74	39	110	86	41	34
Equity attributable to non-controlling interests	265	160	549	454	325	254
Dividends paid to non-controlling interests			73	67	7	8

The condensed financial information of the respective entities corresponds to the figures before consolidation entries.

Joint ventures

The following entities are joint ventures and were accounted for using the equity method in accordance with IFRS 11:

- Bosch Mahle Turbo Systems GmbH & Co. KG, Stuttgart, Germany (50%),
- BSH Bosch und Siemens Hausgeräte GmbH, Munich, Germany (50%),
- EM-motive GmbH, Hildesheim, Germany (50%),
- ZF Lenksysteme GmbH, Schwäbisch Gmünd, Germany (50%),
- Hytec Holdings (Pty.) Ltd., Johannesburg, South Africa (50%),
- Associated Fuel Pump Systems Corporation, Anderson, SC, USA (50%).

The share of capital corresponds to the share of voting rights.

In the fiscal year, 50 percent of the shares in Hytec Holdings (Pty.) Ltd., Johannesburg, South Africa, were acquired; the purchase price was paid by transfer of cash and cash equivalents.

Condensed financial information on material joint ventures

T.10

Figures in millions of euros

	BSH Bosch und Siemens Hausgeräte GmbH, Munich, Germany		ZF Lenksysteme GmbH, Schwäbisch Gmünd, Germany	
	2014	2013	2014	2013
Sales revenue	11,389	10,508	4,388	4,114
Depreciation and amortization	–330	–335	–244	–205
EBIT	705	512	249	167
Interest income	45	34	5	5
Interest expenses	–129	–104	–7	–7
Profit before tax	637	439	248	166
Income taxes	–190	–130	–64	–45
Profit after tax	447	309	184	121
Other comprehensive income	–41	–159	–96	–34
Comprehensive income	406	150	88	87
Current assets	5,454	5,342	1,474	1,308
of which cash and cash equivalents	493	985	265	208
Non-current assets	3,692	3,400	1,519	1,200
Current liabilities	3,591	3,243	1,055	890
of which financial liabilities	300	246	49	4
Non-current liabilities	3,168	3,002	1,072	836
of which financial liabilities	1,151	1,283	105	150
Equity	2,387	2,497	866	782
of which non-controlling interests	3	6	172	123
Pro-rata equity attributable to the group	1,192	1,245	347	330
Dividends received	250	117		20

The carrying amount of investments measured using the equity method in the consolidated financial statements of the Bosch Group corresponds to the proportionate share in equity.

The condensed financial information corresponds to the figures from the IFRS financial statements of the aforementioned joint ventures.

In 1967, the joint venture BSH Bosch und Siemens Hausgeräte GmbH was established together with Siemens AG, Munich, Germany. The company is one of the world's leading players in the household-appliances industry. Effective January 5, 2015, the Bosch Group acquired all shares in BSH Bosch und Siemens Hausgeräte GmbH. The fifty-fifty joint venture ZF Lenksysteme GmbH controlled together with ZF Friedrichshafen AG, Friedrichshafen, Germany, was established in 1999. The company develops, manufactures, and sells steering systems for passenger cars and commercial vehicles worldwide. Effective January 30, 2015, the Bosch Group acquired all shares in ZF Lenksysteme GmbH. Both companies are of strategic importance to the Bosch Group.

Condensed financial information on individually immaterial joint ventures

T.11

Figures in millions of euros	2014	2013
Carrying amount of the investments	127	94
Group share of profit after tax	–33	–32
Group share of other comprehensive income of the period	1	–2
Group share of comprehensive income	–32	–34

Obligations to joint ventures come to EUR 1 million as of the reporting date. There were no corresponding obligations in the previous year.

Business combinations

In September 2014, it was agreed that Robert Bosch GmbH would take over Siemens AG's 50 percent share in the fifty-fifty joint venture BSH Bosch und Siemens Hausgeräte GmbH, Munich, Germany. The transaction was completed on January 5, 2015, following approval by the antitrust authorities, at a purchase price of EUR 3,014 million. The company was renamed BSH Hausgeräte GmbH. The complete takeover serves to strengthen the Bosch Group's consumer goods business. A further objective is to build up the Bosch Group's activities in the area of connected buildings and appliances. The condensed financial information of BSH Bosch und Siemens Hausgeräte GmbH as of December 31, 2014, is presented in the table in the "Joint ventures" chapter. Following the acquisition in stages of shares, the interest already held by the Bosch Group, which had a carrying amount of EUR 1,192 million as of December 31, 2014, will be remeasured at fair value. This is expected to result in a gain of roughly EUR 1.6 billion in the fiscal year 2015. The value of the remeasured interest and the purchase price for the remaining interest will be subsequently compared with the acquisition-date equity of BSH Bosch und Siemens Hausgeräte GmbH. Any resulting difference will be allocated as part of the purchase price allocation to the identified assets and liabilities.

Likewise in September 2014, it was announced that Robert Bosch GmbH planned to increase its 50 percent interest in the joint venture ZF Lenksysteme GmbH, Schwäbisch Gmünd, Germany, to 100 percent. The transaction was completed on January 30, 2015, following approval by the antitrust authorities, at a purchase price of EUR 884 million. The company will be renamed Robert Bosch Automotive Steering GmbH. With the acquisition, the Bosch Group is strengthening its position in the field of electric steering, a key technology for automated driving, more efficient vehicles, and electric cars. The condensed financial information of ZF Lenksysteme GmbH as of December 31, 2014, is presented in the table in the "Joint ventures" section. Following the acquisition in stages of shares, the interest already held by the Bosch Group, which had a carrying amount of EUR 347 million as of December 31, 2014, will be remeasured at fair value. This is expected to result in a gain of roughly EUR 0.5 billion in the fiscal year 2015. The value of the remeasured interest and the purchase price for the remaining interest will be subsequently compared with the acquisition-date equity of ZF Lenksysteme GmbH. Any resulting difference will be allocated as part of the purchase price allocation to the identified assets and liabilities.

Due to the complexity of the acquired companies and the timing of the acquisitions, the purchase price allocations and the calculation of the remeasurement of the net assets in connection with the first-time full consolidation of BSH Bosch und Siemens Hausgeräte GmbH and ZF Lenksysteme GmbH have not yet been completed. Also pending completion is the preparation of opening statements of financial position as of the respective acquisition dates. Consequently, the reported disclosures should be considered provisional; no further disclosures are available at present. Both business combinations were financed by transferring cash and cash equivalents.

On January 6, 2015, 100 percent of the shares in Climatec, LLC, Phoenix, AZ, USA, were acquired. With the acquisition, the Bosch Group is expanding its services business in the North American market and strengthening its position as full-service provider of energy-efficiency, building-automation, and security solutions. The purchase price for the shares came to EUR 186 million; the business combination was financed by transferring cash and cash equivalents. Based on the provisional opening statement of financial position currently available, current assets of EUR 141 million, non-current assets of EUR 2 million, current liabilities of EUR 127 million, and non-current liabilities of EUR 1 million are being acquired or assumed. In the course of the provisional purchase price allocation, unrecognized intangible assets of EUR 98 million and goodwill of EUR 73 million were identified.

Discontinued operations

In March 2013, the management of the Bosch Group announced its decision to discontinue the manufacture of ingots, wafers, cells, and modules, and to exit from the crystalline photovoltaics business segment. Negotiations on the sale of a large portion of the activities of Bosch Solar Energy AG, Arnstadt, Germany, were completed in fall 2013. The transaction was executed on March 12, 2014. The production facilities and a large portion of the assets of Bosch Solar Energy AG were sold. At the beginning of 2014, aleo solar AG i. L. signed an agreement for the sale of its module activities at its Prenzlau (Germany) location. The factory in Prenzlau was closed at the end of March 2014, the sale of the significant portion of the operating activities was completed on May 16, 2014. The sale of the module plant in Vénissieux, France, was completed on June 16, 2014.

The result of discontinued operations in the fiscal year breaks down as follows:

T.12

Figures in millions of euros

	2014	2013
Sales revenue	20	306
Other income		51
Expenses	–44	–1,637
Result of discontinued operations	**–24**	**–1,280**
Income taxes		244
Profit after tax	**–24**	**–1,036**
of which attributable to non-controlling interests		–10
of which attributable to parent company	–24	–1,026

The effects of discontinued operations on the statement of comprehensive income are presented below:

T.13

Figures in millions of euros

	2014	2013
Profit after tax	**–24**	**–1,036**
Items that will be reclassified to profit or loss		1
Items that will not be reclassified to profit or loss		1
Comprehensive income	**–24**	**–1,034**
of which attributable to non-controlling interests		–10
of which attributable to parent company	–24	–1,024

The cash flows of discontinued operations break down as follows:

T.14

Figures in millions of euros	2014	2013
Operating activities	–16	–167
Investing activities	0	–1
Financing activities	0	7

The pneumatics business unit of the Drive and Control Technology division was sold as of January 1, 2014. The transaction consisted of the sale of assets of EUR 167 million and the transfer of liabilities of EUR 134 million. The transaction resulted in a gain of EUR 26 million.

Notes to the income statement

1 Sales revenue

Sales revenue amounted to EUR 48,951 million (previous year: EUR 46,068 million). The Mobility Solutions (formerly Automotive Technology) business sector accounted for EUR 33,318 million (previous year: EUR 30,588 million) of this total, the Industrial Technology business sector for EUR 6,709 million (previous year: EUR 6,844 million), the Consumer Goods business sector for EUR 4,179 million (previous year: EUR 3,979 million), and the Energy and Building Technology business sector for EUR 4,627 million (previous year: EUR 4,551 million). Sales revenue that cannot be allocated to the business sectors came to EUR 118 million (previous year: EUR 106 million). Sales of discontinued operations amounting to EUR 20 million (previous year: EUR 306 million) are not allocable to the business sectors.

2 Distribution cost and administrative expenses

T.15

Figures in millions of euros	2014	2013
Administrative expenses	2,528	2,454
Distribution cost	6,949	6,309
	9,477	**8,763**
Discontinued operations	–8	–201
	9,469	**8,562**

The distribution cost includes personnel and indirect costs, depreciation charged in the distribution function, customer service, logistics, market research, sales promotion, shipping, advertising, and warranty costs.

3 Research and development cost

Research and development cost contains both research cost as well as development cost that cannot be capitalized and depreciation on capitalized development cost. In addition, it includes development work charged directly to customers.

T.16

Figures in millions of euros	2014	2013
Total research and development cost	4,997	4,615
Development cost recognized in the reporting period	–225	–233
Depreciation on recognized development cost	188	179
	4,960	**4,561**
Discontinued operations	–1	–18
	4,959	**4,543**

4 Other operating income

T.17

Figures in millions of euros	2014	2013
Income from exchange-rate fluctuations	520	472
Income from the disposal of non-current assets	73	63
Income from rent and leases	10	9
Income from the reversal of provisions	74	55
Sundry other operating income	449	932
	1,126	**1,531**
Discontinued operations		–51
	1,126	**1,480**

In the previous year, sundry other operating income contained EUR 437 million resulting from the remeasurement of the net assets of United Automotive Electronic Systems Co., Ltd., Shanghai, China, in the course of its full consolidation for the first time.

The income from exchange-rate fluctuations is offset by expenses which are disclosed in other operating expenses. These items contain the effective exchange-rate results and the results from foreign-currency derivatives allocable to the operating business.

Leases are accounted for according to the rules pertaining to operating leases, provided that substantially all the risks and rewards associated incidental to ownership lie with the lessor. The assets concerned are recognized in property, plant, and equipment, and the lease payments received, provided they are not disclosed as sales revenue, are recorded in other operating income.

Government grants related to income amounted to EUR 88 million (previous year: EUR 82 million). They are offset against the respective expenses. If there are no such expenses, the grants are disclosed in sundry other operating income.

5 Other operating expenses

T.18

Figures in millions of euros	2014	2013
Expenses from exchange-rate fluctuations	436	555
Valuation allowances on receivables and other assets	43	233
Expenses from the disposal of non-current assets	102	101
Other taxes	64	47
Expenses from the recognition of provisions	92	167
Impairment of goodwill		39
Sundry other operating expenses	189	561
	926	**1,703**
Discontinued operations	–14	–309
	912	**1,394**

6 Financial result

T.19

Figures in millions of euros	2014	2013
Investment income	42	5
Result from the disposal of investments	11	–2
Income from investments	**53**	**3**
Interest and similar income	356	305
Interest and similar expenses	–178	–172
Interest result	**178**	**133**
Gains on disposal of securities	458	344
Losses on disposal of securities	–111	–79
Exchange-rate gains	917	458
Exchange-rate losses	–659	–806
Gains on derivatives	311	377
Losses on derivatives	–610	–276
Other income	19	46
Other expenses	–211	–131
Other financial result	**114**	**–67**
Financial result, total	**345**	**69**
of which financial income	2,114	1,535
of which financial expenses	–1,769	–1,466
Discontinued operations		7
	345	**76**

The line items “gains/losses on derivatives” contain transactions to hedge financial assets. The line item “other expenses” contains impairments of securities totaling EUR 100 million (previous year: EUR 10 million).

Capitalized borrowing costs of EUR 16 million (previous year: EUR 17 million) were deducted from interest expenses. The underlying borrowing rate is 3.5 percent (previous year: 4.0 percent).

Interest income and expenses are attributable to financial instruments not measured at fair value through profit or loss as follows:

T.20

Figures in millions of euros

	2014		2013	
	Interest income	Interest expenses	Interest income	Interest expenses
Loans and receivables	88		64	
Available-for-sale financial assets	267		240	
Financial liabilities measured at amortized cost		178		172
	355	**178**	**304**	**172**

7 Income taxes

Income taxes are classified according to their origin as follows:

T.21

Figures in millions of euros

	2014	2013
Current taxes	597	786
Deferred taxes	117	–490
	714	**296**
Discontinued operations		244
	714	**540**

Deferred taxes are calculated on the basis of the tax rates that apply or that are expected to apply given the current legislation in the individual countries at the expected time of realization. The corporate income tax rate for German companies is 15 percent. Taking into account the solidarity surcharge of 5.5 percent and the trade tax levied on profits recorded in Germany, the total tax rate is 29 percent. The tax rates outside Germany range between 9 percent and 38 percent (previous year: between 7 percent and 41 percent).

As of December 31, the deferred tax assets and liabilities presented in the statement of financial position are attributable to the following items:

T.22

Figures in millions of euros

	2014		2013	
	Assets	**Liabilities**	**Assets**	**Liabilities**
Receivables, other assets, and inventories	455	153	424	140
Securities, investments	2	362	7	294
Property, plant, and equipment	135	437	273	430
Intangible assets	175	581	178	583
Other assets	114	1	76	1
Liabilities	656	63	405	42
Provisions	2,466	51	1,725	44
Other liabilities	1	151	1	22
Unused tax losses and tax credits	354		463	
Total	**4,358**	**1,799**	**3,552**	**1,556**
Netting	–653	–653	–514	–514
	3,705	**1,146**	**3,038**	**1,042**

In the reporting period, deferred tax assets were written down by EUR 333 million (previous year: EUR 285 million).

There are EUR 731 million in unused tax losses for which no deferred tax assets have been recognized (previous year: EUR 762 million). Within the next three years, EUR 27 million (previous year: EUR 23 million) will be forfeited. In addition, deferred tax assets were not recognized on tax credits of EUR 142 million (previous year: EUR 136 million).

Consolidation measures give rise to deferred tax assets of EUR 114 million (previous year: EUR 114 million) and deferred tax liabilities of EUR 9 million (previous year: EUR 9 million).

In the reporting period, changed tax rates in the Bosch Group resulted in a deferred tax expense of EUR 38 million (previous year: deferred tax income of EUR 8 million).

In the reporting period, deferred taxes of EUR 746 million (previous year: EUR 66 million) were recorded directly in equity. Of this total, EUR 55 million decreases (previous year: increase of EUR 49 million) the surplus from securities and EUR 801 million increases retained earnings due to the change in actuarial parameters in accordance with IAS 19 (previous year: EUR 17 million).

