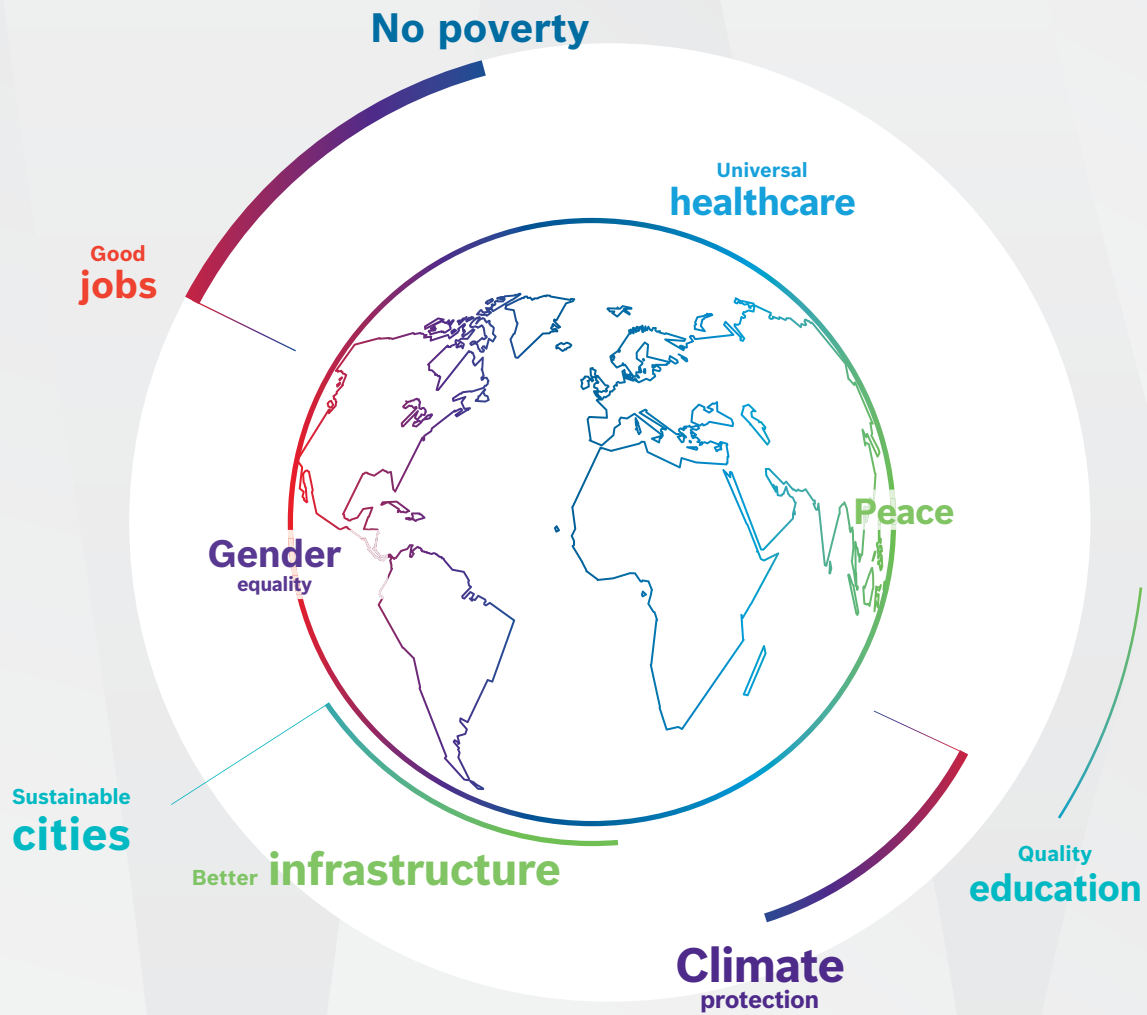


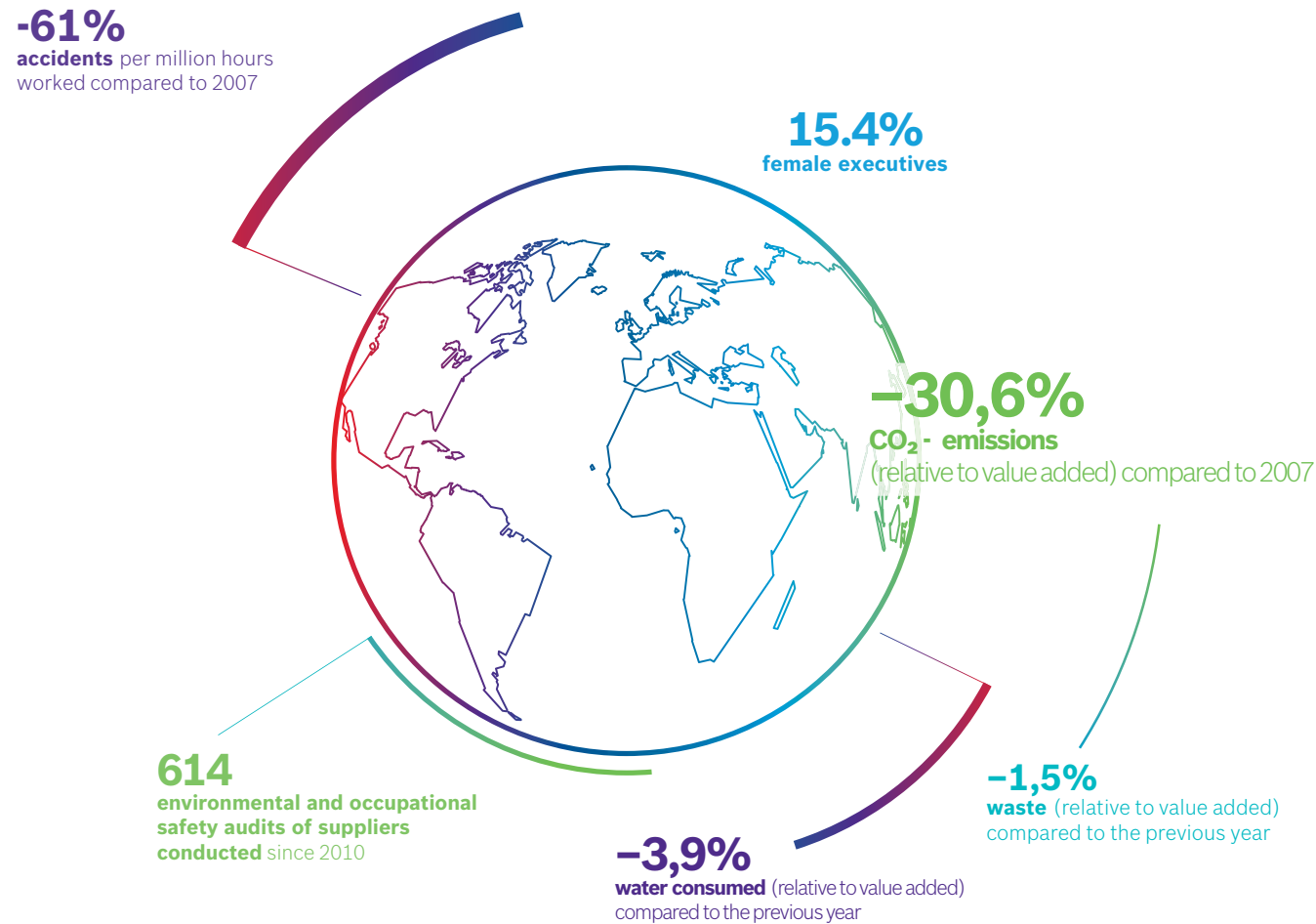


BOSCH

Invented for life



Our achievements in 2016



Targets

- CO₂ emissions** 35% reduction (relative to value added) by 2020 compared to the 2007 reference year
- Waste** 6% reduction (relative to value added) between 2016 and 2018
- Water consumption** 6% reduction (relative to value added) between 2016 and 2018
- Environmental and occupational safety audits** 1,000 by 2020
- Accidents** 1.7 per million hours worked by 2020
- Female executives** 20% by 2020

Contents **Sustainability report 2016**

Bosch Turkey

Both in terms of contents and structure, Bosch observes current standards of sustainability reporting as defined by the UN Global Compact, the German Council for Sustainable Development (RNE), and the Global Reporting Initiative (GRI). This publication serves as a progress report within the framework of the Bosch membership in the UN Global Compact. An overview of non-financial information based on the GRI standards (of 2016) can be found online at sustainability-report.bosch.com

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Foreword

Dear Stakeholders,

The world is undergoing a fast digital transformation. We witness the speed and depth of this transformation in all our businesses, most of all in mobility. Accordingly, Bosch business models are also changing. Being a leading player in our markets and maintaining our position is no longer sufficient for us. As Bosch, we want to manage and guide this process in all its stages.

The impact of digital transformation on the economic, environmental and social areas is strongly felt all over the world. We can see it in almost all of the Sustainable Development Goals stated in the UN Global Compact, of which we are a member since 2004. This year, one of the principal items on the agenda at the 47th World Economic Forum was Industry 4.0, which is emerging fast through digital technologies, and the ever increasing need for it in terms of sustainable development.

Although Bosch is a leader in digital transformation, we prioritize 11 of the 17 Sustainable Development Goals in line with the way we do business. 'Quality Education' (SDG 4), 'Decent Work and Economic Growth' (SDG 8), 'Industry, Innovation and Infrastructure' (SDG 9), 'Sustainable Cities and Communities' (SDG 11), 'Climate Action' (SDG 13) and 'Peace and Justice' (SDG 16) are among the global goals on which we focus particularly.

At Bosch, we have a system of values which we express with our motto, 'Invented for Life'. This system is the focus not only of our areas of operation, but also of our sustainability activities. Today, this motto also encompasses digital transformation. The extensive virtual network called the Internet of Things now connects all the parts, machinery, products, systems and also people in the manufacturing process. It is estimated that the worldwide market for Internet of Things will grow 35% by 2020, and reach a value of 250 billion dollars. In our organization we observed this trend at an early phase within the scope of Industry 4.0, which is a reflection of the 'Industry, Innovation and Infrastructure' (SDG 9) among the Sustainable Development Goals, and we have already become a leading user and supplier of connected industrial technologies.

In Turkey, we have significant programs in Industry 4.0 since 2014. We implemented three of the projects in the pipeline in 2016. With these projects, we aim to shorten the time for intervention in case of a malfunction and reduce maintenance costs by 30%, while increasing production capacity by 5-10%. Our Bursa plant is currently a part of the global Industry 4.0 manufacturing chain, and uses the latest manufacturing technologies.

In line with SDG 9, Bosch Turkey works to contribute to our country with infrastructure development in certain areas and new product designs. For instance, we produced 17 special hydraulic motors to be used in the terrestrial antenna system to control the satellite which NASA sent to Jupiter last July. These motors were developed and manufactured by a team of 4 Turkish engineers in our Bosch Rexroth plant in Bursa.

In 2016 we also realized several prestigious projects using our security systems, in line with 'Sustainable Cities and Communities' (SDG 11). We provided a comprehensive safety & security solution including video surveillance system, fire alarm system, and access control system for the Eurasian Tunnel, which connects Europe and Asia with a motorway under the seabed.

We made significant progress towards our sustainability goals also within our organization. The reduction in our emissions exceeded out targets, and was realized as 30.6% compared to 2007. We also succeeded in reducing our water consumption by 3.9%, and waste by 1.5% compared to the previous year.

We approach health and occupational safety issues with utmost sensitivity in order to be able to respond to the expectations of our employees, who are our key stakeholders in sustainability. We are happy to announce that we realized a significant reduction of 61% in the number of workplace accidents compared to 2007. Another point of which we are proud is the increase in the number of our female managers, in line with our commitment to the Sustainable Development Goal on 'Gender Equality'. We increased the number of our female managers in Bosch by 15.4%, and made significant progress towards sustainability.

As presenting our sustainability report concerning our 2016 performance on sustainability goals, I would like to emphasize in particular that we greatly value your comments and recommendations about our report.

As Bosch, we will continue in the future to focus on preserving the natural environment as much as securing our company's long term success. We shall enhance our innovative power for sustainable economic growth, less consumption of natural resources and greater social prosperity, and we shall continue to inspire the masses.

We will be happy and honored to pursue this path together with you.

Sincerely,



Steven Young
President, Bosch Turkey and Middle East

In 2016, Bosch activities mainly supported the following eleven UN targets:



Source: United Nations

BOSCH.COM

About us

The Bosch Group is a leading global supplier of technology and services. It employs about 390,000 associates worldwide. Bosch offers connected products and services that help improve quality of life around the world.

The Bosch Group comprises Robert Bosch GmbH and its approximately 440 subsidiaries and regional companies in some 60 countries. Including sales and service partners, Bosch's global manufacturing, engineering, and sales network covers nearly every country in the world. Its operations are divided into four business sectors: Mobility Solutions, Industrial Technology, Consumer Goods, and Energy and Building Technology. In 2016, the Bosch Group's sales grew by 3.6% over the previous year to 73.1 billion euros.

92% 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. This special ownership structure guarantees the entrepreneurial freedom of the Bosch Group, enabling the company to plan over the long term and to undertake significant up-front investments in the safeguarding of its future. What is more, the Bosch Group's profit-oriented approach shapes the foundation of the company's charitable activities, as well as those of Robert Bosch Stiftung.

Strategy

The Bosch Group's strategic objective is to create solutions that are "Invented for life". These include products that spark enthusiasm, improve quality of life, and help conserve resources. To achieve this aim, we drive change and seize opportunities in the areas of connectivity, electrification, and energy efficiency. Today, we are a leading provider for the Internet of Things (IoT). Thanks to our expertise in the realms of sensor technology, software, and services, we offer innovative technologies in the areas of smart homes, smart cities, connected mobility, and Industry 4.0. Here, we benefit from our global research and development network, which counts some 59,000 associates around the world. In 2016, Bosch spent a total of seven billion euros or 9.5% of its sales on its research and development activities.

Sales by business sector

60.1% MOBILITY SOLUTIONS
24.2% CONSUMER GOODS
8.6% INDUSTRIAL TECHNOLOGY
7.1% ENERGY & BUILDING TECHNOLOGY

109.1 MILLION EUROS:

The Robert Bosch Stiftung budget in 2016, which was spent on 683 projects.



Bosch Turkey¹

Bosch Group had started its operations in Turkey with a representation office founded in 1910, and established its first factory in Bursa in 1972. With 17,000 employees, 12 billion TL turnover, and 7 billion TL export as of the end of 2016, Bosch Turkey operates as one of the leading technology and service suppliers of Turkey. The Middle East Region based in Dubai is added to the responsibility area of Bosch Turkey on January 1, 2015. Bosch has 5 sales offices in this region including the United Arab Emirates, Saudi Arabia, Qatar, Lebanon, and Pakistan. In 2016, Bosch Iran Organization was founded in Iran's capital city Tehran under the responsibility area of Bosch Turkey. Thus, Bosch Turkey has become the center for 17 countries.

Bosch Turkey Group consists of seven companies.

- Bosch Sanayi ve Ticaret A.Ş.
- Bosch Termoteknik Isıtma ve Klima Sanayi Ticaret A.Ş.
- Bosch Rexroth Otomasyon Sanayi ve Ticaret A.Ş.
- Bosch Fren Sistemleri Sanayi ve Ticaret A.Ş.
- BSH Ev Aletleri Sanayi ve Ticaret A.Ş.
- Robert Bosch Middle East FZE
- Bosch Tejarat Pars

Bosch Sanayi ve Ticaret A.Ş., Bosch Termoteknik Isıtma ve Klima Sanayi Ticaret A.Ş., Bosch Rexroth Otomasyon Sanayi ve Ticaret A.Ş., and Bosch Tejarat Pars are joint stock companies and 100% subsidiaries of Bosch Group. BSH Ev Aletleri Sanayi ve Ticaret A.Ş. has also become 100% subsidiaries of Bosch Group as of 2015. Robert Bosch Middle East FZE, a free-zone company, is also 100% subsidiaries of Bosch Group. 84,5% shares of Bosch Fren Sistemleri Sanayi ve Ticaret A.Ş. are owned by the Bosch Group, and 15,5% shares are public and traded in Borsa Istanbul (BIST).

1. Bosch Sanayi ve Ticaret A.Ş.

It is the largest company of the Bosch Group in Turkey. Company manufactures diesel systems and gasoline injection systems in its three factories in Bursa for the leading automotive manufacturers of the industry. The company also develops new technologies, including Diesel and Gasoline Injectors, through its two R&D Centers. Designing and manufacturing of assembly systems and special machinery has started in Bursa under the brand Atmo since 2009. Bosch Sanayi ve Ticaret A.Ş. company's Automotive Original Equipment sales office operates in Bursa, as well as Bosch Turkey and Middle East Headquarters building located in Küçükyalı, Istanbul, while Automotive After Market, Power Tools, and Security Systems sales offices serve at the Bosch Turkey and Middle East Headquarters building.

2. Bosch Termoteknik Isıtma ve Klima Sanayi Ticaret A.Ş.

Wall-hung boilers and components are being manufactured in the Manisa Factory, the biggest combi boiler factory of Bosch worldwide. Factory has been operating for 26 years on an area of 109 thousand square meters, and is positioned as a center both designing and developing the products. Bosch Manisa Factory manufactures more than 566 types of products for 18 device families, and exports products as copper pipe, steel, copper and plate heat exchangers, which it uses in the manufacturing to other Thermoteknik factories. More than 500 thousand boilers have been manufactured annually in the





Manisa Factory since 2011, and the factory breaks manufacturing records consecutively. Bosch Termoteknik's sales office is located in Istanbul.

3. **Bosch Rexroth Otomasyon Sanayi ve Ticaret A.Ş.**

Company develops innovative products in the segments of mobile applications, machinery applications and engineering, factory automation and renewable energies as well as tailored system solutions. As the leader in drive and control technologies, it offers its customers hydraulics, electric drives and controls, gear technology, and linear motion and assembly technology all from one source, and provides training and after-sales services related to these technologies as well. The sales office of the company is in Gebze, Taysad Organized Industrial Zone, and the factory in Bursa, Nilüfer Organized Industrial Zone.

4. **Bosch Fren Sistemleri Sanayi ve Ticaret A.Ş.**

Founded in 1975, the Company is active in the field of manufacturing of hydraulic brake systems for automotive and light commercial vehicles required by the major automotive and the aftermarket. Having an effective production and sales network, Bosch Brake Systems becomes more powerful in the Turkish market each passing day. Its factory is in Bursa.