The basis for the expected income tax expense is the German tax rate of 29 percent. The difference between expected and disclosed income tax expense is attributable to the following factors:

T.23

Currency figures in millions of euros	2014	2013
Profit before tax	3,375	2,827
Expected income tax expense	979	820
Variances due to tax rate	–20	–88
Non-deductible expenses	101	132
Zero-rated income	–360	–244
Other differences	14	–80
Income tax expense disclosed	**714**	**540**
Effective tax rate	21%	19%

8 Non-controlling interests

Profits attributable to non-controlling interests amount to EUR 233 million (previous year: EUR 166 million). They are counterbalanced by losses of EUR 6 million (previous year: EUR 11 million).

9 Other notes to the income statement

In the reporting period, personnel expenses of EUR 15,325 million (previous year: EUR 14,907 million) were incurred.

Cost of materials amounted to EUR 21,810 million (previous year: EUR 20,640 million).

Information about amortization and depreciation is contained in the notes on non-current assets.

Notes to the statement of financial position

10 Cash and cash equivalents

T.24

Figures in millions of euros	2014	2013
Bank balances (term up to 90 days)	5,502	3,788
Cash and reserve bank deposits	11	11
	5,513	**3,799**
Assets held for sale		0
	5,513	**3,799**

The bank balances are partly invested as secured deposits in tri-party repo transactions. As of the reporting date, the carrying amount of the secured deposits is EUR 2,490 million. The bank provided collateral of the same amount in the form of securities.

11 Securities (current)

The securities classified as current are listed securities with a residual term of less than one year as well as securities which are intended for sale within a year.

12 Trade receivables

T.25

Figures in millions of euros	2014	2013
Trade receivables	8,785	7,878
Assets held for sale		0
	8,785	**7,878**

Information about valuation allowances on trade receivables is contained in the credit risk section of the “Capital and risk management” chapter.

Of the trade receivables, EUR 9 million (previous year: EUR 10 million) are due in more than one year.

13 Other assets (current)

T.26

Figures in millions of euros	2014	2013
Bank balances (term of more than 90 days)	303	130
Loan receivables	331	434
Receivables from finance leases	29	30
Derivative financial assets	52	50
Prepaid expenses	192	151
Receivables from tax authorities (without income tax receivables)	944	800
Receivables from board of management, associates	47	48
Sundry other receivables	373	278
	2,271	**1,921**
Assets held for sale		0
	2,271	**1,921**

The receivables from finance leases stem from products leased by the Security Systems division. As a rule, the agreed term is ten years. The receivables are due as follows:

T.27

Figures in millions of euros	2014	2013
Gross capital expenditures on finance leases		
due not later than one year	39	39
due later than one year and not later than five years	121	117
due later than five years	54	54
	214	**210**
Present value of outstanding minimum lease payments		
due not later than one year	29	30
due later than one year and not later than five years	98	94
due later than five years	48	49
	175	**173**
Unearned finance income	**39**	**37**

There were no unguaranteed residual values.

The outstanding minimum lease payments from operating leases mainly stem from activities of the Security Systems division, and are due as follows:

T.28

Figures in millions of euros	2014	2013
Due not later than one year	49	37
Due later than one year and not later than five years	125	103
Due later than five years	43	43
	217	**183**

14 Inventories

T.29

Figures in millions of euros	2014	2013
Raw materials, consumables, and supplies	2,266	2,070
Work in process	1,364	1,236
Finished goods and merchandise	3,330	3,008
Prepayments	234	205
	7,194	**6,519**
Assets held for sale		0
	7,194	**6,519**

Of the total amount of inventories, an amount of EUR 234 million (previous year: EUR 247 million) is carried at the net realizable value. In the fiscal year, impairment reversals of EUR 31 million (previous year: impairment losses of EUR 20 million) were recognized in profit or loss. No inventories were pledged as collateral.

15 Non-current financial assets

T.30

Figures in millions of euros	2014	2013
Securities	8,731	8,631
Investments	1,179	1,278
Loan receivables	269	243
Receivables from finance leases	146	143
Derivative financial assets	58	23
Other receivables and other assets	169	143
	10,552	**10,461**
Assets held for sale		0
	10,552	**10,461**

Loans with a residual term of more than five years amount to EUR 1 million (previous year: EUR 1 million). There are no other receivables due in more than five years.

Information about valuation allowances on loan receivables and finance lease receivables is contained in the credit risk section of the “Capital and risk management” chapter.

Non-current securities and investments
The securities consist of interest-bearing and other securities as well as shares.

The pledged securities have a carrying amount of EUR 1,075 million (previous year: EUR 1,008 million). The pledged securities satisfy the legal requirement to secure obligations to employees and bank guarantees. Medium-term interest-bearing securities and units equivalent to at least the value of the claims were pledged.

Investments include unlisted investments amounting to EUR 577 million (previous year EUR 687 million). There is no active market for these investments; they are therefore carried at amortized cost. The decline in the number of unlisted investments is due above all to the first-time consolidation of subsidiaries that had previously not been consolidated. At the time of derecognition, these investments were stated at a carrying value of EUR 180 million. There were no material divestments of unlisted investments in the reporting period or in the previous year.

As of the reporting date, the group plans to sell unlisted investments on a small scale.

16 Property, plant, and equipment

T.31

Figures in millions of euros

	Land, buildings belonging to operating assets	Investment property	Plant and equipment	Other equipment, fixtures and furniture, leased assets	Prepayments and assets under construction	Total
Gross values 1/1/2013	**7,412**	**151**	**17,606**	**6,787**	**1,457**	**33,413**
Changes in consolidated group	108		409	11	64	592
Additions	210		791	508	1,030	2,539
Reclassifications	171	1	541	255	–968	
Disposals	–84	–37	–699	–553	–96	–1,469
Exchange differences	–366	–2	–864	–173	–64	–1,469
Gross values 12/31/2013	**7,451**	**113**	**17,784**	**6,835**	**1,423**	**33,606**
Depreciation 1/1/2013	**3,247**	**70**	**12,877**	**5,069**	**34**	**21,297**
Changes in consolidated group	26		195	7		228
Additions	259	1	1,106	642		2,008
Reclassifications	8		–30	30	–8	
Disposals	–53	–35	–648	–493	–1	–1,230
Write-ups	–4		–3			–7
Exchange differences	–175		–637	–121	–1	–934
Depreciation 12/31/2013	**3,308**	**36**	**12,860**	**5,134**	**24**	**21,362**
Carrying amounts 12/31/2013	**4,143**	**77**	**4,924**	**1,701**	**1,399**	**12,244**
Assets held for sale						0
						12,244
Gross values 1/1/2014	**7,451**	**113**	**17,784**	**6,835**	**1,423**	**33,606**
Changes in consolidated group	55		24	–40	12	51
Additions	193		715	570	1,107	2,585
Reclassifications	250	–7	640	196	–1,079	
Disposals	–334	–2	–1,263	–507	–44	–2,150
Exchange differences	173	2	513	135	45	868
Gross values 12/31/2014	**7,788**	**106**	**18,413**	**7,189**	**1,464**	**34,960**
Depreciation 1/1/2014	**3,308**	**36**	**12,860**	**5,134**	**24**	**21,362**
Changes in consolidated group	–7		–12	–34		–53
Additions	197	1	1,019	651		1,868
Reclassifications	–6		34	–21	–7	
Disposals	–281	–1	–1,149	–452	–3	–1,886
Write-ups	–3		–24	–1		–28
Exchange differences	54		303	88	1	446
Depreciation 12/31/2014	**3,262**	**36**	**13,031**	**5,365**	**15**	**21,709**
Carrying amounts 12/31/2014	**4,526**	**70**	**5,382**	**1,824**	**1,449**	**13,251**

In the past fiscal year, there were no indications that items of property, plant, and equipment could be impaired. Consequently, no impairment tests were conducted.

The total depreciation charge for the previous year contained the following impairment losses:

- Land and buildings: EUR 63 million
- Plant and equipment: EUR 124 million
- Other equipment, fixtures and furniture: EUR 27 million

The carrying amounts contain the following amounts from finance leases under which the Bosch Group is the lessee:

- Land and buildings: EUR 7 million (previous year: EUR 17 million)
- Plant and equipment: EUR 1 million (previous year: EUR 2 million)
- Other equipment, fixtures and furniture: EUR 12 million (previous year: EUR 5 million)

The obligations entered into to purchase items of property, plant, and equipment amounted to EUR 499 million (previous year: EUR 343 million), restrictions on title totaled EUR 6 million (previous year: EUR 1 million). Government grants for assets of EUR 19 million (previous year: EUR 12 million) were deducted from the additions in the reporting period.

Investment property comprises rented properties which were measured at amortized cost. Measured at fair value, the portfolio comes to EUR 150 million (previous year: EUR 141 million). The fair values were calculated at corporate headquarters. The land and buildings allocated to level 3 of the fair value hierarchy pursuant to IFRS 13 are measured as follows: land in Germany (fair value: EUR 45 million) is valued on the basis of existing purchase offers, residential property in Germany and Asia (fair value: EUR 105 million) is valued using the discounted earnings or comparative method, based on the ImmoWertV (Verordnung über die Grundsätze für die Ermittlung der Verkehrswerte von Grundstücken: Ordinance on principles to assess the market value of land) and taking the current fabric and market values of the individual properties into account. The rental income from investment property came to EUR 7 million (previous year: EUR 9 million), maintenance expenses totaled EUR 3 million (previous year: EUR 5 million).

A review of the useful lives of property, plant, and equipment revealed that special-purpose machinery is used for a longer period than previously estimated. The useful life on which depreciation is based was therefore extended to eight years. The effect of this change on the depreciation of property, plant, and equipment is presented in the following table:

T.32

Figures in millions of euros

	2014	2015	2016	2017–2020
Depreciation of property, plant, and equipment	–105	–19	22	281

17 Intangible assets

T.33

Figures in millions of euros

	Acquired intangible assets (without goodwill)	Acquired goodwill	Internally generated intangible assets	Total
Gross values 1/1/2013	**3,070**	**5,352**	**1,047**	**9,469**
Changes in consolidated group	673	213	37	923
Additions	112	14	271	397
Disposals	–135	–74	–184	–393
Exchange differences	–92	–64		–156
Gross values 12/31/2013	**3,628**	**5,441**	**1,171**	**10,240**
Amortization 1/1/2013	**1,565**	**756**	**536**	**2,857**
Changes in consolidated group	10			10
Additions	291	39	223	553
Disposals	–132		–184	–316
Exchange differences	–37	–5		–42
Amortization 12/31/2013	**1,697**	**790**	**575**	**3,062**
Carrying amounts 12/31/2013	**1,931**	**4,651**	**596**	**7,178**
Assets held for sale				0
				7,178
Gross values 1/1/2014	**3,628**	**5,441**	**1,171**	**10,240**
Changes in consolidated group	13	–29		–16
Additions	185	4	270	459
Disposals	–96	–668	–199	–963
Exchange differences	178	100		278
Gross values 12/31/2014	**3,908**	**4,848**	**1,242**	**9,998**
Amortization 1/1/2014	**1,697**	**790**	**575**	**3,062**
Changes in consolidated group	1			1
Additions	274		227	501
Disposals	–89	–668	–199	–956
Exchange differences	46	6		52
Amortization 12/31/2014	**1,929**	**128**	**603**	**2,660**
Carrying amounts 12/31/2014	**1,979**	**4,720**	**639**	**7,338**

The amount of amortization for the fiscal year contains the following impairment losses:

- Purchased intangible assets (without goodwill): EUR 0 million (previous year: EUR 7 million)
- Internally generated intangible assets: EUR 64 million (previous year: EUR 69 million)

The goodwill of EUR 4,720 million (previous year: EUR 4,651 million) is attributable to the divisions (cash generating units) as follows:

T.34

Figures in millions of euros

	2014	2013
Gasoline Systems	300	271
Diesel Systems	54	54
Automotive Aftermarket	351	313
Drive and Control Technology	2,115	2,161
Packaging Technology	96	96
Power Tools	362	347
Security Systems	351	333
Thermotechnology	998	996
Other	93	80
	4,720	**4,651**

Goodwill is subjected to an annual impairment test. An impairment loss is recorded when the recoverable amount is below the carrying amount of the cash-generating unit. The recoverable amount is derived from the future cash flows. The cash flows are based on business plans with a planning period of five years.

The parameters used in impairment testing are presented in the following table:

T.35

Percentage figures

	Mobility Solutions		Industrial Technology		Consumer Goods		Energy and Building Technology	
	2014	2013	2014	2013	2014	2013	2014	2013
Growth rate	1.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0
Pre-tax discount rate	11.9	12.5	11.4	12.1	11.2	12.7	10.4	11.5

A risk-free interest rate of 2.1 percent (previous year: 2.5 percent) and a market risk premium of 6.0 percent (previous year: 6.0 percent) were assumed. The standard tax rate used is 29 percent (previous year: 29 percent).

In the reporting period, the annual impairment test did not give rise to any impairment requirement for goodwill. Neither an increase in the discounting rate by 0.5 of a percentage point nor a decrease in the growth rate used after the detailed planning period by 0.5 of a percentage point would have led to the impairment of goodwill.

18 Current and non-current financial liabilities

T.36

Figures in millions of euros

	2014		2013	
	up to 1 year	more than 1 year	up to 1 year	more than 1 year
Bonds		4,223		3,233
Promissory loans		154	346	154
Liabilities to banks	185	648	177	613
Other financial liabilities		3	15	3
	185	**5,028**	**538**	**4,003**
Liabilities held for sale			0	0
	185	**5,028**	**538**	**4,003**

Financial liabilities amounting to EUR 2,576 million (previous year: EUR 1,952 million) are due in more than five years.

Bond conditions

T.37

Currency figures in millions of euros

Interest terms	Interest rate	Beginning of term	End of term	Currency	Nominal value	Fair value 12/31/2014
Fixed	4.375%	05/2006	05/2016	EUR	750	793
Fixed	5.125%	06/2009	06/2017	EUR	600	673
Fixed	5.000%	08/2009	08/2019	EUR	300	364
Fixed	1.543%	08/2012	08/2017	EUR	100	103
Fixed	1.625%	05/2013	05/2021	EUR	500	534
Fixed	2.625%	05/2013	05/2028	EUR	750	862
Fixed	2.979%	05/2013	05/2033	EUR	250	301
Fixed	1.750%	07/2014	07/2024	EUR	750	810
Fixed	2.950%	07/2014	07/2039	EUR	250	295

19 Trade payables

T.38

Figures in millions of euros	2014	2013
Trade payables	3,578	3,220
Notes payable	21	15
	3,599	**3,235**
Liabilities held for sale		0
	3,599	**3,235**

There are no trade payables which are due in more than one year.

20 Other liabilities and provisions

Other liabilities

T.39

Figures in millions of euros	2014		2013	
	up to 1 year	more than 1 year	up to 1 year	more than 1 year
Loans	83	10	142	18
Accruals in the personnel area	1,671		1,439	
Accruals in the sales and marketing area	521		460	
Other accruals	368		355	
Deferred income	142		146	
Tax liabilities (without income tax liabilities)	413		359	
Finance lease obligations	4	14	5	11
Deferred income from tooling compensation received	16	23	21	25
Prepayments received for inventories	484		533	
Derivative financial liabilities	94	16	55	33
Sundry other liabilities	819	99	790	99
	4,615	**162**	**4,305**	**186**
Liabilities held for sale			0	0
	4,615	**162**	**4,305**	**186**

There are neither loans nor sundry other liabilities due in more than five years in the fiscal year 2014 (previous year: EUR 1 million in each case).

The accruals in the personnel area mainly relate to vacation and salary entitlements as well as accrued special payments, while those in the sales and marketing area mainly pertain to bonus and commission payments.