5. **BSH Ev Aletleri Sanayi ve Ticaret A.Ş.**

With an investment of € 1 billion since 2005, BSH Turkey is the largest foreign investment white goods company of Turkey, develops and manufactures products in Turkey with its brands Bosch, Siemens, Gaggenau and Profilo, and exports them to the entire world including the European countries. Assuming the responsibility of 89 countries and 8 manufacturing facilities of the BSH Group including Africa, Middle East, Central Asia, Ukraine, Russia, and Belarus as of 2014, BSH Turkey has the biggest manufacturing facility of the BSH Group in Çerkezköy. BSH Turkey is the first to receive R&D Center certificate in Turkey, and has increased the number of its R&D engineers by 488% during the last 10 years. Offering estimation, installation, servicing/repairing, additional warranty and

accessory sales services before and after the sales of Home Appliances, BSH Service operates with 2,500 employees in 4 Regional Offices, 8 Factory Central Services, and 360 Authorized Services throughout Turkey.

6. **Robert Bosch Middle East FZE**

Headquartered in Dubai, Robert Bosch Middle East FZE offers various products and services of Bosch to the Middle East for 90 years. Company serves to 14 countries in the Middle East with 160 employees in the fields of Automotive Parts and Equipment, Power Tools, Drive and Control Technologies, Security Systems, and Thermotechnology.

7. **Bosch Tejarat Pars**

Founded in January 2016 in Iran's capital city Tehran, the company operates in all fields of Bosch including Mobility Solutions, Energy and Building Technologies, Industrial Technologies, and Consumer Goods.

¹ Please visit the websites for detailed information on the products and services of the companies under the Bosch Turkey Group:

Bosch Sanayi ve Ticaret A.Ş.:

www.bosch.com.tr

BoschTermoteknik Isıtma ve Klima San. Tic. A.Ş.:

http://www.bosch-termoteknik.de/en/tt_com/international/bosch_termoteknik_tuerkiye/homepage_information_1.html

Bosch Fren Sistemleri Sanayi ve Ticaret A.Ş.:

<http://www.boschfren.com.tr>

Bosch Rexroth Otomasyon Sanayi ve Ticaret A.Ş.:

<http://www.boschrexroth.com/tr>

BSH Ev Aletleri Sanayi ve Ticaret A.Ş.:

<http://www.bsh-group.com.tr/anasayfa>

Robert Bosch Middle East FZE:

<http://www.bosch.ae/united-arab-emirates/en/homepage/>

Bosch Tejarat Pars:

<http://www.bosch-home.com/ir/>

SUSTAINABILITY.BOSCH.COM

Our responsibility

For the Bosch Group, sustainability means securing the company's long-term success while at the same time protecting the natural environment for future generations.

Our "Invented for life" ethos not only applies to our core business, but also to the subject of sustainability. We aim to make renewable sources of energy more efficient, mobility even safer, cleaner, and more economical, and to develop eco-friendly products across the board. We see ecology as an engine of innovation and a pillar of our company's success.

Our definition of sustainability also includes social well-being. In the regions close to Bosch locations, we are especially committed to promoting good quality education. In addition to this, our dividends fund the activities of Robert Bosch Stiftung, which is also our shareholder. The foundation uses the money to fund non-profit social projects in the following areas: migration, integration, and participation;

social cohesion in Germany and Europe; and sustainable living spaces. In its efforts to strike a sustainable balance between economic, ecological, and social concerns, Bosch focuses on four main areas of action: environment, products, associates, and society. Within these four areas, the company pursues the following five sustainability targets around the world;

1. **Observing binding CO₂-Reduktion**
35% reduction in CO₂ emissions (relative to value added) by 2020 compared with 2007
2. **Actively conserving resources**
6% less waste and water consumption (relative to value added) between 2016 and 2018
3. **Consistent environmental and social audits**
1,000 environmental and occupational safety audits of our suppliers by 2020
4. **Reducing the number of accidents in the workplace**
1.7 accidents per million hours worked by 2020
5. **Increasing the number of female executives**
20% female executives by 2020

In addition to these five quantitative targets, Bosch also pursues a broad range of qualitative sustainability goals. These include further expanding our environmental/safety portfolio, as well as promoting diversity, strengthening our commitment to education and associate development, and protecting the environment with innovative solutions.

In our annual sustainability report, we describe our progress and the ways in which we pursue the principles of the UN Global Compact, the world's largest initiative for corporate responsibility of which Bosch is a member. In 2017, we are striving to integrate the UN's Sustainability Development Goals in our materiality analysis. The aim here is to put a greater focus on solving current social challenges. Bosch conducts this analysis on a regular basis to assess, the sustainability-related issues of which are relevant for its target groups.



Our areas of action

Environment

What are we doing?

We contribute to protecting the environment with our products and our own business activities. Each year, we set targets with regard to our use of resources, and apply a systematic environmental management system to reduce our energy consumption and waste at our locations around the world. We focus on protecting the climate through energy efficiency, sustainable production, and resource conservation. We also consider an eco-friendly infrastructure as an important aspect, and contribute to this target by rehabilitating contaminated sites, for instance. Within the framework of the Bosch Code of Conduct, we also call on our suppliers to comply with sustainability standards.

How are we doing it?

In order to reduce our carbon footprint, we have introduced the ISO 14001 environmental management system at all of our manufacturing locations around the world, as well as at our larger development locations. So far, 257 locations have been certified, which represents 87% of Bosch locations worldwide.

Which SDGs did our activities support in 2016?



[bosch.com](#) > Sustainability > Environment

Products

What are we doing?

At Bosch, we consider the protection of the environment as an engine of innovation. In line with our “Invented for life” ethos, we develop energy-efficient and safe products that conserve resources and improve quality of life. We focus mainly on the areas of energy efficiency, electromobility, and automated driving. In 2016, 55% of our research and development budget went toward our environmental and safety portfolio, which accounted for 43% of Bosch sales.*

How are we doing it?

- We are committed to sustainable mobility:** In the Mobility Solutions business sector, we are pursuing the vision of sustainable, low-carbon forms of mobility that will not be dependent on fossil fuels in the long term. To this end, we have come up with a seven-point program that will assist automotive manufacturers in reducing the CO₂ emissions of new vehicles to an average of 95 grams per kilometer by 2021. At the same time, we spend some 400 million euros each year on powertrain electrification.
- Program for energy efficiency:** In order to reduce energy costs and emissions, and to increase energy efficiency, we have created programs such as “Rexroth for Energy Efficiency (4EE)”. Bosch Rexroth industrial manufacturing facilities are systematically analyzed and optimized, as are those of its customers.
- Design for Environment:** In the development departments of our business units, our “design for environment” approach puts emphasis on a consistent improvement of the environmental performance of our products since 2000.

The process begins in the early product development stages and aims to reduce the use of hazardous materials, improve the resource efficiency of our products, and decrease the environmental impact of our products throughout their life cycle.

Which SDGs did our activities support in 2016?



Associates

What are we doing?

One of the main targets of our human resources policy is to offer our associates continuous training that meets their needs, build loyalty among our workforce, and help our associates stay in good health. Good working conditions and a corporate culture that promotes diversity are decisive elements of an HR strategy that enables our associates to reach their full potential.

How are we doing it?

Our “We are Bosch” mission statement describes our values. With them, the Bosch board of management and associate representatives confirm their continued commitment to protecting human rights and promoting equal opportunities, as well as to ensuring fair working conditions and complying with global labor and occupational health standards. Bosch ensures the latter with an occupational safety management system that is based on the globally accepted OHSAS 18001 standard. At present, 130 Bosch locations have external certifications, which represents 44% of all locations. Another important pillar of our HR policy is our diversity initiative. It focuses on equal opportunity, generational diversity, internationality, and flexible working conditions that put results ahead of presence. In addition to this, the Bosch Code of Conduct provides associates with a point of orientation with regard to ethical issues.

Which SDGs did our activities support in 2016?



[bosch.com](#) > Sustainability > Associates

Society

What are we doing?

In accordance with our understanding of sustainability, we are active in the regions close to our locations, mainly in the area of education. This includes supporting both up-and-coming scientists and long-term education projects in deprived regions or neighborhoods. We also support disaster relief initiatives quickly and without much bureaucracy. Our local associates volunteer their time to help rebuild, while the company provides donations-in-kind and funding available.



How are we doing it?

We finance corporate foundations in India, Brazil, China, and the United States. This allows targeted, long-term local support, for instance in the form of education and social projects. Local networks thus make it possible for young people, among others, to have a successful start in the working world. Moreover, we encourage our associates to volunteer for social initiatives and promote social well-being at almost every Bosch location around the world.

Which SDGs did our activities support in 2016?



[bosch.com](#) > Sustainability > Society

* excluding BSH Hausgeräte

Creating structures

1 NO
POVERTY



About 10% of the world's people have to survive on less than 1.90 US dollars a day, and thus live in extreme poverty. Rural populations are especially affected, and Bosch has set out to do something about it: regional foundations such as the Bosch India Foundation and the Bosch China Charity Center are making targeted efforts to promote the economic development of rural areas. Moreover, Bosch associates around the world support non-profit organizations in the fight against poverty.

About three quarters of India's population live in rural areas, often in deprived conditions. Since it was founded in 2008, the Bosch India Foundation has supported some 250 villages. The foundation's work includes improving sanitation, access to healthcare, and education, as well as protecting the environment and improving economic conditions. Achieving improvements in all of these areas is decisive for improving the quality of life of rural populations in a lasting manner. In 2016, the foundation offered training to 17,800 women, farmers, and children. And their efforts paid off: some 2,000 women now have jobs, 2,500 farmers have achieved better yields than the national average, and 500 young people are earning more than 5,000 rupees (more than 70 euros) each month. All of this demonstrates the effectiveness of the foundation's programs.

Promoting individual strength

In China, too, Bosch is committed to sustainable rural development. In July 2016, the Bosch China Charity Center established the "807 Social Innovation Center" charitable initiative, which has set itself the target of supporting Hongqi, a village in Yunnan Province. Educational resources are scarce in the community, which comprises some 2,500 people. Often, the rural population cannot afford school fees. Last year, the initiative provided some 220,000 Yuan (about 30,000 euros) to spark the village's economic development and improve education in the community. The idea focused on bringing modern expertise to the village while at the same time making the best possible use of the population's age-old know-how. For instance, the "Crafts New Program" uses traditional trades as a resource. At workshops, external designers are taught the skills of villagers, which they can then use in their own work. In 2016, the initiative resulted in the "Full of magic Shangri-La" exhibit at the local museum. The exhibit attracted 20,000 visitors and provided an important platform for local art. In addition to this, the designers went to local schools and cooperated with children and young people to create works of art.

Committed to fighting poverty

In 2016, Bosch locations around the world contributed to the fight against poverty. In Australia, almost every Bosch associate actively supported the St. Vincent de Paul Society in its efforts to help the homeless in Melbourne. With fundraising activities such as the auctioning off of household items, donations totaling 45,000 Australian dollars (about 32,000 euros) were collected. This by far exceeded the initial fundraising target of 30,000 dollars. The money was used to distribute 29,000 warm meals. A "sleep out" also comprised part of the initiative: for one night, 35 Bosch associates slept on the street, among them Gavin Smith, the president of Bosch Australia. The aim was to raise awareness of homelessness and attract more supporters to the cause.

In the Ukraine, associates at all Bosch locations collected a total of 10,000 euros for the "Hoverla" project. The money went toward renovating the Zaluchchia orphanage with the active support of Bosch associates. In France, too, Bosch associates lent a helping hand by rounding off their salaries to the nearest euro. Some 1,100 associates at twelve locations took part, and raised a total of 3,600 euros for children's charities.

Regional foundations in numbers (2016)

Bosch Community Fund (Farmington Hills, USA)

EUR 3.3m

Bosch China Charity Center (Shanghai, China)

EUR 2.4m

Instituto Robert Bosch (Campinas, Brazil)

EUR 1.0m

Bosch India Foundation (Bangalore, India)

EUR 0.9m

For a world without hunger

2 ZERO
HUNGER



According to the FAO, the world population will grow to 9.6 billion people by 2050. Today, one in every nine people on the planet does not have enough to eat. In order to improve access to food for all, enhancing agricultural yields will be decisive. In this regard, Bosch supports with innovative solutions that also promote sustainable agriculture.

Sensors, software, and robotics are a central focus of research and development at Bosch, which aims to improve the quality of food and help make agricultural processes more eco-friendly. In 2014, Bosch founded Deepfield Robotics, a start-up that seeks to digitize agriculture and create the Internet of fields and plants. In 2016, the company further developed its BoniRob agricultural robot. By way of automatic image processing and a satellite control system, the machine can be maneuvered precisely across the field, moving to exactly where it needs to go, down to the last centimeter. The robot serves to remove weeds mechanically, thus eliminating the need for pesticides. The Deepfield Connect solution is already being used for strawberry and asparagus fields in Germany. Sensors are used to assess soil temperatures at various depths and transmit the data to

the Bosch IoT Cloud, which then sends it to the farmer's app. Depending on how the temperature develops, farmers can respond quickly and optimize growth conditions in their fields. The solution has already been awarded a silver technology medal at the Agritechnica trade show in Hannover, as well as the Innovation Prize at the expoSE in Karlsruhe.

High-tech for green patients

The Bosch "Marta" project, which was launched in the fall of 2016 in cooperation with the University of Hohenheim and Cubert, focuses on developing ways of detecting leaf diseases at an early stage and making plant protection more resource efficient. Marta stands for smart spraying: in the future, once a leaf disease is detected, it will be treated locally and in a targeted manner. The aim is to maintain plant health while reducing the use of pesticides. To this end, Bosch and its partners are using spectral cameras that illuminate the leaves. Depending on the leaf disease, the light is reflected to different degrees. Researchers hope the method will make it possible to treat plants individually – and this will benefit both the environment and farmers. In India, too, Bosch technology is making agricultural processes more resource efficient. The interplay of three systems enables farmers to monitor their fields more precisely in real time, and this in turn allows for better soil and water management. Using sensors, "AgriSense" collects and "Sankhya" analyzes data from the fields, and then makes recommendations. And "AquaZen" waters plants automatically if desired – providing the exact amount of water needed.

Bosch China: Food for the needy

In a number of European countries, charitable organizations pass out surplus food to eligible needy persons. Bosch has now also introduced this successful model in China. In cooperation with the "Shanghai Green Oasis Ecological Conservation and Communication Center," the Bosch China Charity Center began supporting a food program for the needy in the middle of 2016. Last year, the aid organization distributed 85 tons of food to 5,000 families.





Healthier lives, healthier work



Serious illness, inadequate sanitary conditions, and traffic accidents are just three examples of threats to human health around the world. With its commitment to charitable initiatives, innovations that make road traffic safer, and its focus on occupational safety, Bosch promotes health in a number of ways.

The number of people suffering from cancer is on the rise. According to World Health Organization estimates, by 2025 some 20 million people will be diagnosed with cancer each year. In cooperation with Robert Bosch Krankenhaus (RBK), Bosch has been tackling this challenge since the summer of 2016. Together, they have launched several initiatives, the cornerstone of which is the newly founded Robert Bosch Tumor Center (RBCT) in Stuttgart, which is run in cooperation with the German Cancer Research Center (DKFZ). RBCT is set to become part of RBK, thus strengthening the hospital's cancer research activities. The aim is to allow patients the best possible individual treatment. Robert Bosch Stiftung will provide a total of 24 million euros for the project until 2020. The funding is being used to build a study center, expand the medical

management team, and finance two endowed professor-ships. Moreover, Robert Bosch GmbH is providing support for associates with cancer, initially in Germany. With the "OncoCure" program, which receives one million euros in funding each year, the patients receive access to diagnostics at RBK and DKFZ.

In addition to this, on May 22, 200 Bosch associates in Bari, Italy, laced up their sneakers to support the fight against cancer: they ran in "Race for the Cure" a marathon for Susan G. Komen, a non-profit organization that supports cancer patients.

Making mobility safer

By 2020, the United Nations want to reduce the number of road traffic deaths by half compared to 2013, when 1.25 million people around the world died as a result of traffic accidents. To support this aim, Bosch has focused on prevention. At the ITS World Congress 2016 in Melbourne, Bosch Australia's Chassis Systems Control division presented a fully automated test vehicle, which makes driving not only more relaxed, but also safer. A modern Human Machine Interface (HMI) system is one of the technologies the car is equipped with. Part of this system is an on-board camera that prevents drivers from falling asleep at the wheel. The system is able to do so by detecting the drivers' eye movement and sounding a warning when the eyes are closed for too long. In addition to this, when it is in fully automated mode, the system constantly monitors traffic with its 360-degree sensors. The vehicle's sensors and information systems also work when the driver is operating the car manually. Thanks to wireless communication, the sensors detect the activities of other users at a very early stage. This is especially important for motorcycles, which are often overlooked in traffic. This project has attracted the attention of policymakers, as 90% of all road accidents in Australia are the result of human error. The Transport Accident Commission (TAC) and the state of Victoria have made additional funding available to bring automated vehicles to the roads quickly and turn the vision of accident-free driving in Victoria into reality.

Making work safer

Awareness For Traffic Safety

In line with its 'Zero Accident' vision, Bosch carries out efforts to increase awareness on the impact of active safety systems and driver assistance systems in avoiding potential accidents.

For this purpose, Bosch participated in the 7th "Highway Traffic Safety Symposium and Exhibition" held in Ankara in November 2016. Participants were informed about the importance of driver assistance systems and active safety systems for safe driving in traffic, and the possibility of reducing or avoiding potential traffic accidents through the use of these systems. As a company operating in the automotive industry, Bosch will continue its efforts to raise awareness about safe driving.



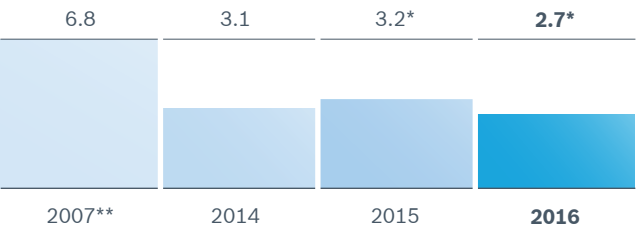
In 2016, Bosch launched the global "Safety Basics" initiative. Safety experts developed six easy-to-remember principles (see right) that aim to help supervisors further reduce the number of workplace accidents. For instance, the first principle, "in everything we do, safety considerations are essential," underlines that the topic needs to be at the center of all processes. The fourth principle, "we look out for one another's safety," shows that the safety of all team members is just as important as personal safety. The six rules have been made an integral part of Bosch's occupational safety standards. The aim is for safety to become a part of everyday management culture and of standard processes. At the same time, accidents that have been narrowly avoided should be carefully analyzed, and lessons learned should be shared with colleagues. Locations

were free to implement the "Safety Basics," which they considered appropriate and in some instances even came up with creative approaches. The Bosch plant in Moulins, France, shot a video to illustrate each principle in practice. At the Jaipur location in India, an info day on the subject of safety was held at the end of March: machines at the site were turned off, and safety measures were demonstrated not only to associates, but also to their families. Associates at the Automotive Electronics division in Germany supported the initiative with a tongue-in-cheek poster campaign that featured images of animals. And the Chassis Systems Control division in China took a 360-degree approach: steering committees were established at all locations that focus exclusively on occupational safety. At seminars, supervisors learned how to be role models and spark their associates' enthusiasm for the subject of safety in the workplace. Moreover, safety is now at the top of the agenda at every meeting and is part of every inspection.