Finance lease obligations primarily stem from vehicle lease agreements with terms of three to six years. The liabilities are due as follows:

T.40

Figures in millions of euros

	2014	2013
Future minimum lease payments		
due not later than one year	6	6
due later than one year and not later than five years	16	12
due later than five years	8	9
Interest portion contained in the future minimum lease payments		
due not later than one year	2	1
due later than one year and not later than five years	6	5
due later than five years	4	5
Present value of outstanding minimum lease payments		
due not later than one year	4	5
due later than one year and not later than five years	10	7
due later than five years	4	4
	18	**16**

Provisions (without income tax provisions and pension provisions)

T.41

Figures in millions of euros

	2014		2013	
	up to 1 year	more than 1 year	up to 1 year	more than 1 year
Tax provisions (without income tax provisions)	25	66	17	63
Provisions in the personnel area	709	1,208	636	1,124
Provisions in the sales and marketing area	1,937	933	1,510	969
Other provisions	568	1,218	663	1,169
	3,239	**3,425**	**2,826**	**3,325**
Liabilities held for sale			0	0
	3,239	**3,425**	**2,826**	**3,325**

Provisions developed as follows:

T.42

Figures in millions of euros

	At 1/1/2014	Changes in consolidated group	Amounts used	Amounts reversed	Increase incl. increase in discounted amount	Exchange adjustments	At 12/31/2014
Tax provisions	860		–74	–68	164	4	886
Provisions in the personnel area	1,760	–1	–483	–99	731	9	1,917
Provisions in the sales and marketing area	2,479	–3	–840	–366	1,519	81	2,870
Other provisions	1,832	4	–322	–112	361	23	1,786
	6,931	**0**	**–1,719**	**–645**	**2,775**	**117**	**7,459**

Of the total increase in provisions, an amount of EUR 49 million (previous year: EUR 40 million) relates to increases in the discounted amount.

Provisions in the personnel area relate to obligations from personnel adjustment measures, from early phased retirement, and from other special benefits for which the time or amount cannot yet be precisely determined. Provisions in the sales and marketing area mainly take account of losses from delivery and warranty obligations, including risks from recall, exchange, and product liability cases. Other provisions are recognized, among other things, for risks from restructuring, purchasing obligations, renewal obligations for rent and lease agreements, litigation risks, and antitrust risks.

Contingent liabilities and other financial obligations

No provisions were recognized for the following contingent liabilities, as it is more likely than not that they will not occur:

T.43

Figures in millions of euros

	2014	2013
Contingent liabilities related to notes issued and transferred	25	17
Contingent liabilities from guarantees	14	526
Other contingent liabilities	16	10
	55	**553**

Obligations from operating leases mainly pertain to lease agreements for technical equipment, for IT equipment, for vehicles, and for buildings. The minimum amount of the undiscounted future payments from operating leases amounts to EUR 670 million (previous year: EUR 600 million).

The obligations are due as follows:

T.44

Figures in millions of euros

	2014	2013
Due not later than one year	213	192
Due later than one year and not later than five years	372	322
Due later than five years	85	86
	670	**600**

The payments of the period of EUR 249 million (previous year: EUR 228 million) recognized in profit or loss are contained in the costs of the functional areas (cost of sales, and distribution, administrative, and research and development cost).

21 Pension provisions and similar obligations

Associates of the companies included in the consolidated financial statements have certain rights in connection with the company pension scheme, depending on the conditions existing in the various countries. The benefit obligations include both currently claimed benefits and future benefit obligations of active associates or associates that have left the company.

The group's post-employment benefits include both defined contribution plans and defined benefit plans. In the case of defined contribution plans, the company pays voluntary contributions to state or private pension or insurance funds, based on legal or contractual provisions. No further payment obligations arise for the company from the payment of these contributions. The defined benefit plans are funded or unfunded pension systems, or systems financed by insurance premiums.

The major pension and post-retirement medical-care plans operated by the Bosch Group are described below. These plans are subject to actuarial risks such as longevity risks, interest fluctuation risks, and capital market risks.

Germany
The company pension scheme (Bosch bAV Plan), introduced on January 1, 2006, is a contribution-based plan with salary-based contributions. The Bosch bAV Plan is partly funded via an external pension fund. The value of the assets of the external pension fund is offset against the pension obligation calculated using the projected unit credit method. In Germany, the external pension funds are Bosch Pensionsfonds AG and Bosch Hilfe e.V.

During the vesting period, employer and employee contributions are added to the assets of Bosch Pensionsfonds AG up to the tax-allowed ceiling. Contributions that exceed the tax-allowed ceiling are allocated to the unfunded obligation. The benefit amount rises in line with the performance of Bosch Pensionsfonds. Grandfather provisions were transferred to the Bosch bAV Plan. For a constantly decreasing number of employees in the vesting period, a transitional arrangement guarantees a fixed rate of return on the defined benefit obligation.

On reaching retirement, or in the event of occupational disability or death, the earned benefits are paid out in the form of a lump-sum payment, pension payments, or a lifelong annuity.

Japan
The majority of the pension obligations are corporate pension plans (CPPs), generally in the form of funded career average pension plans. The benefits are based on salary-based contributions that are subject to interest. The rate of return depends on the structure of the plan.

There are also obligations from unfunded retirement allowance plans (RAPs), the benefits of which are based on years of service and final salary.

All the benefits are paid out in the form of lump-sum payments on termination, death, or reaching retirement age. In some CPPs, annuity payments are possible for associates after a certain period of service.

Switzerland
Bosch has a funded pension plan. The Bosch pension plan is organized as a foundation. All the demographic and financial risks are borne by the foundation and regularly assessed by the foundation's board of trustees. In the case of a deficit, adjustments can be made such as a change in the pension factors or an increase in future contributions.

Pension plans are governed by the BVG (Bundesgesetz über die berufliche Alters-, Hinterlassenen- und Invalidenvorsorge: Swiss Pension Fund Law). All benefits are defined by law, and the BVG stipulates the minimum benefits to be paid. The Bosch pension plan meets all legal requirements.

Both employer and associates make contributions to the Bosch pension plan. The benefits are paid out either as a lump sum or a lifelong annuity.

United Kingdom
Bosch finances a closed final-salary pension plan. The obligation is funded via a trust association which is legally independent of Bosch, and which is operated in accordance with the law. The trustees are required to comply with the legal requirements. The plan is in deficit and is being restructured.

The benefits earned are paid out on reaching retirement age, or in the event of occupational disability or death.

United States
Bosch maintains the Bosch pension plan and eight additional smaller pension plans, all of which are funded and in line with the ERISA requirements. The legal minimum funding provisions therefore apply to these plans. The Bosch pension plan is a cash balance plan under which the benefits depend on age, term of service, and salary. Benefits are paid out on reaching retirement age or in the event of death. The plan does not accept new members.

Two unfunded pension plans are also closed for new members; these provide benefits for certain members of management or for members of the Bosch pension plan whose income lies above the statutory contribution assessment basis. The benefits depend on age, term of service, and salary, and are paid out on reaching retirement age or in the event of death.

In addition, Bosch finances thirteen unfunded plans for post-employment medical care. Eight plans are already closed. The level of benefits and the contributions for pensioners vary depending on location, age, and term of service. The benefits include healthcare benefits and life assurance contributions for pensioners and their spouses.

Actuarial calculations and estimates are made for all defined benefit plans. Besides assumptions about life expectancy, and taking index-linked developments into account, the calculations are based on the following parameters, which vary from one country to another depending on local economic circumstances:

T.45

Percentage figures

	Germany		Japan		Switzerland		UK		USA		Total	
	2014	2013	2014	2013	2014	2013	2014	2013	2014	2013	2014	2013
Discount factor	2.0	3.5	0.6	1.0	1.4	2.3	3.4	4.4	4.0	4.8	2.3	3.6
Future salary increases	3.0	3.0	2.5	2.5	2.0	2.0	3.8	4.1	3.5	3.5	3.0	3.0
Pension increases	1.8	1.8	n.a.	n.a.	0.1	0.2	3.0	3.1	n.a.	n.a.	1.6	1.6

n.a. not applicable

To determine the discount factor in the euro zone, reference was made to bonds which were rated AA by at least one rating agency as of the reporting date.

The estimates of future salary increases are made, among other things, on the basis of the economic situation and inflation.

The pension plans are measured using the current mortality tables as of December 31 of the fiscal year concerned. As of December 31, 2014, the following mortality tables are used in the key countries:

T.46

Germany	Heubeck 2005G mortality tables
Japan	EPF 2009
Switzerland	BVG 2010 generation tables for pensioners, BVG 2010 P19 for future beneficiaries
UK	S1PXA with 2011 CMI projections
USA	RP2014, projected by MP2014; unadjusted

For the key regions, the present value of the defined benefit obligation can be reconciled to the provision as follows:

T.47

Figures in millions of euros

	Present value of the obligation	Plan assets	Other assets	Unrecog-nized asset	Provision
At 12/31/2014					
Germany	11,409	–2,400			9,009
Japan	217	–203	14		28
Switzerland	997	–961	2		38
UK	281	–203			78
USA	1,796	–1,320			476
Other	458	–160	1	7	306
	15,158	**–5,247**	**17**	**7**	**9,935**
At 12/31/2013					
Germany	9,055	–2,064	0		6,991
Japan	211	–184	1		28
Switzerland	920	–906	10		24
UK	222	–170			52
USA	1,382	–1,091			291
Other	352	–141	4	12	227
	12,142	**–4,556**	**15**	**12**	**7,613**

The development of the net liability of the defined benefit obligation is presented in the following table:

T.48

Figures in millions of euros	Present value of the obligation	Plan assets	Other assets	Unrecog-nized asset	Provision
At 1/1/2014	**12,142**	**–4,556**	**15**	**12**	**7,613**
Pension cost charged to profit or loss					
Current service cost	439				439
Past service cost	–7				–7
Gains from plan settlements not related to past service cost	–2				–2
Net interest income/expense	427	–172		2	257
Other		6			6
	857	**–166**	**0**	**2**	**693**
Remeasurement					
Return on plan assets (excluding amounts included in net interest)		–196			–196
Losses arising from changes in demographic assumptions	46				46
Losses from changes in financial assumptions	2,356				2,356
Experience losses	65				65
Other adjustments				–7	–7
	2,467	**–196**	**0**	**–7**	**2,264**
Contributions					
Employer		–335			–335
Beneficiaries	16	–16			0
	16	**–351**	**0**	**0**	**–335**
Benefits paid	–536	189			–347
Special effects (plan settlement)					0
Transfers	12	1			13
Currency translation	251	–192			59
Changes in consolidated group	–51	24			–27
Changes in other assets			2		2
At 12/31/2014	**15,158**	**–5,247**	**17**	**7**	**9,935**

T.49

Figures in millions of euros

	Present value of the obligation	Plan assets	Other assets	Unrecog-nized asset	Provision
At 1/1/2013	**12,003**	**–4,282**	**1**	**10**	**7,732**
Pension cost charged to profit or loss					
Current service cost	442				442
Past service cost	1				1
Gains from plan settlements not related to past service cost	–1				–1
Net interest income/expense	423	–149		1	275
Other	0	6			6
	865	**–143**	**0**	**1**	**723**
Remeasurement					
Return on plan assets (excluding amounts included in net interest)		–236			–236
Losses arising from changes in demographic assumptions	33				33
Losses from changes in financial assumptions	73				73
Experience gains	–32				–32
Other adjustments		0		4	4
	74	**–236**	**0**	**4**	**–158**
Contributions					
Employer		–319			–319
Beneficiaries	15	–15			0
	15	**–334**	**0**	**0**	**–319**
Benefits paid	–649	315			–334
Special effects (plan settlement)	2	–2			0
Transfers	–1	0			–1
Currency translation	–169	127		–3	–45
Changes in consolidated group	2	–1			1
Changes in other assets			14		14
At 12/31/2013	**12,142**	**–4,556**	**15**	**12**	**7,613**

The fund assets comprise the following components:

T.50

Percentage figures

	Germany		Japan		Switzerland		UK		USA	
	2014	2013	2014	2013	2014	2013	2014	2013	2014	2013
Cash and cash equivalents	1	2	1	0	6	5			3	1
Equity instruments	38	36	40	41	25	21	40	46	43	48
of which Europe	50	58	10	11	52	55	58	70	14	14
of which North America	23	17	25	24	34	32	22	15	72	73
of which Asia Pacific	18	16	65	65	7	8	16	12	8	7
of which emerging markets	9	9			5	5	4	3	6	6
of which other					2	0			0	0
Debt instruments	48	48	54	53	23	22	54	48	54	51
of which government bonds	41	46	85	83	33	36	28	29	35	35
of which corporate bonds	50	43	5	6	52	39	72	71	65	65
of which other debt instruments	9	11	10	11	15	25				
Property	8	8			33	35				
Insurance			5	5			4	4		
Other	5	6	0	1	13	17	2	2		

Quoted prices in an active market are available for the asset classes cash, equity instruments, and debt instruments. For most other classes of assets, there are no quoted prices in an active market.

Duration and estimated maturities of the pension obligation
The weighted duration of the pension obligation as of December 31, 2014, is 15.5 years (previous year: 14.7 years).

Estimated maturities of the undiscounted estimated pension payments

T.51

Figures in millions of euros

	2014	2013
Less than one year	565	501
Between one and two years	550	526
Between two and three years	580	531
	1,695	**1,558**

The estimated additions to plan assets in the fiscal year 2015 amount to EUR 318 million (previous year: EUR 343 million).

The estimated benefits to be paid directly in the fiscal year 2015 amount to EUR 354 million (previous year: EUR 328 million).

Sensitivity of the pension provision relating to actuarial parameters:

T.52

Percentage figures

	Germany		Japan		Switzerland		UK		USA	
	2014	2013	2014	2013	2014	2013	2014	2013	2014	2013
Discount rate										
Increase of 0.5 percentage points	–6.7	–6.0	–4.9	–4.3	–4.9	–5.0	–9.0	–8.5	–6.5	–6.1
Decrease of 0.5 percentage points	7.4	6.7	5.3	3.8	5.5	5.6	10.2	9.6	7.3	6.8
Salary increase										
Increase of 0.25 percentage points	0.1	0.1	0.7	0.7	0.3	0.3	0.9	0.9	0.0	0.0
Decrease of 0.25 percentage points	–0.1	–0.1	–0.7	–0.7	–0.3	–0.3	–0.8	–0.8	0.0	0.0
Pension increase										
Increase of 0.25 percentage points	0.7	0.7	n.a.	n.a.	2.5	2.5	1.5	1.5	n.a.	n.a.
Decrease of 0.25 percentage points	–0.6	–0.6	n.a.	n.a.	–2.4	–2.4	–1.4	–1.4	n.a.	n.a.
Life expectancy										
Increase by one year	2.1	2.1	n.a.	n.a.	3.3	3.3	4.1	4.1	2.7	2.7

n.a. not applicable

The sensitivity analyses of the defined benefit obligation for the main actuarial assumptions are based on the same methods as those used for the post-employment benefit obligations presented in the consolidated statement of financial position (projected unit credit method). In each case, one assumption was changed leaving the other assumptions unchanged. This means that possible correlation effects were not considered.

Defined contribution plans
Expenses for defined contribution plans amounted to EUR 899 million (previous year: EUR 841 million).

22 Equity

The issued capital of EUR 1,200 million and capital reserve of EUR 4,557 million correspond to the items of the statement of financial position disclosed by Robert Bosch GmbH. The issued capital is divided between the shareholders as follows:

Shareholders of Robert Bosch GmbH

T.53

Percentage figures

	Shareholding	Voting rights
Robert Bosch Stiftung GmbH	92.0	
Robert Bosch Industrietreuhand KG		93.2
Bosch family	7.4	6.8
Robert Bosch GmbH (treasury stock)	0.6	

Retained earnings contain profits that have not been distributed and that were generated in the past by the entities included in the consolidated financial statements, as well as other comprehensive income. The effects of changes in actuarial parameters in the pension provisions are disclosed in the “Other changes” column of other comprehensive income. This position also contains differences between purchase price and purchased pro-rata equity of additional share purchases.

Retained earnings also consider treasury stock of EUR 62 million.

The unappropriated earnings of the group match those of Robert Bosch GmbH.

Non-controlling interests
The shares of non-controlling interests in the equity of the consolidated subsidiaries mainly comprise the non-controlling interests in United Automotive Electronic Systems Co., Ltd., Shanghai, Bosch Automotive Diesel Systems Co., Ltd., Wuxi, both China, and Bosch Ltd., Bangalore, India.