Development occupational safety Bosch Group 2007, 2014–2016

ACCIDENTS

per million hours worked



* From 2015 onward, including BSH Hausgeräte and Automotive Steering (AS)
** Base year

Awareness For Work Safety

Bosch Turkey initiated several projects in all its locations in order to implement the Safety Basics. Working groups were created with all employees, and workshops were organized to decide on the activities to be undertaken within this scope. Manager briefs were issued in order to inform all employees about the Safety Basics using written and visual media (posters, billboards, shuttles, paper cups, the plant newsletter, wallpaper, etc.). The Bosch Plant in Manisa made a video with employees and their children emphasizing the importance of work safety, and initiated the practice of using flags in work stations in order to encourage safe working areas. A program called The Dialogue for Work Safety was initiated in Bursa Brake Systems Plant for improving work safety, and an informative video was shot for guests and subcontractors. Managers made regular field visits in all locations to improve work safety, give information about these subjects, and act as role models. Work safety was also made the most important item on the agenda in every meeting.

The Bosch Safety Basics

1. In everything we do, safety considerations are essential.
2. As supervisors, we care about your safety.
3. We ensure a safe working environment for all.
4. We look out for one another's safety.
5. We speak openly about safety.
6. When it comes to safety, we have a zero-tolerance policy.

Universal education

4 QUALITY EDUCATION



Limited resources prevent young people from attending schools and universities. To remedy the situation, the United Nations aim to significantly increase the number of young people

with technical knowledge and marketable skills by 2030. The following three examples illustrate how Bosch is contributing to preparing young people for their working lives.

The Instituto Robert Bosch in Curitiba, Brazil, demonstrates how long-term cooperation between companies and local authorities may function efficiently. Since 2004, the corporate foundation has been investing in programs that have benefited the needy at four Bosch locations in Brazil. The foundation not only mobilizes funding and personnel, but it also coordinates the activities of Bosch associates who have volunteered their time. Moreover, the foundation develops apprenticeship and training programs, including classes in electrical engineering, mathematics, and sales. These classes are always developed in close cooperation with the municipal authorities. In 2016, the Instituto Robert Bosch was honored with the “SESI ODS Award” for its commitment to social well-being. The prize is awarded by the Social Service of Industry (SESI), a national non-profit organization that focuses on the education and health of the workforce.

With **16 PROJECTS** Instituto Robert Bosch reached **3.200 YOUNG PEOPLE** over the course of its **"PEÇA POR PEÇA"** initiative in 2016.

A mission for diversity

Long-term educational partnerships are a central focus of Bosch's sustainability activities in Italy. In 2016 and for the eighth time, the company invited elementary schools to take part in the “Missione Ambiente” project, which complements the curriculum with sustainability-related learning materials that Bosch developed. In 2016, diversity and the co-existence of different cultures were the central focus. Participating schools were given the task of developing a bottle label that promoted cultural diversity. The three best designs were then produced in cooperation with a mineral water company, and proceeds from the bottles sold were donated to a charitable organization. In total, 4,500 schools took part in the competition.

Supporting the “Makers of Tomorrow”

Bosch Laos and the National University of Laos launched the “Makers of Tomorrow” program in September 2016. The aim is to promote the creativity and practical skills of up-and-coming engineers, architects, and designers. Their first challenge was to find new application possibilities for an old water tank that had been standing idle on the campus for decades. The winning concept planned to turn the tank into an open classroom that is powered with solar energy and has a natural ventilation system. Bosch supported the teams with specialist knowledge and the tools they needed for their projects. The winning concept is currently being realized. Following the positive response to the joint initiative, the partners are planning to strengthen their cooperation by establishing a “Makers of Tomorrow” academy. The training center will offer students the opportunity to improve their practical skills in a targeted manner.

Bursa Volunteer Teams

Employees at Bosch Sanayi ve Ticaret A.Ş. Bursa Plant have been organizing various activities in Bosch Volunteer Clubs for over 20 years. A campaign was organized to collect books in the factory in 2016. Over 1000 books were collected and delivered to village schools in districts around Bursa. Stationery supplies were donated to a village school in Keles with 35 students. A visit was organized to Dr. Ayten Bozkaya Special Education Center in order to contribute to the first special school project in Turkey, and end-of-term gifts were distributed. New Year cookies were baked together with children with various disabilities in Mitat Enç Special Education School. Over 100 children spent a fun day with the dough and molds bought for the purpose.

Manisa Plant İŞKUR Program

İŞKUR program's purpose is to help people without any professional competency or work experience gain these qualities and increase their employability since 2011. The program also aims to give employers the opportunity to observe and train potential recruits, get to know them in detail, and be able to make better decisions about recruitment. Through the program, people who seek new job opportunities but can not find due to lack of experience, will be able to gain work experience, and employers will have the opportunity to train their workforce themselves. 380 trainees were included in the program at the Bosch Termoteknik Manisa factory since 2011, and 170 people were employed.



Şişli Technical and Industrial Vocational High School

Bosch Car Service Training Center was opened at the Şişli Technical and Industrial Vocational High School with an investment of 90,000 euros by Bosch Turkey Auto Parts, and produced its first 18 graduates in the 2014-15 school year. 20 students completed the program in 2015-2016, and a further 22 in 2016-2017. Bosch undertakes the renovation of the training center and supplies the necessary materials for teachers and students. Bosch aims to offer an excellent training to students by providing the automotive industry's demands for qualified workforce.

Diversity calls for equal opportunity

5 GENDER EQUALITY



While half of the global population is female, women in many countries around the world are prevented from the same access to education as their male counterparts, and this puts them at a disadvantage when it comes to entering the workforce. Moreover, even in areas where the share of female graduates is growing, the number of women in management positions has yet to increase accordingly. With its diversity initiative, Bosch supports a culture of diversity and appreciation, which facilitate advancement regardless of gender, age, or background.

“Diversity is our advantage”: since 2011, Bosch has clearly expressed its commitment to promoting cooperation between people of different backgrounds, experiences, and perspectives. This includes attracting more women to technical and management jobs. In doing so, Bosch has declared its commitment to wage equality and offers special mentoring programs. Moreover, the company takes part in events such as Girls' Day or Girls' Campus regularly. Its corporate target is to increase the share of female executives to 20% by 2020.

Promoting networks

Against this backdrop, two events were held specifically for women at the Bosch locations in Istanbul and Bursa, Turkey. At the “Women Build the Future” events, 20 female engineering students were invited to take an exclusive look behind the scenes of the technology company, and to work on case studies. Female executives were on hand to act as mentors and provide information on career opportunities at Bosch. The company also promotes internal knowledge sharing on diversity-related issues, and supports female associates through its associate networks, among them women@bosch, family@bosch, and the Bosch Turkish forum.

Flexible working conditions

In addition to this, Bosch places a great deal of importance on offering working models that make a good work-life balance possible. In its “Guidelines for a flexible and family-friendly working culture,” the company expresses its commitment to promoting telecommuting and to establishing a management culture that places greater value on results than on presence. Many Bosch countries have now either fully implemented the standards that were first introduced in Germany, or adapted them to meet local needs. With the aim of creating flexible working conditions for mothers and fathers, the Bosch location in Curitiba, Brazil, opened Latin America's first company kindergarten in February 2016. The “Kinderhaus” offers

100 daycare spots for children aged six months to five years. The kindergarten also perceives itself as an institution of early childhood education. Even the smallest children are offered educational activities, among them playful English lessons.

Women Build the Future

A meeting with aspiring female engineers was held on 8 March World Women's Day in order to take a step towards the future together. The purpose of the organization was to create awareness about increasing employment of women engineers, and recruit them for the industry. 1,200 people applied for the organization. Students from various universities worked on an exercise prepared by the Purchasing Department and a case study on fast decision making. After the case study, interviews were conducted to include participants in the talent pool. Information was provided about the Bosch Group and career alternatives in Bosch all throughout the activities.



Striving for continuous improvement



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE Sustainable economic growth, lower natural resource consumption, and social prosperity depend largely on the innovative strength of business. At Bosch, the quest for continuous improvement has a name: CIP.

At Bosch, questioning the status quo, ensuring the transparency of one's own actions, listening attentively, and accepting and learning from feedback are integral parts of the "Continuous Improvement Process" (CIP). The process is based on the idea of continuous improvement and is decisive for forward-looking activities. At the "CIP Global Improvement Conference" that was held on the occasion of CIP's 25th anniversary last September, it became clear that a willingness to change has become indispensable in a society that is moving more quickly and unpredictably than ever.

The flow of ideas
The Bosch production site in Charleston, South Carolina, has demonstrated how CIP works in practice. In order to develop as many ideas as possible, associates are invited to pin suggestions on how products, processes, or working conditions can be improved to the

central team board. Following the Japanese "Kaizen" method, the proposal then passes through a process that ends with a suggestion for implementation within a maximum of 30 days. In Charleston, the transparency and the corresponding bonus system for new ideas have raised awareness among all associates for the need for continuous improvement.