Other notes

23 Statement of cash flows

The statement of cash flows presents cash inflows and outflows from operating activities, investing activities, and financing activities. The presentation was changed in the fiscal year 2014 to the extent that the statement of cash flows takes EBIT as the starting point. The previous year’s figures have been presented in a comparable format.

The cash flow is derived indirectly, starting from EBIT. EBIT is earnings before taxes and before the financial result. Cash inflows from operating activities are adjusted for non-cash expenses and income (mainly depreciation of non-current assets), and take into account cash-effective financial expenses, financial income, and taxes, as well as changes in working capital.

The investing activities mainly comprise additions to non-current assets, including leased assets and the purchase and disposal of subsidiaries and other business entities, as well as of securities.

Financing activities combine the inflows and outflows of cash and cash equivalents from borrowing and repayment of financial liabilities, from dividends, and from the acquisition of non-controlling interests.

Changes in items of the statement of financial position contained in the statement of cash flows cannot be directly derived from the statement of financial position, as these have been adjusted for exchange-rate effects and changes in the consolidated group. The change in accounting for pensions is adjusted to eliminate actuarial gains and losses.

The liquidity contained in the statement of cash flows contains cash of EUR 5,513 million (previous year: EUR 3,799 million). In the reporting period, there was no transfer restriction for cash and cash equivalents.

Effects of acquisitions on the cash flow are explained in the section on business combinations.

24 Segment reporting

Business sector data

Sales and earnings of continuing operations

T.54

Figures in millions of euros

	Mobility Solutions		Industrial Technology		Consumer Goods	
	2014	2013	2014	2013	2014	2013
External sales	33,318	30,588	6,709	6,844	4,179	3,979
EBIT	2,402	2,359	67	–83	549	415

Disclosures including discontinued operations

T.55

Figures in millions of euros

	Mobility Solutions		Industrial Technology		Consumer Goods	
	2014	2013	2014	2013	2014	2013
External sales	33,318	30,588	6,709	6,844	4,179	3,979
Intersegment sales	254	137	237	180	35	34
Total sales	33,572	30,725	6,946	7,024	4,214	4,013
EBIT	2,402	2,359	67	–83	549	415
of which: profit from entities consolidated using the equity method	32	8	1		223	154
Non-cash expenses (without depreciation)	2,425	2,186	456	381	210	235
Amortization and depreciation	1,769	1,657	254	282	127	137
Impairment losses on intangible assets and property, plant, and equipment	64	81		116		16
Non-cash income	448	556	102	93	35	35
Assets	10,881	9,400	2,901	2,828	1,664	1,542
Investments measured at equity	445	424	29		1,192	1,245

	Energy and Building Technology		All other segments		Consolidation		Group	
	2014	2013	2014	2013	2014	2013	2014	2013
	4,627	4,551	118	106			48,951	46,068
	171	106	–159	–46			3,030	2,751

	Energy and Building Technology		All other segments		Consolidation		Group	
	2014	2013	2014	2013	2014	2013	2014	2013
	4,627	4,551	138	412			48,971	46,374
	17	21			–543	–372		
	4,644	4,572	138	412	–543	–372	48,971	46,374
	171	106	–183	–1,319			3,006	1,478
							256	162
	244	1,118	135	9			3,470	3,929
	135	140	20	16			2,305	2,232
		83		33			64	329
	95	64	55	15			735	763
	1,586	1,913	257	58			17,289	15,741
							1,666	1,669

Based on the internal management and reporting structure, the Bosch Group is divided into four business sectors. These are the reportable segments and result from the combination of divisions in accordance with the criteria set forth in IFRS 8. The operating business within the business sectors is the responsibility of the divisions.

From the start of the fiscal year 2015 onwards, the business sectors have had English designations only. The renaming did not have any substantive effect, i.e., in terms of the activities allocated to the individual business sectors.

The Mobility Solutions (formerly Automotive Technology) business sector mainly consists of the following business segments: injection technology for internal-combustion engines, alternative powertrain concepts, efficient and networked powertrain peripherals, systems for active and passive driving safety, assistance and comfort functions, technology for user-friendly infotainment as well as car-to-car and Car2X communication, and concepts, technology, and services for the automotive aftermarket.

The Industrial Technology business sector combines the following activities:

- Automation technology (technologies for drives, controls, and motion)
- Packaging technology (machinery and packaging lines for the confectionery, foodstuffs, beverage, and tobacco industry, as well as for the pharmaceuticals industry)

The operations of the Consumer Goods business sector comprise the production and distribution of

- Power tools (tools for the trade, industry, and DIY, accessories, garden tools, as well as industrial tools and measuring equipment)
- Household appliances (appliances for cooking, washing-up, washing, drying, cooling, freezing, floor care, etc.). These business activities are included in the consolidated financial statements using the equity method

The Energy and Building Technology business sector comprises the following activities:

- Heating systems (heating and hot-water boilers including open- and closed-loop control systems)
- Security systems (video surveillance, public address systems, evacuation systems, and access control)
- Services to increase energy-efficiency in non-residential buildings

Business segments which are not reportable are combined and presented in the category “All other segments.” This mainly relates to financial and holding companies as well as other service companies. From the fiscal year 2014 onwards, the remaining activities in the photovoltaics area are likewise allocated to the “All other segments” category. The previous-year disclosures were presented accordingly.

Positions that belong to financing activities are not included in the segment reporting.

Operating value contribution is the main controlling parameter of our value-based management. In addition to this earnings ratio, the internal reporting to management also reports EBIT at segment level.

Transfer prices between the business segments are determined at arm’s length.

The main items included in non-cash expenses are bad debt allowances, additions to provisions, as well as losses on the disposal of items of property, plant, and equipment and of intangible assets.

The main items included in non-cash income are income from the reversal of provisions as well as gains on the disposal of items of property, plant, and equipment and of intangible assets.

Segment assets comprise trade receivables as well as inventories, in both cases before valuation allowances.

Reconciliation statements

T.56

Figures in millions of euros	2014	2013
Sales		
Sales by reportable segment	49,376	46,334
Sales of all other segments	138	412
Consolidation	–543	–372
	48,971	**46,374**
Discontinued operations	20	306
Group sales	**48,951**	**46,068**
EBIT		
EBIT by reportable segment	3,189	2,797
EBIT of all other segments	–183	–1,319
Financial income	2,114	1,535
Financial expenses	–1,769	–1,466
	3,351	**1,547**
Discontinued operations	–24	–1,280
Profit before tax	**3,375**	**2,827**
Assets		
Assets by reportable segment	17,032	15,683
Assets of all other segments	257	58
Impairment losses on segment assets	–1,310	–1,344
Other current assets	9,329	6,603
Non-current assets	36,616	34,725
	61,924	**55,725**
Assets held for sale		0
Group assets	**61,924**	**55,725**

Disclosures by important country

T.57

Figures in millions of euros

	Sales by registered office of the customer		Non-current assets[1]	
	2014	2013	2014	2013
Europe	**26,057**	**25,766**	**13,554**	**13,180**
of which Germany	10,858	10,720	8,859	8,481
of which France	2,211	2,350	218	233
of which the U.K.	2,302	2,151	263	209
of which Italy	1,799	1,765	485	494
Americas	**9,939**	**9,498**	**2,340**	**2,183**
of which the U.S.	7,352	6,715	1,820	1,726
Asia	**12,308**	**10,414**	**4,646**	**4,012**
of which China	6,383	5,009	3,000	2,536
of which Japan	1,962	1,956	468	493
Other regions	**667**	**696**	**49**	**47**
	48,971	**46,374**	**20,589**	**19,422**
Discontinued operations	20	306		0
Group	**48,951**	**46,068**	**20,589**	**19,422**

[1] The non-current assets consist of intangible assets and property, plant, and equipment.

The customer structure of the Bosch Group in the reporting period does not reveal any concentration on individual customers.

25 Additional disclosures on financial instruments

Net profit/loss by category

The table below presents the net effects of financial instruments recognized in the income statement, classified by the categories defined in IAS 39:

T.58

Figures in millions of euros	2014	2013
Loans and receivables	230	–299
Available-for-sale financial assets	693	410
Assets and liabilities held for trading	–285	34
Financial liabilities measured at amortized cost	–213	–266

The net profit/loss contains the result of the receivables and loan valuation, the result of the reversal of the reserve from securities in equity, exchange-rate gains and losses, interest income and expenses, as well as the result from derivatives.

The valuation gains and losses from securities and equity investments are presented in the statement of comprehensive income.

Book values, carrying amounts, and fair values by category

T.59

Figures in millions of euros

	Category pursuant to IAS 39	Carrying amount 2014	Carrying amount pursuant to IAS 39			Carrying amount pursuant to IAS 17	Fair value 2014
			(Amortized cost)	Fair value recognized in other comprehensive income	Fair value recognized in profit or loss		
Assets							
Cash and cash equivalents	LaR	5,513	5,513				
Current securities		1,076					
Available-for-sale financial assets	AfS	1,076		1,076			1,076
Trade receivables	LaR	8,785	8,785				
Other current assets		2,271					
Receivables from finance leases	n.a.	29				29	
Other financial assets	LaR	952	952				
Derivative financial assets	FAHfT	52			52		52
Non-financial assets within the meaning of IFRS 7	n.a.	1,238					
Non-current financial assets		10,552					
Available-for-sale financial assets	AfS	8,731		8,731			8,731
Investments	AfS	1,179	577	602			602
Derivative financial assets	FAHfT	58			58		58
Receivables from finance leases	n.a.	146				146	
Other financial assets	LaR	354	354				351
Non-financial assets within the meaning of IFRS 7	n.a.	84					

Figures in millions of euros

	Category pursuant to IAS 39	Carrying amount 2014	Carrying amount pursuant to IAS 39			Carrying amount pursuant to IAS 17	Fair value 2014
			(Amortized cost)	Fair value recognized in other comprehensive income	Fair value recognized in profit or loss		
Equity and liabilities							
Trade payables	FLAC	3,599	3,599				
Current financial liabilities		185					
Liabilities to banks	FLAC	185	185				
Current other liabilities		4,615					
Derivative financial liabilities	FLHfT	94			94		94
Finance lease obligations	n.a.	4				4	
Sundry financial liabilities	FLAC	811	811				
Other non-financial liabilities within the meaning of IFRS 7	n.a.	3,706					
Non-current financial liabilities		5,028					
Bonds	FLAC	4,223	4,223				4,735
Promissory loans	FLAC	154	154				188
Liabilities to banks	FLAC	648	648				677
Other financial liabilities	FLAC	3	3				3
Other non-current liabilities		162					
Derivative financial liabilities	FLHfT	16			16		16
Finance lease obligations	n.a.	14				14	
Sundry financial liabilities	FLAC	54	54				56
Other non-financial liabilities within the meaning of IFRS 7	n.a.	78					

LaR Loans and receivables
AfS Available-for-sale financial assets
FAHfT Financial assets held for trading
FLAC Financial liabilities measured at amortized cost
FLHfT Financial liabilities held for trading
n.a. not applicable

T.60

Figures in millions of euros

	Category pursuant to IAS 39	Carrying amount 2013	Carrying amount pursuant to IAS 39			Carrying amount pursuant to IAS 17	Fair value 2013
			(Amortized cost)	Fair value recognized in other comprehensive income	Fair value recognized in profit or loss		
Assets							
Cash and cash equivalents	LaR	3,799	3,799				
Current securities		593					
Available-for-sale financial assets	AfS	593		593			593
Trade receivables	LaR	7,878	7,878				
Other current assets		1,921					
Receivables from finance leases	n.a.	30				30	
Other financial assets	LaR	802	802				
Derivative financial assets	FAHfT	50			50		50
Non-financial assets within the meaning of IFRS 7	n.a.	1,039					
Non-current financial assets		10,461					
Available-for-sale financial assets	AfS	8,631		8,631			8,631
Investments	AfS	1,278	687	591			591
Derivative financial assets	FAHfT	23			23		23
Receivables from finance leases	n.a.	143				143	
Other financial assets	LaR	311	311				312
Non-financial assets within the meaning of IFRS 7	n.a.	75					

Figures in millions of euros	Category pursuant to IAS 39	Carrying amount 2013	Carrying amount pursuant to IAS 39			Carrying amount pursuant to IAS 17	Fair value 2013
			(Amortized cost)	Fair value recognized in other comprehensive income	Fair value recognized in profit or loss		
Equity and liabilities							
Trade payables	FLAC	3,235	3,235				
Current financial liabilities		538					
Promissory loans	FLAC	346	346				
Liabilities to banks	FLAC	177	177				
Other financial liabilities	FLAC	15	15				
Current other liabilities		4,305					
Derivative financial liabilities	FLHfT	55			55		55
Finance lease obligations	n.a.	5				5	
Sundry financial liabilities	FLAC	846	846				
Other non-financial liabilities within the meaning of IFRS 7	n.a.	3,399					
Non-current financial liabilities		4,003					
Bonds	FLAC	3,233	3,233				3,394
Promissory loans	FLAC	154	154				186
Liabilities to banks	FLAC	613	613				634
Other financial liabilities	FLAC	3	3				3
Other non-current liabilities		186					
Derivative financial liabilities	FLHfT	33			33		33
Finance lease obligations	n.a.	11				11	
Sundry financial liabilities	FLAC	76	76				79
Other non-financial liabilities within the meaning of IFRS 7	n.a.	66					

The carrying amounts of the financial assets and liabilities, classified by the categories of IAS 39, are as follows:

T.61

Figures in millions of euros	2014	2013
Loans and receivables	15,604	12,790
Available-for-sale financial assets	10,986	10,502
Financial assets held for trading	110	73
Financial liabilities measured at amortized cost	9,677	8,698
Financial liabilities held for trading	110	88

Composition of the derivative financial instruments

T.62

Figures in millions of euros	Market values				Nominal values	
	2014	2014	2013	2013	2014	2013
	up to 1 year	more than 1 year	up to 1 year	more than 1 year		
Derivatives with a positive market value						
Interest derivatives	**0**		**0**	**0**	**2**	**133**
of which interest swaps				0		114
of which other interest derivatives	0		0		2	19
Foreign currency derivatives	**45**	**1**	**45**	**2**	**1,568**	**2,686**
Other derivatives	**7**	**57**	**5**	**21**	**80**	**56**
Derivatives with a negative market value						
Interest derivatives	**1**	**1**	**1**	**1**	**77**	**296**
of which interest swaps	0	1	1	1	11	227
of which other interest derivatives	1		0	0	66	69
Foreign currency derivatives	**66**	**1**	**37**	**19**	**4,413**	**2,662**
Other derivatives	**27**	**14**	**17**	**13**	**398**	**206**

The foreign currency derivatives are mainly forward exchange contracts.

The fair values of the financial assets and financial liabilities in accordance with IFRS 13 are derived as follows:

T.63

Figures in millions of euros

	Category pursuant to IAS 39	Level 1[1]		Level 2[2]		Total	
		2014	2013	2014	2013	2014	2013
Financial assets							
Investments	AfS	602	591			602	591
Derivative financial instruments	FAHfT	5	1	105	72	110	73
of which current		5	1	47	49	52	50
of which non-current				58	23	58	23
Available-for-sale financial assets	AfS	3,829	3,231	5,978	5,993	9,807	9,224
of which current		563	105	513	488	1,076	593
of which non-current		3,266	3,126	5,465	5,505	8,731	8,631
Other financial assets	LaR			351	312	351	312
Financial liabilities							
Derivative financial instruments	FLHfT	2	4	108	84	110	88
of which current		2	4	92	51	94	55
of which non-current				16	33	16	33
Bonds	FLAC			4,735	3,394	4,735	3,394
Promissory loans	FLAC			188	186	188	186
Liabilities to banks	FLAC			677	634	677	634
Other financial liabilities	FLAC			3	3	3	3
Sundry financial liabilities	FLAC			56	79	56	79

[1] Fair value is calculated on the basis of listed, unadjusted market prices on active markets

[2] Fair value is determined on the basis of market data such as share prices, exchange rates, or interest curves using market-based valuation techniques (e.g. discounted cash flow method or Black-Scholes model)

At the end of the fiscal year, items are reviewed to determine whether they need to be reclassified between individual levels of the fair value hierarchy. In the current fiscal year, a small volume of available-for-sale securities were reclassified from level 1 to level 2, as they were no longer measured at their stock market price.

26 Capital and risk management

Capital management
The main objective of the centralized capital management of the Bosch Group is to maintain the company's sound financial substance and thus to secure the financial independence and flexibility required for further growth.

The operating value contribution is the central controlling variable of our financial management accounting system. It is calculated by deducting the cost of capital from EBIT. Additional adjustments are also made in certain other respects, such as recognition of impairment losses, pension provisions, and provisions for losses arising from delivery commitments. The development of the operating value contribution is the yardstick used to assess performance. It is also used for portfolio management. It is supplemented for capital management purposes by the conventional financial, liquidity, and indebtedness indicators.

Hedging policy and financial derivatives
The operative business of the Bosch Group is impacted in particular by fluctuations in exchange and interest rates as well as commodity-price risks on the procurement side. Business policy aims to limit these risks by means of hedging. All hedging transactions are implemented at corporate level.

Internal regulations and guidelines set down a mandatory framework and define the responsibilities related to investment and hedging transactions. According to these regulations, derivatives may only be used in connection with operative business, financial investments, or financing transactions; speculative transactions are not allowed. Trading limits are an important component of the guidelines. Hedges are closed solely via banks whose creditworthiness is regarded as impeccable. The rating given by leading agencies as well as current developments in the financial markets are taken into account. The creditworthiness of the banking partners of the Bosch Group is closely monitored and the risk mitigated by counterparty limits.

To reduce the credit risk of the bank, fixed-term deposits are in some cases entered into as secured deposits in tri-party repo transactions. In such cases, the bank provides predefined securities as collateral. The transactions themselves, as well as the management and valuation of the securities, are managed by a clearing center. For details, please refer to the "Cash and cash equivalents" chapter.

The decision-making bodies are committees for commodities, foreign currencies, and investments that meet at regular intervals. There is a spatial and functional segregation of trading, settlement, and control functions. Key tasks of the control function include determining risks using the value-at-risk method as well as the basis-point-value method, and ongoing compliance checks with instructions and guidelines.

Each month, the risk of financial investments is calculated using the value-at-risk concept for the next month. Prescribed risk limits for the various investment categories limit the potential loss. The forecast quality of the value-at-risk method is tested by means of monthly backtesting. Management is informed monthly about risk analyses and the results of investments and hedges.

Currency risk
Currency risks of the operative business are mitigated by the central management of selling and purchasing currencies. The currency risk is determined on the basis of the worldwide consolidated cash flow in the respective currencies. Based on the business plan, estimated inflows and outflows in the various countries for the planning period are aggregated in a foreign exchange balance plan. The resulting net position is used for the central management of currency exposures.

The largest net currency position of the planned currency cash flow is in CNY and USD.

Hedging largely takes the form of forward exchange contracts; currency options and currency swaps to secure group financing are used to a lesser extent. These transactions, which are only entered into with banks, are subject to minimum requirements with respect to nature, scope, and complexity.

The risk of the entire operative foreign currency position is determined using the value-at-risk concept, supplemented by worst-case analyses. These risk analyses and the hedge result are determined monthly and presented to management.

To present the currency risks in accordance with IFRS 7 for the most important foreign currencies, all monetary assets and monetary liabilities denominated in foreign currency for all consolidated companies were analyzed at the end of the reporting period and sensitivity analyses carried out for the respective currency pairs, in terms of the net risk.

A change in the EUR of 10 percent (starting from the closing rate) against the foreign currencies listed in the table would have the following implications for the profit before tax:

T.64

Figures in millions of euros

	10% increase in EUR		10% decrease in EUR	
	2014	2013	2014	2013
CHF	18	13	–17	–10
CNY	–38	–25	37	25
CZK	–42	–35	46	39
GBP	2	0	–2	–3
HUF	–10	–16	12	13
JPY	1	7	0	–10
PLN	–5	–9	5	9
RUB	–15	–9	14	5
TRY	–66	–65	68	65
USD	–41	–146	41	146

A change in the USD of 10 percent (starting from the closing rate) against the foreign currencies listed in the table would have the following implications for the profit before tax:

T.65

Figures in millions of euros

	10% increase in USD		10% decrease in USD	
	2014	2013	2014	2013
CNY	–27	–60	27	60

The effects on earnings shown here mainly result from loans within the Bosch Group which, by way of an exception, were granted in a currency other than the local currency of the borrower, e.g. because it can be repaid from expected cash flows in this currency. The currency risk for the statement of financial position does not correspond to the economic risk, which is determined on the basis of forecast cash flows.

Interest-rate risks
Risks from anticipated changes in interest rates on investments and borrowings are limited by select use of derivative financial instruments. These are mainly interest swaps and interest futures.

An analysis of the interest risk was carried out in accordance with IFRS 7. The sensitivity analysis considered assets and liabilities subject to floating interest rates, available-for-sale fixed-rate securities, and interest derivatives. Mutual funds and money market funds are not considered.

A change in the market interest rate by 100 basis points (starting from interest rate on the cut-off date) would have the following effect on the reserve from securities in equity and the profit before tax:

T.66

Figures in millions of euros

	Increase in market interest level by 100 basis points		Decrease in market interest level by 100 basis points	
	2014	2013	2014	2013
Reserve from securities	–235	–196	235	196
Profit before tax	25	30	–25	–30

Share-price risks
Derivatives are used on a small scale to limit the risks from investments in shares.

The analysis of the share-price risk in accordance with IFRS 7 took into account share portfolios in the “available-for-sale financial assets” category, investments measured at fair value, as well as share derivatives with a total carrying amount of EUR 3,493 million (previous year: EUR 3,115 million).

A change in the share price of 10 percent (starting from share price on the cut-off date) would have the following effect on the reserve from securities in equity and the profit before tax:

T.67

Figures in millions of euros

	10% increase in share price		10% decrease in share price	
	2014	2013	2014	2013
Reserve from securities	350	313	–318	–301
Profit before tax	2	2	–34	–14

Other price risks
Derivatives and physical fixed-price contracts are used to limit the risks of fluctuating commodity prices. The analysis of the commodity-price risk in accordance with IFRS 7 took into account commodity derivatives measured as of the reporting date.

A change in the forward-rate level of 10 percent (starting from forward rate on the reporting date) would have the following effect on the profit before tax:

T.68

Figures in millions of euros

	10% increase in forward rates		10% decrease in forward rates	
	2014	2013	2014	2013
Profit before tax	39	19	–39	–19

As of the reporting date, the Bosch Group is not aware that it is exposed to any significant other price risks as defined by IFRS 7.

Credit risks
The maximum credit risk for each class of financial instruments is the carrying amount of the financial assets recognized in the statement of financial position.

The credit risk from customer receivables is recorded and monitored on an ongoing basis. Responsibilities and duties relating to credit risks are governed by an internal directive. This mainly concerns the stipulation of payment terms, fixing of credit limits, release of deliveries, and receivables monitoring.

The credit risk for trade receivables is reduced by processing invoices with the corresponding credit notes in a single work step; the net amount is reported in the statement of financial position. This procedure is only performed if there is a legal right to offset and there is an intention to settle the receivable based on the net amount or to settle the receivable by offsetting against the corresponding liability. Moreover, trade receivables are partly secured by retention of title. For some trade receivables, collateral has been additionally provided in the form of guarantees, property liens, and mortgages.

The table below shows the remaining credit risk for trade receivables:

T.69

Figures in millions of euros

	2014	2013
Trade receivables (gross value)	9,173	8,086
Offsetting of credit notes	388	208
Trade receivables (carrying amount)	8,785	7,878
Financial guarantee contracts (received)	91	187
Remaining credit risk	**8,694**	**7,691**

The change in valuation allowances for specific risks as well as for the general credit risk is presented in the following table:

T.70

Figures in millions of euros

	Trade receivables	Loan receivables
At 1/1/2013	**453**	**5**
Change in the valuation allowance for specific risks	13	1
Change in the valuation allowance for the general credit risk	6	0
At 12/31/2013	**472**	**6**
Change in the valuation allowance for specific risks	–25	–1
Change in the valuation allowance for the general credit risk	21	0
At 12/31/2014	**468**	**5**

Apart from this, valuation allowances were recognized on a small scale on receivables from finance leases.

There is no indication at the end of the reporting period of any significant defaults of trade receivables or of other financial assets exposed to credit risks that are neither impaired nor past due.

The table below shows a maturity analysis of the unimpaired trade receivables:

T.71

Figures in millions of euros

	2014	2013
Trade receivables	8,785	7,878
of which not impaired and not past due at the end of the reporting period	1,056	342
of which not impaired and past due at the end of the reporting period	99	44
for less than one month	50	34
for more than one month, but less than three months	16	9
for more than three months	33	1

Of the loans and receivables from finance leases (both current and non-current), an amount of EUR 319 million (previous year: EUR 272 million) is not impaired and not past due. There are no loan receivables and receivables from finance leases (both current and non-current) which are not impaired but past due.

Derivative transactions are entered into in accordance with the German master agreement or the ISDA (International Swaps and Derivatives Association). These do not satisfy the set-off criteria of IAS 32, as netting is only enforceable in the case of insolvency.

The credit risk for derivatives that do not currently satisfy the set-off criteria of IAS 32 (offsetting only enforcable in the case of insolvency of the contracting party) is presented in the following table:

T.72

Figures in millions of euros	2014	2013
Derivatives with a positive market value (carrying amount)	110	73
Value of derivatives not netted in the statement of financial position	11	20
Remaining credit risk	**99**	**53**

Liquidity risks

The development of financial assets and liabilities is monitored on an ongoing basis. Internal directives regulate the duties and responsibilities of liquidity management and planning. The company has liquidity reserves in the form of highly liquid assets totaling EUR 6,589 million (previous year: EUR 4,392 million). In addition to that, there is a Euro commercial paper program with a volume of EUR 1,000 million and a U.S. commercial paper program with a volume of USD 2,000 million, neither of which had been drawn at the end of the reporting period. There is also a medium-term-note program with a volume of EUR 7,500 million, of which EUR 4,250 million had been drawn.

The liquidity risk is reduced by processing invoices for trade payables with the corresponding credit notes received in a single work step. This procedure is only performed if there is a legal right to offset and there is an intention to settle the liability based on the net amount or to settle the liability by offsetting against the corresponding receivable. Moreover, collateral is provided in the form of guarantees.

The table below shows the remaining liquidity risk for trade payables:

T.73

Figures in millions of euros	2014	2013
Trade payables (gross value)	3,987	3,304
Offsetting of credit notes	388	69
Trade payables (carrrying amount)	3,599	3,235
Financial guarantee contracts (granted)	7	228
Remaining liquidity risk	**3,592**	**3,007**

The liquidity risk for derivatives that do not currently satisfy the set-off criteria of IAS 32 (offsetting only enforcable in the case of insolvency) is presented in the following table:

T.74

Figures in millions of euros	2014	2013
Derivatives with a negative market value (carrying amount)	110	88
Value of derivatives not netted in the statement of financial position	11	20
Remaining liquidity risk	**99**	**68**

The undiscounted cash flows of the non-derivative and derivative financial liabilities are presented in the tables below:

T.75

Figures in millions of euros

	Carrying amount	Undiscounted cash flows					
	2014	2015	2016	2017	2018	2019	2020 ff.
Non-derivative financial liabilities							
Trade payables	3,599	3,599					
Bonds	4,223	136	866	786	71	365	2,980
Promissory loans	154	9	9	9	9	157	
Liabilities to banks	833	199	79	287	304		
Other financial liabilities	3		1	1	1		
Sundry financial liabilities	865	821	44	5	5	2	1
Finance lease obligations	18	6	6	5	3	2	8
Derivative financial liabilities							
Gross settlement	68						
Cash outflows		2,866	89	1	1	1	
Cash inflows		2,800	87				
Net settlement	42						
Cash outflows		29	13				

T.76

Figures in millions of euros

	Carrying amount	Undiscounted cash flows					
	2013	2014	2015	2016	2017	2018	2019 ff.
Non-derivative financial liabilities							
Trade payables	3,235	3,235					
Bonds	3,233	115	115	845	765	50	2,121
Promissory loans	500	357	9	9	9	9	157
Liabilities to banks	790	193	17	76	256	304	
Other financial liabilities	18	16	1	1	1		
Sundry financial liabilities	922	852	55	17	3	1	3
Finance lease obligations	16	7	3	3	2	2	8
Derivative financial liabilities							
Gross settlement	59						
Cash outflows		2,537	212	26	1	1	2
Cash inflows		2,499	169	24			1
Net settlement	29						
Cash outflows		25	4				

The undiscounted cash flows contain interest and principal payments. All on-call financial liabilities are allocated to the earliest possible period. The variable interest payments were determined using the last interest rate determined before the respective balance sheet date.

27 Related parties disclosures

As shareholder, Robert Bosch Industrietreuhand KG exercises majority voting rights at Robert Bosch GmbH. In addition, Robert Bosch Industrietreuhand KG is accountable for the internal audit of the Bosch Group. The costs incurred for this of EUR 13 million (previous year: EUR 12 million) were borne by Robert Bosch GmbH.

A part of the pension obligations and funds has been outsourced to Bosch Pensionsfonds AG. Robert Bosch GmbH is the sole shareholder of Bosch Pensionsfonds AG. Bosch Hilfe e.V. provides assistance to associates of co-owners in emergencies (emergency assistance). Bosch Hilfe e.V. is co-owned by Robert Bosch GmbH, Stuttgart, Germany, Robert Bosch Car Multimedia Holding GmbH, Hildesheim, Germany, and Robert Bosch Elektronik GmbH, Salzgitter, Germany. A part of the asset portfolio of Bosch Hilfe e.V. consists of its ownership in Robert Bosch Wohnungsgesellschaft mbH, Stuttgart, Germany, which builds and rents property for Bosch associates.

Robert Bosch Stiftung GmbH, Stuttgart, is the tenant of several properties belonging to Robert Bosch GmbH, Stuttgart.

Sales, receivables, and liabilities due to and from related parties

T.77

Figures in millions of euros

	Sales		Receivables		Liabilities	
	2014	2013	2014	2013	2014	2013
Weifu High Technology Co., Ltd., China		5		3	10	6
Knorr-Bremse Systeme für Nutzfahrzeuge GmbH, Germany	40	44	6	9	1	
SupplyOn AG, Germany						2
Oleodinamica Gambini S.r.l., Italy	3	3	1	1		
Johnson Controls Autobatterie GmbH & Co. KGaA, Germany	1	5			1	
Akebono Brake Industry Co., Ltd., Japan					1	1
Loos Centrum Sp.z o.o., Poland		3				
Rotzinger AG, Switzerland			3	3		2
North America Fuel Systems Remanufacturing LLC, USA	4	3				

All transactions with related parties were at arm's length.

Total remuneration of management in key positions
The members of management in key positions are the general partners of Robert Bosch Industrietreuhand KG, the members of the supervisory board, and the members of the board of management of Robert Bosch GmbH.

The total remuneration of members of management in key positions totals EUR 27 million in the fiscal year 2014 (previous year: EUR 30 million) and breaks down as follows:

T.78

Figures in millions of euros	2014	2013
Short-term benefits	18	18
Post-employment benefits	6	10
Other long-term benefits	3	2

Share-based payments are not made.

There are no provisions (valuation allowances) for doubtful debts due from key management personnel. Moreover, no expenses were incurred for uncollectible or doubtful receivables.

The Bosch Group pays other related parties compensation totaling EUR 0.6 million (prior year: 0.5 million) for various services, mainly consulting activities. At the end of the fiscal year there were neither receivables nor liabilities from these business transactions. Guarantees have neither been given nor received.