Thanks to associates' ideas for improvement, Bosch saved some **150 MILLION EUROS** in 2016.

Learning networks
The CIP network in Latin America also aims to improve results in a lasting manner. Twenty-two CIP coordinators from seven Bosch countries have joined forces to drive forward a culture of constant change and agility in the organization. The network informs about best practices and thus ensures systematic knowledge sharing between individual divisions and locations. In addition, the network has examined various work methods such as the scrum method that is common in software development, and offers associates training workshops. CIP will thus gradually evolve into a knowledge platform of sorts, whose members can network with one another and share knowledge independently.

A similar platform was established on the company intranet to mark CIP's 25th anniversary. For 25 weeks, the international CIP community shared in Skype interviews with managers best practices from various divisions and regions. Associates actively exchanged ideas on the ways in which CIP is being practiced at the company, and provided an outlook about how to shape CIP practices in the future.

Shape the Change – Digital Manufacturing & Industry 4.0 program
Bosch Turkey undertakes pioneering projects in Industry 4.0 globally and in Turkey, and emphasizes industry-academy partnership to train the human resources needed for this big change. Within this scope, Bosch developed a programme named as "Shape the Change – Digital Manufacturing & Industry 4.0". The aim is to enable the students participating in the program to work on projects focusing on Digital Manufacturing and Industry 4.0. Within the scope of this project, students will be offered certain areas in the Bosch plants in Turkey, and asked to work on them. Students selected for the program will work on their Industry 4.0 projects with the support of the engineers in the Bosch Manisa Termoteknik plant as their advisors, and using the Bosch know-how. Bosch supports the students' work through its programs, and provides significant opportunities for young people.

Smart cities



11 SUSTAINABLE CITIES AND COMMUNITIES More than half of the world's population now lives in cities. According to UN forecasts, the figure will rise to 70% by 2050. Urbanization brings forth numerous challenges for road traffic, including congestion, a lack of parking spots, and high levels of pollutant emissions. Together with its partners, Bosch develops solutions that aim to make urban traffic cleaner, safer, and more comfortable.

The world's cities are growing rapidly, with serious consequences in some respects. For instance, in Shanghai, limits for particulate matter are exceeded every day. In London, Paris, and Brussels, rush-hour traffic comes to a standstill on almost 40% of all streets. New strategies are needed to ease the burden on urban infrastructure and the environment. Renewable energies, eco-friendly construction, and alternative mobility concepts are considered important building blocks for the sustainable city. E-mobility, better public transport, and sharing principles are gaining support from a growing number of people. The key to sustainable cities could also lie in digitization: apps, smart navigation systems, and connected parking make life easier for city dwellers while at the same time reducing emissions.

Using rather than owning
A growing number of city dwellers do not want their own car. With the Coup e-scooter sharing service, Bosch has offered Berliners a flexible and low-carbon alternative to owning a vehicle since August 2016. Using an app, customers can locate, reserve, and pay for an e-scooter rental – and then start their ride immediately. Together with fleet users, Bosch is now further developing its offer based on a "test and learn" method. In cooperation with Bosch Vietnam, three Vietnamese universities have also offered a similar service since

November 2016. As part of the "Green Challenge" competition in 2015, students also developed a free e-scooter sharing system for university students.

In addition to congested roads, the limited number of parking spots poses a problem in many cities. One solution could be the flexible use of different forms of transport, a service that Bosch has been testing in the Stuttgart region since the start of 2017. The company has installed 2,500 sensors at 15 Park & Ride parking spots. Via an app that provides real-time information, commuters can now drive to free parking spots close to train stations and continue their journeys on public transit.

Bosch keeps the Eurasia Tunnel connecting two continents safe & secure.

While urbanization leads to problems in Istanbul including increased traffic and air pollution, Bosch Security Systems contributes to environmental protection and relieving traffic congestion. In line with this purpose, Bosch Security System's products and solutions were used in Eurasia Tunnel, which is one of the most important projects realized in Turkey.

Offering a unique underground tunnel experience for the shortest crossing between the two continents, the Eurasia Tunnel guarantees a safe journey, supported by Bosch. The tunnel was opened in December 2016, and chosen as "Best Global Project in 2016" in the tunnels and bridges category by the Engineering News Record, the guidebook of construction industry. With this project, which is the world's first double-deck road tunnel running under the sea, the aim is to reduce emissions by motor vehicles (carbon monoxide, carbon dioxide, nitrogen oxides, particulate matter, etc) by around 82,000 tons per year for the sake of the environment. Bosch establishes the safety and security of the tunnel in order to make this environmental contribution sustainable. In order to prevent traffic congestion and instant intervention in any emergencies that may arise within the tunnel, Bosch controls the traffic flow with its product and solution groups including video systems integrated with the Construction Integration System, Fire Detection Systems and Card Pass Systems.

The traffic flow, potential traffic accidents and all kinds of safety and security threats are monitored 24/7 in the control room through video systems using over 500 cameras. Card Pass Systems in 40 points on the gates of emergency rooms enable the passengers to be evacuated safely. In case of fire, modular fire panels communicate with the central software to initiate the evacuation scenario.



Connected for the future

A closer look at global CO₂ targets shows that powertrain electrification will become an integral part for the future of mobility. For this reason, Bosch spends some 400 million euros each year to drive e-mobility forward. This not only includes further developing battery technology, but also infrastructure. In order for e-mobility to achieve a breakthrough, solutions must be developed that make battery charging easy. In cooperation with different carmakers, among them Mercedes-Benz and smart, the Bosch Software Innovations subsidiary has developed charging apps that connect the charging stations of different providers to one another. App users can thus find out at a glance where the next free charging station is located and make direct payments. With 3,700 stations, 80% of public charging stations in Germany are already connected to one another.

City life 2.0

The Shipyard Community in San Francisco has shown what the neighborhoods of the future could look like, with clean, locally produced energy, city dwellers running their errands with e-scooters, and people looking for parking spots with an app. 12,000 homes are being built there, in addition to 500 hectares of commercial space and 3.5 hectares of green space. Not only is the San Francisco Shipyard the biggest building project in the history of the city, it will also be the first smart urban community in which people can live and work sustainably in a connected environment. In this neighborhood, technology is much more than an add-on: it holds everything together. It can be found in cars, houses, and on the street, and connects individual components to one another so they can interact in real time.

The SF Shipyard is a project of Five Point, which is a subsidiary of Lennar Corporation, a real estate development company. Bosch has provided many of the technical products and services. Not only does the company offer solutions in the areas of smart homes and connected driving, it has the technical expertise required to develop the smart community of the future. For instance, where customers used to simply install a security camera, they now demand full security solutions – and both partners are striving to deliver these.

The city of the future

How good is the neighborhood's air quality? From the very beginning of the SF Shipyard building project, the microclimate monitoring system overlooked the air quality in the area. Via wireless sensors, the system measures the toxin content in the air. In the future, the system will make the lives of Shipyard inhabitants easier, for instance with the help of the Smart Community App that Bosch helped develop. The app can be used to access community-related information in real time. For example, the service informs users of special offers at local businesses, the shuttle bus's current location, and the subway schedule. This encourages people to use public transit, and thus helps reduce CO₂. Bosch is currently also working on modifying car travel to make it more comfortable and fuel-efficient for app users. In the future, a connected parking guidance system will display the route to the next available parking spot. The community's energy supply also plays a key role in reducing CO₂ emissions: the DC micro-grid storage system, which Bosch already installed at a Honda plant in California in 2015, could also be introduced at varied locations. The power generated with solar cells on the roofs of parking garages is fed directly into the grid and used for lighting and ventilation.



Products of the future



People must consume and produce in such a way that the burden on the environment is kept to a minimum for future generations. This is the aim of the United Nations. Bosch strives to achieve this objective with resource-efficient product development and corresponding manufacturing processes.

Product development: eco-friendly materials

Bosch plans to continue reducing the carbon footprint of its products. To this end, the company also relies on a broad range of external expertise, including the innovative solutions of its suppliers. With the "GENESIS" program (Generate with External Synergies & Innovative Solutions), the company has intensified cooperation with partners and suppliers in the product development phase. This involves two approaches, namely routing and scouting. With routing, external parties can submit suggestions for innovation via an online portal (www.bosch.com/idea). Bosch experts then assess whether these ideas are beneficial and feasible, and whether they should cooperate with partners to develop them. With scouting, Bosch identifies the need for innovation in specific product or service areas and then goes in search of specific external expertise.

This process starts with the initial idea, and helps inspire the Bosch development team to come up with more eco-friendly designs: can a material be replaced with another, more eco-friendly or lighter version? How can developers extend a product's life cycle? How can material be reduced or replaced? And can the material be recycled? In addition to product innovations, Bosch also comes up with ideas on process improvements and resource-efficient production methods. In 2016, some 450 suggestions for innovation were submitted.

Manisa Plant ISO 50001 Energy Management System Certificate

Bosch Termoteknik Isıtma ve Klima San ve Tic. A.Ş. obtained the ISO 500001 Energy Management System certificate on 24 March 2016 with its energy efficiency programs. Within the project, energy consumption in the plant was monitored, and technical improvements were made to reduce natural gas and energy consumption. Energy Efficiency Policy was published at the beginning of the process with the aim of protecting the future. Afterwards, an original exercise organized with the slogan "How would it be working in an environment with no energy? Think about it...", employees experienced the importance of energy in life in a dark room.

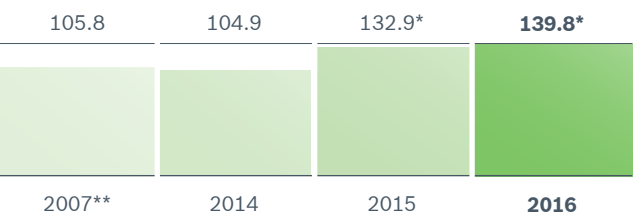
Targets were monitored monthly to impose a discipline on the energy management system with the participation of all departments. Activities and projects to reduce CO₂ emissions were implemented throughout the plant. Energy management became a common focus for every department, and the positive contribution of employees led to continuous improvement.

Current cost of environmental protection

Bosch Group locations 2007, 2014–2016

COSTS

in millions of euros



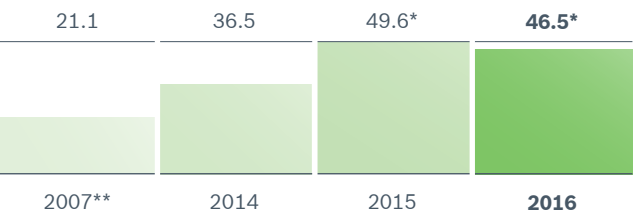
* From 2015 onward, including Automotive Steering (AS) and BSH Hausgerate
** Base year

Investments in environmental protection

Bosch Group locations 2007, 2014–2016

INVESTMENTS

in millions of euros



All for one



Since 1990, global CO₂ emissions have increased by almost 50%. To reverse this trend and limit global warming to a maximum of two degrees Celsius over pre-industrial times, technical innovation is just as decisive as fundamental behavioral change. Bosch supports the targets of the Paris climate agreement in a number of ways, for instance by consistently improving the environmental performance of the company's locations around the world.

The Bosch Group's environmental management system is based on the following targets: to reduce CO₂ emissions by 35% until 2020 relative to value added over the 2007 reference year, as well as to achieve a 6% reduction in volume of waste and water consumption between 2016 and 2018, also relative to value added. To achieve these targets, the company has introduced the ISO 14001 environmental management system at all 296 Bosch manufacturing sites, just like at the larger development locations. So far, 87% have received external certification. At many plants, energy officers cooperate with the CO₂ coordinators of each division to develop emission reduction measures. Via the Bosch Connect internal communication platform, the environmental experts share ideas and ensure that successful approaches are implemented across the company.

Reducing energy consumption with load management

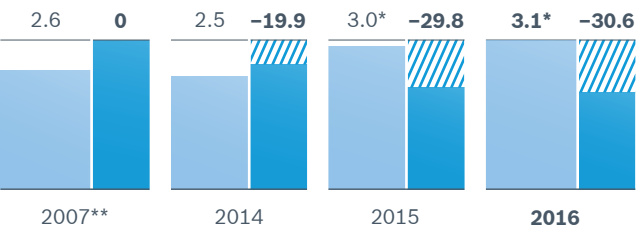
In 2016, the Bosch plant in Nuremberg was one example of this. The production site successfully reduced expensive peak loads, thus saving 700,000 euros in energy costs in their first year. First, experts at the plant conducted a systematic analysis of energy consumption using 360 electricity meters that were read several times each day. The experts used the results to come up with a range of measures: they replaced energy-intensive components and installed solar panels on the plant roof. In addition to this, the site rescheduled energy-intensive processes to night and weekend shifts with the aim of achieving more constant levels of energy utilization. Since then, cooling systems have been used at times when energy use is lower, while a newly installed cooling reservoir ensures that the required cooling process is available at all times. In 2016, the plant received the automotive supplier industry's "Partslife Umweltpreis" (Partslife Environmental Prize) for its progressive energy management system.

At other locations, too, analyses of energy use help achieve the energy and CO₂ reduction targets that Bosch has set itself. At the Bosch plant in Nonantola (Italy), one of the most important projects implemented in 2016 regards the heat recovery wasted from the cooling system of the compressors in production for heating purposes. This had a positive effect on gas and electricity

Key environmental figures

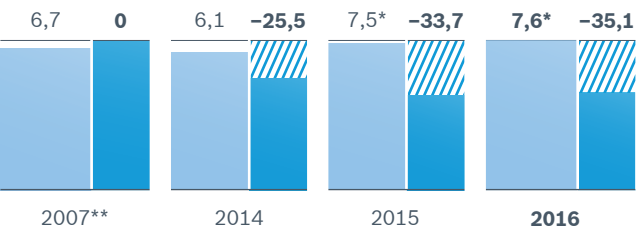
Development of CO₂ emissions Bosch Group 2007, 2014–2016

CO₂ EMISSIONS
■ absolute, in millions of metric tons
/// improvement relative to value added, in percent



Development of energy needs Bosch Group 2007, 2014–2016

ENERGY NEEDS
■ in terawatt hours
/// improvement relative to value added, in percent



* From 2015 onward, including BSH Hausgerate and Automotive Steering (AS)
** Base year

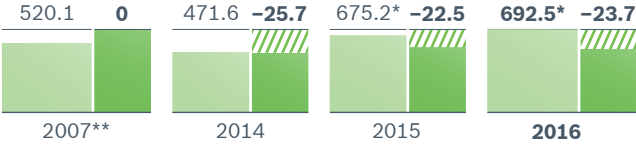
Manisa & Aegean Forests Bosch Termoteknik Grove

Volunteering blue and white collar employees continued to plant trees in the 7,000 sqm Manisa Termoteknik Grove on the İzmir highway.

In addition to the Manisa Grove, saplings were planted in Foça on behalf of employees in Istanbul and Manisa, to create another Bosch Termoteknik Grove in the area for commemorating the opening of the Thermotechnology Innovation Center on 1 December 2016. Bosch Termoteknik Isıtma ve Klima Sanayi Ticaret A.Ş. continues to display its environmental awareness through voluntary planting activities and the increasing number of groves planted.

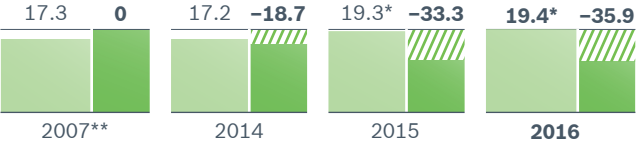
Waste volume development Bosch Group 2007, 2014–2016

WASTE
■ in thousands of metric tons
/// improvement relative to value added, in percent



Development of water consumption Bosch Group 2007, 2014–2016

WATER
■ in millions of cubic meters
/// improvement relative to value added, in percent



* From 2015 onward, including BSH Hausgerate and Automotive Steering (AS)
** Base year

Promoting integration



Last year, war, persecution, and poverty forced more people than ever to leave their home countries. According to the United Nations, there are currently 65 million refugees around the world. Once they have arrived in their host countries, the need to learn a new language and understand a different culture often poses special challenges. Bosch encourages peaceful and secure coexistence and helps refugees get off to a good start in their new environment.

In accordance with the wishes of its company founder Robert Bosch, Bosch has always striven to strike a balance between its business interests and its commitment to social well-being. The company's efforts with regard to the integration of refugees are one example of this: in 2015, associates donated 410,000 euros to the cause, which Bosch then doubled to 820,000 euros. In 2016 the money was used to fund 113 projects. Bosch also created 400 supplemental apprenticeship spots for refugees.

Social Solidarity Committee (SBE) Scholarship

Within the scope of the Social Solidarity Committee (SBE) activities, Bosch Termoteknik Isıtma ve Klima Sanayi A.Ş. Manisa Plant employees created a scholarship fund for primary, secondary and high school students through a certain amount of deduction from their wages.

Students who received scholarship for nine months during the school year were closely monitored in the project, they were contacted and encouraged to increase their GPA's.

A total of 36 students were supported in 2015-2016 with SBE scholarship.

2016 in review

JANUARY

Supporting healthy living

Various seminars were organized to increase awareness on healthy living at Bosch Turkey and Middle East Headquarter. In cooperation with Memorial Group, in these seminars tips on healthy living were shared with the employees and various subjects were discussed including insomnia and the heart. Employees received information in these seminars, and also had the opportunity to ask questions to the consultants.

Moreover, healthy snacks including fruit salad or granola bars are distributed in the Company every month to promote healthy living.



MARCH

Supporting the Turkish economy

Based on its established history and know-how in R&D, Bosch assumes a leading role in Industry 4.0 in Germany and all over the world. There are several operations conducted in Turkey within this scope. Bosch Turkey organized a visit to the plant and R&D center in Stuttgart. The aim was to observe the work being done on Industry 4.0 and R&D, as well as to exchange ideas.

Fikri Işık, former Minister of Science, Industry and Technology, Deputy Chairman of TOBB (Turkish Union of Chambers and Commodity Exchanges), Deputy Chairman of TÜBİTAK (Scientific and Technological Research Council of Turkey) visited the Feuerbach plant and Renningen R&D Center, and had discussions with Bosch representatives.