28 Additional disclosures pursuant to Sec. 315a HGB

Declaration of compliance with the German Corporate Governance Code
The declaration of compliance required by Sec. 161 AktG ["Aktiengesetz": German Stock Corporations Act] for the listed company aleo solar AG i.L., Prenzlau, Germany, which was included in the consolidated financial statements of the Bosch Group for the first time in the fiscal year 2009, was issued by the board of management and supervisory board of aleo solar AG i.L., and is publicly accessible on the internet site of aleo solar AG i.L.

Remuneration of members of the board of management and supervisory board
The total remuneration of the members of the board of management (including provisions) comes to EUR 16 million in the fiscal year 2014 (previous year: EUR 16 million), and that of the former members of the board of management and their dependants to EUR 15 million (previous year: EUR 20 million). The remuneration of the members of the supervisory board comes to approximately EUR 2 million. An amount of EUR 169 million (previous year: EUR 165 million) has been accrued at Robert Bosch GmbH for pension obligations to former members of the board of management and their surviving dependants.

Headcount

T.79

	Annual average 2014	Annual average 2013
EU countries	158,276	160,557
Rest of Europe	14,630	14,091
Americas	33,714	32,988
Asia, Africa, Australia	79,464	72,103
	286,084	**279,739**

Auditor's fees

The fees of the group auditor for audit and advisory services in Germany amount to:

T.80

Figures in millions of euros

	2014	2013
Fees for		
Audit services	4.1	4.1
Audit-related services	0.1	0.1
Tax advisory services	1.6	1.5
Other services	2.6	2.3

29 Events after the reporting date

In January 2015, Robert Bosch GmbH executed the following transactions: acquisition of the 50 percent interest of Siemens AG, Munich, Germany, in BSH Bosch und Siemens Hausgeräte GmbH, Munich, Germany, acquisition of the 50 percent interest of ZF Friedrichshafen GmbH, Friedrichshafen, Germany, in ZF Lenksysteme GmbH, Schwäbisch Gmünd, Germany, and acquisition of 100 percent of the shares in Climatec, LLC, Phoenix, AZ, USA. Further disclosures on these acquisitions are presented in the "Business combinations" chapter.

List of shareholdings of the Bosch Group as of December 31, 2014

1 Consolidated group

T.81

	Company name	Registered office	Percentage share of capital
Germany	Robert Bosch GmbH	Stuttgart	
	aleo solar AG i. L.	Prenzlau	95.5
	AS Abwicklung und Solar-Service Deutschland GmbH i. L.	Oldenburg	100.0
	AS Abwicklung Dritte Produktion GmbH i. L.	Oldenburg	100.0
	Ampack GmbH	Königsbrunn	100.0 [1]
	Beissbarth GmbH	Munich	100.0 [1, 2]
	Bosch Access Systems GmbH	Würselen	100.0 [1]
	Bosch Automotive Service Solutions GmbH	Pollenfeld	100.0 [1]
	Bosch Communication Center Magdeburg GmbH	Magdeburg	100.0 [1]
	Bosch Connected Devices and Solutions GmbH	Reutlingen	100.0 [1]
	Bosch Emission Systems GmbH & Co. KG	Stuttgart	100.0 [3]
	Bosch Energy and Building Solutions GmbH	Ditzingen	100.0 [1]
	Bosch Engineering GmbH	Abstatt	100.0 [1]
	Bosch Engineering Holding GmbH	Abstatt	100.0 [1, 2]
	Bosch Financial Software GmbH	Immenstaad	100.0
	Bosch Healthcare Solutions GmbH	Waiblingen	100.0 [1]
	Bosch Industriekessel GmbH	Gunzenhausen	100.0 [1]
	Bosch KWK Systeme GmbH	Lollar	100.0 [1]
	Bosch Packaging Systems GmbH	Remshalden	100.0 [1]
	Bosch Pensionsgesellschaft mbH	Stuttgart	100.0 [1]
	Bosch Power Tec GmbH	Hamburg	100.0
	Bosch Rexroth AG	Stuttgart	100.0 [1, 2]
	Bosch Sensortec GmbH	Kusterdingen	100.0 [1]
	Bosch Sicherheitssysteme Engineering GmbH	Nuremberg	100.0 [1]
	Bosch Sicherheitssysteme GmbH	Stuttgart	100.0 [1, 2]
	Bosch Sicherheitssysteme Montage und Service GmbH	Weimar	100.0 [1]
	Bosch Silicon Trading GmbH	Erfurt	100.0
	Bosch Software Innovations GmbH	Berlin	100.0 [1]
	Bosch Solar CISTech GmbH	Brandenburg/ Havel	100.0 [1]
	Bosch Solar Energy AG	Erfurt	100.0 [1, 2]
	Bosch Solar Operations GmbH	Erfurt	100.0 [1]
	Bosch Solar Thin Film GmbH	Erfurt	100.0 [1]
	Bosch Solarthermie GmbH	Wettringen	100.0 [1]

	Company name	Registered office	Percentage share of capital
	Bosch Technology Licensing Administration GmbH	Gerlingen	100.0
	Bosch Telecom Holding GmbH	Stuttgart	100.0 [1, 2]
	Bosch Thermotechnik GmbH	Wetzlar	100.0 [1, 2]
	Bosch Thermotechnik Vermögensverwaltung 1 GmbH	Wetzlar	100.0 [1]
	Buderus Guss GmbH	Breidenbach	100.0 [1]
	Buderus Immobilien GmbH	Wetzlar	96.0 [1]
	Elektra-Versicherungsvermittlungs-GmbH	Frankfurt	100.0 [1]
	ETAS GmbH	Stuttgart	100.0 [1, 2]
	EVI Audio GmbH	Straubing	100.0 [1]
	Hawera Probst GmbH	Ravensburg	100.0 [1]
	Holger Christiansen Deutschland GmbH	Wilnsdorf	100.0 [1]
	Hüttlin GmbH	Schopfheim	100.0 [1]
	Landau Electronic GmbH	Mörfelden-Walldorf	100.0 [1]
	Matra-Werke GmbH	Hainburg	100.0 [1]
	Moehwald GmbH	Homburg/Saar	100.0 [1]
	Pharmatec GmbH	Dresden	100.0 [1]
	Pollux Beteiligungsgesellschaft mbH	Stuttgart	90.0
	Robert Bosch Battery Systems GmbH	Stuttgart	100.0 [1]
	Robert Bosch Car Multimedia GmbH	Hildesheim	100.0 [1]
	Robert Bosch Car Multimedia Holding GmbH	Hildesheim	100.0 [1, 2]
	Robert Bosch Elektronik GmbH	Salzgitter	100.0 [1]
	Robert Bosch Elektrowerkzeuge GmbH	Sebnitz	100.0 [1]
	Robert Bosch Fahrzeugelektrik Eisenach GmbH	Eisenach	100.0 [1]
	Robert Bosch Fünfte Vermögensverwaltungsgesellschaft mbH	Gerlingen	100.0 [1]
	Robert Bosch Immobilienverwaltungs GmbH & Co. KG	Stuttgart	100.0
	Robert Bosch Lizenzverwaltungsgesellschaft mbH	Holzkirchen	100.0
	Robert Bosch Risk and Insurance Management GmbH	Stuttgart	100.0 [1]
	Robert Bosch Venture Capital GmbH	Gerlingen	100.0 [1]
	Robert Bosch Vierte Vermögensverwaltungsgesellschaft mbH	Gerlingen	100.0 [1]
	Robert Bosch Zweite Vermögensverwaltungsgesellschaft mbH	Stuttgart	100.0 [1]
	sia Abrasives Deutschland GmbH	Solingen	100.0
	Sieger Heizsysteme GmbH	Siegen	100.0 [1]
	UC Vermögensverwaltung GmbH	Stuttgart	100.0 [1]

[1] These companies make use of the exemption provided for in Sec. 264 (3) HGB.
[2] These companies make use of the exemption provided for in Sec. 291 (2) HGB.
[3] The company makes use of the exemption provided for in Sec. 264b HGB.

	Company name	Registered office	Percentage share of capital
Europe			
Austria	Bosch Industriekessel Austria GmbH	Bischofshofen	100.0
	Bosch Rexroth GmbH	Pasching	100.0
	Robert Bosch AG	Vienna	100.0
	Robert Bosch Holding Austria GmbH	Vienna	100.0
	SBM Schoeller-Bleckmann-Medizintechnik GmbH	Ternitz	100.0
Belgium	Bosch Rexroth N.V.	Brussels	100.0
	Bosch Thermotechnology N.V. / S.A.	Leuven-Heverlee	100.0
	Robert Bosch Produktie N.V.	Tienen	100.0
	Robert Bosch S.A.	Anderlecht (Brussels)	100.0
	sia Abrasives Belgium N.V. / S.A.	Mollem	100.0
Czech Republic	Bosch Diesel s.r.o.	Jihlava	100.0
	Bosch Rexroth spol. s.r.o.	Brno	100.0
	Bosch Thermotechnika s.r.o.	Krnov	100.0
	Robert Bosch odbytova s.r.o.	Prague	100.0
	Robert Bosch, spol. s.r.o.	České Budějovice	100.0
Denmark	Bosch Rexroth A/S	Hvidovre	100.0
	Holger Christiansen A/S	Esbjerg	100.0
	Robert Bosch A/S	Ballerup	100.0
Finland	Bosch Rexroth Oy	Vantaa	100.0
	Robert Bosch Oy	Vantaa	100.0
France	Bosch Automotive Service Solutions SARL	La Ferté-Bernard	100.0
	Bosch Centre de Service S.A.S.	Forbach	100.0
	Bosch Packaging Services S.a.r.l.	Hoenheim	100.0
	Bosch Rexroth DSI S.A.S.	Vénissieux	100.0
	Bosch Rexroth S.A.S.	Vénissieux	100.0
	Bosch Security Systems S.A.S. France	Clamart	100.0
	Bosch Thermotechnologie S.A.S.	Saint Thégonnec	100.0
	E.L.M. Leblanc S.A.S.U.	Drancy	100.0
	Holger Christiansen France SAS	Olivet	100.0
	Robert Bosch (France) S.A.S.	Saint-Ouen (Paris)	100.0
	sia Abrasives France S.a.r.l.	Roissy Ch.-de-Gaulle	100.0
Greece	Robert Bosch S.A.	Koropi (Athens)	100.0
Hungary	Bosch Rexroth Kft.	Budapest	100.0

	Company name	Registered office	Percentage share of capital
	Robert Bosch Elektronika Gyártó Kft.	Hatvan	100.0
	Robert Bosch Energy and Body Systems Kft.	Miskolc	100.0
	Robert Bosch Kft.	Budapest	100.0
	Robert Bosch Power Tool Elektromos Szerszámgyártó Kft.	Miskolc	100.0
Ireland	Robert Bosch Ireland Ltd.	Portlaoise	100.0
Italy	ARESI S.p.A.	Brembate	100.0
	AS Solar Service Italia S.r.l. i.l.	Treviso	100.0
	Bosch Automotive Service Solutions S.R.L.	Parma	100.0
	Bosch Energy and Building Solutions Italy S.r.l.	Cinisello Balsamo	100.0
	Bosch Rexroth Oil Control S.p.A.	Milan	100.0
	Bosch Rexroth S.p.A.	Cernusco	100.0
	Bosch Security Systems S.p.A.	Milan	100.0
	Centro Studi Componenti per Veicoli S.p.A.	Modugno (Bari)	100.0
	Freud S.p.A.	Brugherio	100.0
	Holger Christiansen Italia S.r.l.	Bologna	100.0
	ROBERT BOSCH S.p.A. Società Unipersonale	Milan	100.0
	SICAM S.r.l.	Correggio	100.0
	Tecnologie Diesel e Sistemi Frenanti S.p.A.	Modugno (Bari)	100.0
	VHIT S.p.A.	Offanengo	100.0
Luxembourg	Ferroknepper Buderus S.A.	Esch-sur-Alzette	100.0
Malta	Robert Bosch Finance Malta, Ltd.	Valletta	100.0
	Robert Bosch Holding Malta, Ltd.	Valletta	100.0
	Robert Bosch IC Financing Malta Limited	St. Julians	100.0
Netherlands	Bosch Communications Center B.V.	Nimwegen	100.0
	Bosch Packaging Technology B.V.	Schiedam	100.0
	Bosch Rexroth B.V.	Boxtel	100.0
	Bosch Security Systems B.V.	Eindhoven	100.0
	Bosch Thermotechniek B.V.	Deventer	100.0
	Bosch Transmission Technology B.V.	Tilburg	100.0
	Nefit Vastgoed B.V.	Deventer	100.0
	Robert Bosch B.V.	Boxtel	100.0
	Robert Bosch Holding Nederland B.V.	Boxtel	100.0
	Robert Bosch Investment Nederland B.V.	Boxtel	100.0
	Robert Bosch Licensing Administration C.V.	Boxtel	100.0
	Robert Bosch Packaging Technology B.V.	Weert	100.0
	Skil Europe B.V.	Breda	100.0
	Telex Holding Germany B.V.	Boxtel	100.0

	Company name	Registered office	Percentage share of capital
	Telex Holding Hong Kong B.V.	Boxtel	100.0
	Telex Holding Singapore B.V.	Boxtel	100.0
Norway	Bosch Rexroth A/S	Ski	100.0
	Robert Bosch A/S	Ski	100.0
Poland	Bosch Rexroth Sp. z o.o.	Pruszkow	100.0
	ROBERT BOSCH Sp. z o.o.	Warsaw	100.0
Portugal	Bosch Car Multimedia Portugal, S.A.	Braga	100.0
	Bosch Security Systems, S.A.	Ovar	100.0
	Bosch Termotechnologia, S.A.	Aveiro	100.0
	Robert Bosch Portugal, SGPS, S.A.	Lisbon	100.0
	Robert Bosch, S.A.	Lisbon	100.0
Romania	Bosch Communication Center S.R.L.	Timişoara	100.0
	Bosch Rexroth S.R.L.	Blaj	100.0
	ROBERT BOSCH S.R.L.	Bucharest	100.0
Russian Federation	OOO “Construction & investments”	Khimki	100.0
	OOO Bosch Power Tools	Engels	100.0
	OOO Bosch Rexroth	Moscow	100.0
	OOO Bosch Thermotechnik	Moscow	99.0
	OOO Robert Bosch	Moscow	100.0
	OOO Robert Bosch Saratow	Engels	100.0
Serbia	Robert Bosch DOO	Belgrade	100.0
Slovakia	Holger Christiansen Produktion Slovakia s.r.o.	Bernolákovo	100.0
Slovenia	Indramat elektromotorji d.o.o.	Škofja Loka	100.0
Spain	aleo solar distribución España S.L.	Barcelona	100.0
	aleo solar España S.L.	Barcelona	100.0
	Bosch Rexroth, S.L.	Madrid	100.0
	Bosch Security Systems S.A.	Madrid	100.0
	BOSCH SISTEMAS DE FRENADO, S.L.U.	Madrid	100.0
	ROBERT BOSCH ESPAÑA FÁBRICA CASTELLET S.A.	Castellet	100.0
	ROBERT BOSCH ESPAÑA FÁBRICA MADRID S.A.	Madrid	100.0
	ROBERT BOSCH ESPAÑA FÁBRICA TRETO S.A.	Treto	100.0
	Robert Bosch España Gasoline Systems S.A.	Aranjuez	100.0

	Company name	Registered office	Percentage share of capital
	ROBERT BOSCH ESPAÑA, S.L.U.	Madrid	100.0
	sia Abrasives Espana S.A.U.	Madrid	100.0
Sweden	Bosch Rexroth Mellansel AB	Mellansel	100.0
	Bosch Rexroth Teknik AB	Stockholm	100.0
	Bosch Thermoteknik AB	Tranås	100.0
	Holger Christiansen Sverige AB	Örebro	100.0
	Robert Bosch AB	Kista	100.0
Switzerland	Bosch Packaging Services AG	Beringen	100.0
	Bosch Packaging Systems AG	Beringen	100.0
	Bosch Packaging Technology SA	Romanel-sur-Lausanne	100.0
	Bosch Pouch Systems AG	Beringen	100.0
	Bosch Rexroth Schweiz AG	Buttikon	100.0
	Buderus Heiztechnik AG	Pratteln	100.0
	Robert Bosch AG	Zuchwil	100.0
	Robert Bosch Internationale Beteiligungen AG	Zuchwil	100.0
	Sapal S.A.	Ecublens	100.0
	Scintilla AG	Solothurn	100.0
	sia Abrasives Industries AG	Frauenfeld	100.0
Turkey	Bosch Fren Sistemleri Sanayi ve Ticaret A.S.	Bursa	84.5
	Bosch Rexroth Otomasyon Sanayi ve Ticaret A.S.	Bursa	100.0
	Bosch Sanayi ve Ticaret A.S.	Bursa	100.0
	Bosch Termoteknik Sanayi ve Ticaret A.S.	Manisa	100.0
Ukraine	Holger Christiansen Production Ukraine	Krakovets	100.0
United Kingdom	Bosch Automotive Service Solutions Ltd.	Brixworth	100.0
	Bosch Lawn and Garden Ltd.	Stowmarket	100.0
	Bosch Packaging Technology Limited	Derby	100.0
	Bosch Rexroth Ltd.	St. Neots	100.0
	Bosch Security Systems Ltd.	Denham	100.0
	Bosch Thermotechnology Ltd.	Worcester	100.0
	Hägglunds Drives Limited	Wakefield	100.0
	Holger Christiansen UK Ltd.	Nottingham	100.0
	Robert Bosch Investment Ltd.	Warndon, Worcester	100.0
	Robert Bosch Ltd.	Denham	100.0
	Robert Bosch UK Holdings Limited	Denham	100.0
	sia Abrafoam Ltd.	Alfreton	100.0

	Company name	Registered office	Percentage share of capital
	sia Abrasives (G.B.) Ltd.	Greetland	100.0
	sia Abrasives Holding Ltd.	Greetland	100.0
	sia Fibral Ltd.	Greetland	100.0
	Worcester Group plc	Warndon, Worcester	100.0
Americas			
Argentina	Bosch Rexroth S.A.I.C.	Buenos Aires	100.0
	Robert Bosch Argentina Industrial S.A.	Buenos Aires	100.0
Brazil	Bosch Rexroth Ltda.	Atibaia-SP	100.0
	Robert Bosch Centro de Comunicação Limitada	Campinas	100.0
	Robert Bosch Ltda.	Campinas	100.0
	Robert Bosch Tecnologia de Embalagem Ltda.	Alphaville	100.0
	Bosch Solutions Serviços Automotivos Ltda.	São Paulo	100.0
	sia Abrasivos Industriais Ltda.	São José dos Pinhais	100.0
Canada	Bosch Rexroth Canada Corporation	Welland, ON	100.0
	Extreme CCTV Inc.	Burnaby, BC	100.0
	Freud Canada Inc.	Mississauga, ON	100.0
	ROBERT BOSCH INC.	Mississauga, ON	100.0
Chile	Robert Bosch S. A.	Santiago de Chile	100.0
Mexico	Bosch Rexroth, S.A. de C.V.	Mexico City	100.0
	Frenados Mexicanos, S.A. de C.V.	Aguascalientes	100.0
	Robert Bosch México Sistemas de Frenos, S. de R.L. de C.V.	Juarez	100.0
	Robert Bosch México Holding, S.A. de C.V.	Mexico City	100.0
	Robert Bosch México S.A. de C.V.	Mexico City	100.0
	Robert Bosch México Sistemas Automotrices, S.A. de C.V.	San Luis Potosi	100.0
	Robert Bosch Sistemas Automotrices, S.A. de C.V.	Juarez	100.0
	Robert Bosch Tool de México, S.A. de C.V.	Mexicali	100.0
	Robert Bosch, S. de R.L. de C.V.	Toluca	100.0
	Saguaro Electronica, S.A. de C.V.	Hermosillo	100.0
United States	AS Solar Service NA, Inc.	Westminster, CO	100.0
	Bosch Automotive Service Solutions Holdings, Inc.	Wilmington, DE	100.0
	Bosch Automotive Service Solutions LLC	Warren, MI	100.0
	Bosch Brake Components LLC	Broadview, IL	100.0
	Bosch Packaging Services Inc.	Raleigh, NC	100.0

	Company name	Registered office	Percentage share of capital
	Bosch Packaging Technology, Inc.	New Richmond, WI	100.0
	Bosch Rexroth Corporation	Lehigh Valley, PA	100.0
	Bosch Security Systems Inc.	Burnsville, MN	100.0
	Bosch Solar Energy Corp.	Detroit, MI	100.0
	Bosch Thermotechnology Corp.	Londonderry, NH	100.0
	BSE PV LLC	Palo Alto, CA	100.0
	Compu-Spread Corporation	Delano, MN	100.0
	ETAS Inc.	Ann Arbor, MI	100.0
	FHP Manufacturing Company	Fort Lauderdale, FL	57.0
	Freud America Inc.	High Point, NC	100.0
	Ovonic Energy Products, Inc.	Orion, MI	100.0
	Robert Bosch Battery Systems LLC	Orion, MI	100.0
	Robert Bosch Finance LLC	Broadview, IL	100.0
	ROBERT BOSCH FUEL SYSTEMS LLC	Kentwood, MI	100.0
	Robert Bosch Healthcare Systems, Inc.	Farmington Hills, MI	100.0
	Robert Bosch LLC	Broadview, IL	100.0
	Robert Bosch North America Corporation	Broadview, IL	100.0
	Robert Bosch Packaging Technology Inc.	Minneapolis, MN	100.0
	Robert Bosch Tool Corporation	Mt. Prospect, IL	100.0
	sia Abrasives, Inc. USA	Charlotte, NC	100.0
	Vetronix Corporation	Santa Barbara, CA	100.0
Venezuela	Inversiones 421.10 (Venezuela Holding)	Caracas	100.0
	Skil Venezolana SRL	Caracas	100.0
Asia			
China	AUTOBOSS Tech, Inc.	Shenzhen	100.0
	Bosch (Ningbo) e-scooter Motor Co., Ltd.	Ningbo	60.0
	Bosch (Shanghai) Security Systems Ltd.	Shanghai	100.0
	Bosch (Zhuhai) Security Systems Co., Ltd.	Zhuhai	100.0
	Bosch Automotive Components (Changchun) Co., Ltd.	Changchun	55.0
	Bosch Automotive Diagnostics Equipment (Shenzhen) Ltd.	Shenzhen	100.0
	Bosch Automotive Diesel Systems Co., Ltd.	Wuxi	66.0
	Bosch Automotive Products (Changsha) Co., Ltd.	Changsha	100.0
	Bosch Automotive Products (Chengdu) Co., Ltd.	Chengdu	100.0
	Bosch Automotive Products (Nanjing) Co., Ltd.	Nanjing	100.0
	Bosch Automotive Products (Suzhou) Co., Ltd.	Suzhou	100.0
	Bosch Automotive Service Solutions (Suzhou) Co., Ltd.	Suzhou	100.0
	Bosch Car Multimedia (Wuhu) Co., Ltd.	Wuhu	60.0
	Bosch (China) Investment Ltd.	Shanghai	100.0
	Bosch Inspection Technology (Shanghai) Co., Ltd.	Shanghai	100.0
	Bosch Laser Equipment (Dongguan) Limited	Dongguan	100.0

	Company name	Registered office	Percentage share of capital
	Bosch Packaging Technology (Chengdu) Co., Ltd.	Chengdu	100.0
	Bosch Packaging Technology (Hangzhou) Co., Ltd.	Hangzhou	100.0
	Bosch Power Tools (China) Ltd.	Hangzhou	100.0
	Bosch Rexroth (Beijing) Hydraulic Co., Ltd.	Beijing	100.0
	Bosch Rexroth (Changzhou) Co., Ltd.	Changzhou	100.0
	Bosch Rexroth (China) Ltd.	Hongkong	100.0
	Bosch Rexroth (Xi'an) Electric Drives and Controls Co., Ltd.	Xi'an	100.0
	Bosch Security Systems Ltd.	Hong Kong	100.0
	Bosch Thermotechnology (Beijing) Co., Ltd.	Beijing	100.0
	Bosch Trading (Shanghai) Co., Ltd.	Shanghai	100.0
	ETAS Automotive Technology (Shanghai) Co., Ltd.	Shanghai	100.0
	Hägglunds Drives Shanghai Ltd.	Shanghai	100.0
	Robert Bosch Company Ltd.	Hong Kong	100.0
	Shanghai Bosch Rexroth Hydraulics & Automation Ltd.	Shanghai	100.0
	Taixiang Vehicle Replace Parts (Shenzhen) Co., Ltd.	Shenzhen	100.0
	United Automotive Electronic Systems Co., Ltd.	Shanghai	51.0
India	Bosch Automotive Electronics India Private Ltd.	Bangalore	100.0
	Bosch Chassis Systems India Ltd.	Pune	97.9
	Bosch Electrical Drives India Private Ltd.	Chennai	89.2
	Bosch Ltd.	Bangalore	71.2
	Bosch Rexroth (India) Ltd.	Ahmedabad	96.4
	Robert Bosch Engineering and Business Solutions Ltd.	Bangalore	100.0
Indonesia	P.T. Robert Bosch	Jakarta	100.0
Japan	Bosch Automotive Service Solutions Corporation	Tokyo	100.0
	Bosch Corporation	Tokyo	100.0
	Bosch Packaging Technology K.K.	Tokyo	100.0
	Bosch Rexroth Corporation	Tsuchiura-shi	99.9
	ETAS K.K.	Yokohama	100.0
	Bosch Security Systems Ltd.	Tokyo	100.0
	FA Niigata Co., Ltd.	Niigata	100.0
	Fuji Aitac Co., Ltd.	Gunma	100.0
	Gunma Seiki Co., Ltd.	Gunma	100.0
	Nippon Injector Corporation	Odawara	50.0
Korea	Bosch Electrical Drives Co., Ltd.	Buyong	100.0
	Bosch Rexroth Korea Ltd.	Busan	100.0
	Robert Bosch Korea Diesel Ltd.	Daejeon	100.0
	Robert Bosch Korea Ltd.	Daejeon	100.0

	Company name	Registered office	Percentage share of capital
Malaysia	Bosch Power Tools Engineering Sdn. Bhd.	Penang	100.0
	Bosch Rexroth Sdn. Bhd.	Shah Alam	100.0
	Bosch Solar Energy Malaysia Sdn. Bhd.	Penang	100.0
	ROBERT BOSCH (MALAYSIA) SDN. BHD.	Penang	100.0
	ROBERT BOSCH POWER TOOLS SDN. BHD.	Penang	100.0
	Robert Bosch Sdn. Bhd.	Kuala Lumpur	100.0
Philippines	Bosch Service Solutions, Inc.	Manila	100.0
Singapore	BOSCH PACKAGING TECHNOLOGY (SINGAPORE) PTE. LTD.	Singapore	100.0
	Bosch Rexroth Pte. Ltd.	Singapore	100.0
	Robert Bosch (South East Asia) Pte. Ltd.	Singapore	100.0
	Robert Bosch Security Solutions Pte.	Singapore	100.0
Taiwan	Bosch Rexroth Co. Ltd.	Taipei	100.0
	Robert Bosch Taiwan Co., Ltd.	Taipei	100.0
	Unipoint Electric MFG Co., Ltd.	Taipei	100.0
Thailand	Bosch Automotive Thailand Co. Ltd.	Rayong	87.9
	Robert Bosch Ltd.	Bangkok	100.0
	Robert Bosch Automotive Technologies (Thailand) Co., Ltd.	Rayong	100.0
United Arab Emirates	Robert Bosch Middle East FZE	Dubai	100.0
Vietnam	Bosch Vietnam Co., Ltd.	Dong Nai Province	100.0
Rest of world			
Australia	Abrasives Products Pty. Ltd.	Rowville	100.0
	aleo solar Australia Pty. Ltd.	Thornbury	100.0
	Australian Industrial Abrasives Pty. Ltd.	Rowville	100.0
	Bosch Automotive Service Solutions Pty. Ltd.	Melbourne	100.0
	Bosch Rexroth Pty. Ltd.	Kings Park	100.0
	Bosch Security Systems Pty. Ltd.	Sydney	100.0
	Robert Bosch (Australia) Pty. Ltd.	Clayton	100.0
	sia Abrasives Australasia Holding Pty. Ltd.	Rowville	100.0
	sia Abrasives Australia Pty. Ltd.	Rowville	100.0
New Zealand	Bosch Security Systems Ltd.	Auckland	100.0
South Africa	Robert Bosch (Pty.) Ltd.	Brits	100.0

2 Investments measured using the equity method

	Company name	Registered office	Percentage share of capital
Germany	Bosch Mahle Turbo Systems GmbH & Co. KG	Stuttgart	50.0
	BSH Bosch und Siemens Hausgeräte GmbH	Munich	50.0
	EM-motive GmbH	Hildesheim	50.0
	ZF Lenksysteme GmbH	Schwäbisch Gmünd	50.0
South Africa	Hytec Holdings (Pty.) Ltd.	Johannesburg	50.0
United States	Associated Fuel Pump Systems Corporation	Anderson, SC	50.0

3 Investments measured at amortized cost

	Company name	Registered office	Percentage share of capital
Germany	AIG Planungs- und Ingenieurgesellschaft mbH	Stuttgart	100.0
	Alltrucks GmbH & Co. KG	Munich	33.3
	Asanetwork GmbH	Willstätt	23.3
	BD Kompressor GmbH	Lollar	100.0
	BD Kompressor Holding GmbH & Co. KG	Lollar	100.0
	BD Kompressor Management GmbH	Lollar	100.0
	Bosch Emission Systems Verwaltungs-GmbH	Stuttgart	100.0
	Bosch Mahle Turbo Systems Verwaltungs GmbH	Stuttgart	50.0
	Bosch Management Support GmbH	Leonberg	100.0
	Bosch Pensionsfonds AG	Stuttgart	100.0
	Bosch Rexroth Interlit GmbH	Joachimsthal	100.0
	Bosch Rexroth Monitoring Systems GmbH	Dresden	100.0
	Bosch SoftTec GmbH	Hildesheim	100.0
	BS Systems GmbH & Co. KG	Zusmarshausen	50.0
	CDE - Packaging GmbH	Glauburg-Stockheim	49.0
	ECP Energiecontracting GmbH	Heidelberg	81.0
	Energiespeicher Nord GmbH & Co. KG	Braderup	45.0
	Energiespeicher Nord Verwaltungs GmbH	Braderup	45.0
	escrypt GmbH Embedded Security	Bochum	100.0
	GFI Gesellschaft für Infrastrukturdienste mbH	Reutlingen	100.0
	Heliatek GmbH	Dresden	20.2
	Hubject GmbH	Berlin	16.7
	JCB Management GmbH	Hanover	20.0

	Company name	Registered office	Percentage share of capital
	Johnson Controls Autobatterie GmbH & Co. KGaA	Hanover	20.0
	Knorr-Bremse Systeme für Nutzfahrzeuge GmbH	Munich	20.0
	Koller + Schwemmer GmbH	Nuremberg	100.0
	Lithium Energy and Power GmbH & Co. KG	Stuttgart	50.0
	Makat Candy Technology GmbH	Dierdorf	100.0
	Mobility Media GmbH	Berlin	100.0
	part GmbH	Bad Urach	50.0
	Prüfzentrum Boxberg GmbH	Boxberg	100.0
	Robert Bosch Battery Solutions GmbH	Eisenach	100.0
	Robert Bosch Elektronik Thüringen GmbH	Arnstadt	100.0
	Robert Bosch Immobilien GmbH	Stuttgart	100.0
	Robert Bosch Start-Up GmbH	Stuttgart	100.0
	Robert Bosch Technical and Business Solutions GmbH	Schwieberdingen	100.0
	Service- und Betriebsgesellschaft Heidehof GmbH	Stuttgart	100.0
	SupplyOn AG	Hallbergmoos	42.1
	thermea. Energiesysteme GmbH	Freital	26.9
	Valicare GmbH	Frankfurt/Main	100.0
Europa			
Austria	Bosch General Aviation Technology GmbH	Vienna	100.0
	RobArt GmbH	Linz	22.0
Belarus	Robert Bosch OOO	Minsk	100.0
Belgium	EpiGaN NV	Leuven	22.0
Bulgaria	Robert Bosch EOOD	Sofia	100.0
Croatia	Robert Bosch d.o.o.	Zagreb	100.0
Denmark	Moeller & Devicon A/S	Sandved	100.0
	ScandiaPack ApS	Ballerup	24.2
Estonia	Robert Bosch OÜ	Tallinn	100.0
France	Bosch Packaging Technology SAS	Saint-Ouen (Paris)	100.0
	ETAS S.A.S.	Rungis	100.0
Georgia	Robert Bosch Ltd.	Tiflis	100.0

	Company name	Registered office	Percentage share of capital
Greece	Bosch Rexroth S.A.	Athens	100.0
Hungary	Bosch Electronic Service Kft.	Kecskemét	100.0
	Bosch Packaging Systems Kft.	Pécel	100.0
Italy	BARI SERVIZI INDUSTRIALI Società consortile a r.l.	Modugno	50.0
	Dana Rexroth Transmission Systems S.r.l.	Arco	50.0
	DECA SRL	Lugo	100.0
	Oleodinamica Gambini S.r.l.	Modena	20.0
Kazakhstan	TOO Robert Bosch	Almaty	100.0
Latvia	Robert Bosch SIA	Riga	100.0
Lithuania	UAB Robert Bosch	Vilnius	100.0
Netherlands	Bosch Thermotechnology Netherlands Holding B.V.	Boxtel	100.0
Poland	Loos Centrum Sp.z o.o.	Warsaw	26.0
Russian Federation	Bosch Heating Systems LLC	Engels	100.0
	Evroradiators LLC	Engels	100.0
	Robert Bosch Samara LLC	Chernovskiy	100.0
Slovakia	Robert Bosch spol. s.r.o.	Bratislava	100.0
	Valicare s.r.o.	Trencin	51.1
Slovenia	Robert Bosch d.o.o.	Ljubljana	100.0
Spain	Bosch Automotive Service Solutions S.A.	Guadalajara	100.0
Switzerland	Bosch Automotive Service Solutions AG	Kriens	100.0
	Rotzinger AG	Kaiseraugst	46.7
Ukraine	Robert Bosch Ltd.	Kiev	100.0
United Kingdom	aleo solar UK Ltd.	Denton Island, Newhaven	100.0
	Beissbarth UK Ltd.	Nottingham	100.0

	Company name	Registered office	Percentage share of capital
	ETAS Ltd.	York	100.0
	LAGTA Group Training Limited	Motherwell	100.0
	LAGTA Limited	Motherwell	100.0
	LCX Solar Limited	Shepperton	33.3
	Spore Holdings Ltd.	Daventry	100.0
	VL Churchill Ltd.	Daventry	100.0
Americas			
Brazil	Bosch Management Support Ltda.	Campinas	99.9
	Bosch Termotecnologia Ltda.	São Paulo	100.0
	Metapar Usinagem Ltda.	Curitiba-Paraná	100.0
Chile	Bosch Rexroth Chile S.p.A.	Santiago de Chile	100.0
	MD Hidráulica S.A.	Santiago de Chile	100.0
Columbia	Robert Bosch Ltda.	Bogotá	100.0
Ecuador	Robert Bosch Sociedad Anónima Ecuabosch	Guayaquil	100.0
Mexico	Bosch Automotive Service Solutions S.A. de C.V.	Mexico City	100.0
Panama	Robert Bosch Panama S.A.	Panama City	100.0
Peru	Robert Bosch S.A.C.	Lima	100.0
United States	Akustica Inc.	Pittsburgh, PA	100.0
	Bosch Energy Storage Solutions LLC	Palo Alto, CA	100.0
	Bosch Management Services Corporation	Wilmington, DE	100.0
	Bosch Software Innovations Corp.	Chicago, IL	100.0
	Escrypt Inc.	Ann Arbor, MI	100.0
	Industrial Pharmaceutical Resources, Inc.	Bartlett, IL	49.0
	North America Fuel Systems Remanufacturing LLC	Kentwood, MI	50.0
	PBR International USA Ltd.	Knoxville, TN	100.0
	Robert Bosch Asset Management I LLC	Wilmington, DE	100.0
	RoboToolz Inc.	Mountain View, CA	100.0
	SS Great Lakes LLC	Bridgeport, MI	100.0
Venezuela	Bosch Rexroth S.A.	Caracas	100.0
	Robert Bosch S.A.	Caracas	100.0

	Company name	Registered office	Percentage share of capital
Asia			
Bangladesh	Robert Bosch (Bangladesh) Ltd.	Dhaka	100.0
Cambodia	Robert Bosch (Cambodia) Co., Ltd.	Phnom Penh	100.0
China	avim solar production Co. Ltd.	Gaomi	50.0
	Bosch (Donghai) Automotive Test & Technology Center Co., Ltd.	Donghai	100.0
	Bosch (Hulunbeier) Automotive Test and Technology Centre Co., Ltd.	Yakeshi	100.0
	Bosch Automotive Technical Service (Beijing) Co., Ltd.	Beijing	100.0
	Bosch Thermotechnology (Shandong) Co., Ltd.	Zibo	100.0
	Bosch Thermotechnology (Shanghai) Co., Ltd.	Shanghai	100.0
	Bosch Thermotechnology (Wuhan) Co., Ltd.	Wuhan	100.0
	Dalian Rexroth Control Technology Ltd.	Dalian	60.0
	Freud International Trading (Shanghai) Co., Ltd.	Shanghai	100.0
	Guangzhou sia Abrasives Company Ltd.	Guangzhou	100.0
	Loos China Ltd.	Hong Kong	100.0
	Nanjing Bovon Power Tools Co.	Nanjing	50.0
	sia Abrasives Company Ltd.	Hong Kong	100.0
India	ETAS Automotive India Private Ltd.	Bangalore	100.0
	MHB Filter India Private Ltd.	Bangalore	100.0
	MIVIN Engineering Technologies Private Ltd.	Bangalore	100.0
	Precision Seals Manufacturing Ltd.	Pune	100.0
Indonesia	P.T. Bosch Rexroth	Jakarta	100.0
	P.T. Robert Bosch Automotive	Jakarta	100.0
Israel	Utilight Ltd.	Yavne	22.3
Japan	Advanced Driver Information Technology Corporation	Kariya-shi	50.0
	Bosch Engineering K.K.	Tokyo	100.0
	Daito Hydraulics Co., Ltd.	Nasu-gun	100.0
	Kanto Seiatsu Kogyo Co., Ltd.	Honjo	94.9
	Knorr-Bremse Commercial Vehicle Systems Japan, Ltd.	Tokyo	20.0
Korea	KB Wiper Systems Corporation	Sejong	100.0
	ETAS Korea Co., Ltd.	Seoul	100.0

	Company name	Registered office	Percentage share of capital
Malaysia	Pacific BBA (Malaysia) Sdn. Bhd.	Shah Alam, Selangor	100.0
	Robert Bosch (Penang) Sdn. Bhd.	Penang	100.0
Philippines	Robert Bosch Inc.	Manila	100.0
Thailand	FMP Distribution Ltd.	Rayong	50.1
	FMP Group (Thailand) Ltd.	Rayong	50.7
	Pacific BBA (Thailand) Ltd.	Bangkok	100.0
Vietnam	Robert Bosch Engineering and Business Solutions Vietnam Co. Ltd.	Ho Chi Minh City	100.0
Rest of world			
Australia	FMP Group (Australia) Pty. Ltd.	Ballarat	49.0
	Pacifica Group Pty. Ltd.	Melbourne	100.0
Egypt	Bosch Packaging Technology Ltd.	Cairo	100.0
	Robert Bosch Ltd.	Cairo	100.0
Kenya	Robert Bosch East Africa Ltd.	Nairobi	100.0
New Zealand	Bosch Rexroth Ltd.	Auckland	100.0
	Robert Bosch Ltd.	Auckland	100.0
Nigeria	Robert Bosch Limited	Lagos	100.0
South Africa	Hägglunds Drives South Africa (Pty.) Ltd.	Fourways	100.0

Stuttgart, March 10, 2015

Robert Bosch GmbH
The board of management

Auditor’s report

Independent Auditor's Report
To Robert Bosch Gesellschaft mit beschränkter Haftung, Stuttgart

Report on the Consolidated Financial Statements
We have audited the accompanying consolidated financial statements of Robert Bosch Gesellschaft mit beschränkter Haftung, Stuttgart, and its subsidiaries, which comprise the income statement, the statement of comprehensive income, the statement of financial position, the statement of changes in equity, the statement of cash flows and the notes to the consolidated financial statements for the business year from January 1, 2014 to December 31, 2014.

Managing Directors' Responsibility for the Consolidated Financial Statements

The Managing Directors of Robert Bosch Gesellschaft mit beschränkter Haftung are responsible for the preparation of the consolidated financial statements. This responsibility includes that these consolidated financial statements are prepared in accordance with International Financial Reporting Standards, as adopted by the EU, and the additional requirements of German commercial law pursuant to § (Article) 315a Abs. (paragraph) 1 HGB (“Handelsgesetzbuch”: German Commercial Code) and that these consolidated financial statements give a true and fair view of the net assets, financial position and results of operations of the group in accordance with these requirements. The Managing Directors are also responsible for the internal controls Management deems necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audit. We conducted our audit in accordance with § 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany) (IDW) and additionally observed the International Standards on Auditing (ISA) Accordingly, we are required to comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing audit procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The selection of audit procedures depends on the auditor's professional judgment. This includes the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In assessing those risks, the auditor considers the internal control system relevant to the entity's preparation of consolidated financial statements that give a true and fair view. The aim of this is to plan and perform audit procedures that are appropriate in the given circumstances, but not for the purpose of expressing an opinion on the effectiveness of the group's internal control system. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the Managing Directors, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Audit Opinion

According to § 322 Abs. 3 Satz (sentence) 1 HGB, we state that our audit of the consolidated financial statements has not led to any reservations.

In our opinion based on the findings of our audit, the consolidated financial statements comply, in all material respects, with IFRSs, as adopted by the EU, and the additional requirements of German commercial law pursuant to § 315a Abs. 1 HGB and give a true and fair view of the net assets and financial position of the Group as at December 31, 2014 as well as the results of operations for the business year then ended, in accordance with these requirements.

Report on the Group Management Report

We have audited the accompanying group management report of Robert Bosch Gesellschaft mit beschränkter Haftung for the business year from January 1, 2014 to December 31, 2014. The Managing Directors of Robert Bosch Gesellschaft mit beschränkter Haftung are responsible for the preparation of the group management report in accordance with the requirements of German commercial law applicable pursuant to § 315a Abs. 1 HGB. We conducted our audit in accordance with § 317 Abs. 2 HGB and German generally accepted standards for the audit of the group management report promulgated by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany) (IDW). Accordingly we are required to plan and perform the audit of the group management report to obtain reasonable assurance about whether the group management report is consistent with the consolidated financial statements and the audit findings, as a whole provides a suitable view of the Group's position and suitably presents the opportunities and risks of future development.

According to § 322 Abs. 3 Satz 1 HGB, we state that our audit of the group management report has not led to any reservations.

In our opinion based on the findings of our audit of the consolidated financial statements and group management report, the group management report is consistent with the consolidated financial statements, as a whole provides a suitable view of the Group's position and suitably presents the opportunities and risks of future development.

Stuttgart, March 10, 2015

PricewaterhouseCoopers
Aktiengesellschaft
Wirtschaftsprüfungsgesellschaft

Harald Kayser
Wirtschaftsprüfer

Marcus Nickel
Wirtschaftsprüfer

Ten-year summary of the Bosch Group

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Currency figures in millions of euros

	2005	2006	2007	2008	2009	2010	2011	2012[1]	2013	2014
Sales	**41,461**	**43,684**	**46,320**	**45,127**	**38,174**	**47,259**	**51,494**	**44,703**	**46,068**	**48,951**
of which generated outside Germany (as a percentage)	73	74	75	74	76	77	77	77	77	78
Research and development cost[2]	3,073	3,348	3,583	3,889	3,603	3,810	4,190	4,442	4,543	4,959
as a percentage of sales revenue	7.4	7.7	7.7	8.6	9.4	8.1	8.1	9.9	9.9	10.1
Capital expenditure	2,923	2,670	2,634	3,276	1,892	2,379	3,226	2,714	2,539	2,585
of which in Germany	974	968	1,138	1,610	928	1,023	1,161	988	913	1,098
of which outside Germany	1,949	1,702	1,496	1,666	964	1,356	2,065	1,726	1,626	1,487
as a percentage of sales revenue	7.0	6.1	5.7	7.3	5.0	5.0	6.3	6.1	5.5	5.3
as a percentage of depreciation	156	116	108	136	80	100	142	101	126	138
Depreciation of property, plant, and equipment	1,870	2,309	2,428	2,410	2,374	2,373	2,265	2,689	2,008	1,868
Annual average number of associates (thousands)	249	258	268	283	275	276	295	273	280	286
of which in Germany	110	110	111	114	113	112	117	109	108	105
of which outside Germany	139	148	157	169	162	164	178	164	172	181
as of 12/31 of the year	251	261	271	282	271	284	303	273	281	290
Personnel expense	11,936	12,534	12,896	12,994	12,787	14,132	14,719	14,198	14,907	15,325
Total assets	**45,554**	**46,940**	**48,568**	**46,761**	**47,509**	**52,683**	**54,616**	**52,611**	**55,725**	**61,924**
Equity	20,943	22,482	24,825	23,009	23,069	26,243	26,917	26,900	27,686	29,541
as a percentage of total assets	46	48	51	49	49	50	49	51	50	48
Cash flow	4,352	4,521	5,052	4,032	1,910	5,460	4,959	4,053	3,956	4,866
as a percentage of sales revenue	10.5	10.3	10.9	8.9	5.0	11.6	9.6	9.1	8.6	9.9
Profit after tax	2,450	2,170	2,850	372	-1,214	2,489	1,820	2,304	1,251	2,637
Unappropriated earnings	63	69	72	75	67	82	88	88	88	102

[1] Figures following adjustment for changed accounting and valuation methods
[2] Including development work charged directly to customers

List of graphs and tables

Graphs

Robert Bosch Stiftung

Group management report

Tables

Group management report

Consolidated financial statements of the Bosch Group

Published by
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Corporate Communications,
Brand Management, and
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Additional information about the company can be taken from the brochure **Bosch today,** as well as from the internet at **csr.bosch.com**

For an online version of this annual report, go to:
annual-report.bosch.com

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Key data

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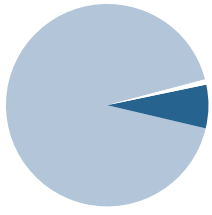
Figures in millions of euros

	2014	2013
Sales revenue	**48,951**	**46,068**
percentage change from previous year	6.3	3.1
percentage share of sales generated outside Germany	78	77
Research and development cost[1]	**4,959**	**4,543**
as a percentage of sales revenue	10.1	9.9
Capital expenditure	**2,585**	**2,539**
as a percentage of depreciation	138	126
Associates		
average for the year	286,084	279,739
on December 31, 2014	290,183	281,381
Total assets	**61,924**	**55,725**
Equity	**29,541**	**27,686**
as a percentage of total assets	48	50
EBIT	**3,030**	**2,751**
as a percentage of sales revenue	6.2	6.0
Profit after tax	**2,637**	**1,251**
Unappropriated earnings (dividend of Robert Bosch GmbH)	**102**	**88**

[1] Including development work charged directly to customers

Shareholders of Robert Bosch GmbH

Shareholding



Robert Bosch GmbH
1

Bosch family
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Robert Bosch Stiftung GmbH
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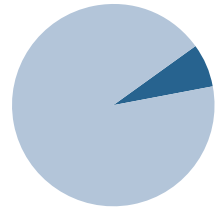
Voting rights



Bosch family
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Robert Bosch Industrietreuhand KG
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