JUNE

Developing sustainable products

Manisa R&D Center, which exports innovative and competitive conventional and condensing combi boilers, manufacturing in 41 countries on 5 continents worldwide, received the 'Best R&D Center Award ' consecutively for the last 4 years, based on the performance index complied by the Ministry of Science, Industry and Technology. The center was also ranked at the top by the Turkish HVAC-R Industry Exporters Union (ISIB). Undertaking new initiatives with over 80 expert engineers, Manisa R&D Center also raised the bar in intellectual property rights and had the great achievement to apply for 11 patents in 2016. Manisa R&D Center continues to be a center of excellence in conventional combi boilers, condensing combi boilers and plate-type exchangers as well as in development and development tests, and continues to transfer technology worldwide.



NOVEMBER

Promoting technical education

Bosch Termoteknik Isıtma ve Klima A.Ş. initiated a new partnership with the Ministry of National Education. Within the scope of the protocol signed with the Ministry of National Education Department of Vocational and Technical Education on 18 November 2016, Bosch Termoteknik Akdemi undertook the renovation of the Installation and Air Conditioning Training Center. The Center will be used for the training of vocational school students, as well as for the trainings provided to partners of Bosch Termoteknik. Teachers from Vocational High Schools all over Turkey are invited to the Bosch Termoteknik Training Center to receive training on installation and air conditioning. Experts training teachers aim to enable the transfer of this know-how to students, who are the future of the industry. Programs shall also be initiated to support students of Vocational High Schools in finding training opportunities at the Bosch Termoteknik authorized services.

Settlement agreement for diesel vehicles in the United States

Bosch has entered into a settlement agreement with claimants in the U.S. in order to settle the most substantial part of the civil law proceedings pending in connection with Volkswagen, Audi, and Porsche diesel vehicles. The corresponding documents were filed with the competent U.S. court in California on February 1, 2017. It has been proposed that the court consider final approval of the settlement agreement in early May. The agreement was concluded with the plaintiffs' steering committee on behalf of proposed settlement classes. Bosch will pay a total amount of USD 327.5 million (approx. EUR 304 million). By entering into the settlement, Bosch neither acknowledges the facts as alleged by the plaintiffs nor does Bosch accept any liability. The settlement agreement concerns only civil law claims. As it has done since allegations have first been made public, Bosch will continue to defend its interests in all other civil and criminal law proceedings and to cooperate comprehensively with the investigating authorities in Germany and in other countries.



Bosch honored as an employer

The British BSH Bosch Home Appliances Ltd, a regional Bosch company, received the Top Employer Award 2016. The following reason was given for the honor: "The company has proven to be a pioneer in the area of human resources. It has shown forward-looking thinking with regard to its associates. The company has made continuous improvements to the work environment and consistently invested in associate development."

Activities – an overview



Robert Bosch GmbH and Bosch Sanayi ve Ticaret AŞ are members of the United Nations Global Compact since 2004 and 2014 respectively, and are committed to the 10 global principles in the areas of human rights, labor standards, environmental protection and fight against corruption. The table below offers an overview to the progress made in each of these 10 areas in the 2016 reporting period.

PRINCIPLES	BASIS/GOALS	ACTIONS	RESULTS
Human Rights Principle 1: Support and respect human rights Principle 2: No complicity in human rights abuses	Corporate Objectives 1,000 supplier audits by the end of 2020 Code of Business Conduct Basic principles of social responsibility at Bosch Bosch purchasing guidelines	Supply Chain-related Activities Environmental and occupational safety audits of the supplier portfolio	<ul style="list-style-type: none">614 audits conducted since 2010. Purchasing Guidelines Sanctioning suppliers Bosch Turkey Performance <ul style="list-style-type: none">Potential for improvement is discussed with suppliers and improvements are introduced.If suppliers fail to make improvements, they are sanctioned (removed). Bosch Turkey Performance <ul style="list-style-type: none">TEDAR (Supply Chain Management Association), of which Bosch Turkey is a founding member, aims to create awareness in sustainability through discussions in various topics (Social Gender Equality, Sustainability: The Inevitable Transformation in the Business World) which are open to all members.
		Purchasing Guidelines Sanctioning suppliers	
Working Standards Principle 3: Uphold freedom of association Principle 4: Elimination of all forms of forced and compulsory labor Principle 5: Abolition of child labor Principle 6: Elimination of discrimination	Corporate Objectives Women to fill 20% of management positions by 2020 Bosch Human Resources System (BHS) Guidelines for a flexible and family-friendly working culture “We are Bosch” corporate guidelines	Female Executives Increase of the share of women in management positions.	<ul style="list-style-type: none">Share of female executives in 2016: 15.4%. “Chefsache” Initiative In cooperation with other major German companies, Bosch founded the “Chefsache” (Matter for the boss) initiative, which aims to encourage women to take on management positions. Diversity Management Corporate diversity programs and initiatives to attract the best talent to Bosch were continued and expanded. RBg Associate Network The Bosch lesbian, gay, bisexual, and transgender network (LGBT) celebrated its tenth anniversary. women@Bosch For 20 years, the network has been committed to promoting the interests of women at Bosch around the world. Cultural Consultants Bosch associates act as experts for intercultural cooperation and advisors for colleagues who are going abroad.
		Female Executives Increase of the share of women in management positions.	

PRINCIPLES	BASIS/GOALS	ACTIONS	RESULTS
Working Standards Principle 3: Uphold freedom of association Principle 4: Elimination of all forms of forced and compulsory labor Principle 5: Abolition of child labor Principle 6: Elimination of discrimination	Corporate Objectives 20% share of female executives by 2020 Bosch Human Resources System (BHS) Guidelines for a flexible and family-friendly working culture “We are Bosch” mission statement	Associate aid Organization Bosch associates founded the “Primavera e.V.” aid organization in 1990, which helps disadvantaged children in the world’s poor regions access education and training. Refugee Integration Bosch is committed to integrating refugees and shows its commitment through the support of a number of initiatives. New Apprenticeships Bosch in the fight against youth unemployment in Europe. International Foundations Regional Bosch Group foundations in Brazil, China, India, and the United States. Cooperative Education Bosch apprenticeship model in more than 20 countries around the world. Flexible and Mobile Working Culture Bosch strives to promote a corporate culture that places greater importance on results than on presence, and to offer flexible working models. This not only helps families with young children or elderly dependents, but also associates who would like to pursue leisure activities or volunteer in their free time. Occupational Safety Introduction of an occupational safety management system based on the globally recognized OHSAS 18001 standard. Encouraging Girls Sparking girls’ and young women’s interest in technology. Supporting Specialists Bosch trains associates without university degrees to take on technical and commercial tasks at the company. This enables them to take over some tasks from their college-educated colleagues.	<ul style="list-style-type: none">The initiative counts 1,040 members, who support aid projects around the world In 2016, Primavera collected more than 620,000 euros in donations. Since its foundation, the organization has donated more than 9.5 million euros.In 2015, Bosch associates raised 410,000 euros for refugee aid; the company doubled the sum to 820,000 euros.In 2016, the donated amount was spent toward 113 projects, which were selected by a committee comprising representatives of Primavera e.V., the Group Advisory Board, the Group Committee of Executive Representatives, refugee aid coordinators, and the Corporate Citizenship department.The projects aim to help people who fled war and poverty become part of German society, for instance through language lessons, sports, leisure activities, and support with German bureaucracy. <ul style="list-style-type: none">Bosch upheld its commitment to invest in the future of young people in southern Europe, for instance with the “Train for the future” project, which gives school pupils insights into the working world. After a successful launch in Italy, the project was carried out in Spain for the first time in 2016.In 2016, Bosch expanded its occupational training initiative with an additional 75 apprenticeship spots . <ul style="list-style-type: none">In 2016, the Bosch Group donated a total of 17.9 million euros to charitable initiatives. The foundations spent an additional 7.6 million euros on different projects. <ul style="list-style-type: none">Bosch is training approx. 7,350 people around the world of which some 2,450 are outside of Germany. <ul style="list-style-type: none">The company offers more than 100 working-time models across hierarchical levels, among them part-time models, telecommuting, and job sharing.With the JobConnector, Bosch offers its associates a platform that allows them to find the right partners for job sharing or part-time work. The platform earned Bosch an HR Excellence Award in the “Best Use of Technology” category. The award is presented by the German Human Resources Manager magazine and Quadriga University of Applied Sciences Berlin. <ul style="list-style-type: none">Occupational safety management systems based on OHSAS 18001 have been introduced at all manufacturing sites, as well as at the larger development locations. Until now, 130 locations have received external certification, which equivalents to a 44% share.In 2016, the number of reportable workplace accidents per million hours worked was reduced by 2.7% (–61% since 2007). <ul style="list-style-type: none">Annual Girls’Days, which provides some 1,000 schoolgirls with insights into possible fields of work at a technology company.Participation in some 300 educational cooperation projects within the framework of the Wissensfabrik initiative. <ul style="list-style-type: none">750 associates have completed this program since 1999.The program lasts two years and comprises 50 training days.In addition to this, Bosch spent some 260 million euros on further training initiatives in 2016.

PRINCIPLES	BASIS/GOALS	ACTIONS	RESULTS
Working Standards Principle 3: Uphold freedom of association Principle 4: Elimination of all forms of forced and compulsory labor Principle 5: Abolition of child labor Principle 6: Elimination of discrimination	Corporate Objectives 20% share of female executives by 2020 Bosch Human Resources System (BHS) Guidelines for a flexible and family-friendly working culture "We are Bosch" corporate guidelines	Promoting Innovative Spirit Bosch offers a platform for innovative ideas, both internally with the corporate suggestion scheme, and externally with the organization of annual events such as the "Jugend forscht" state competition in Baden-Württemberg.	<ul style="list-style-type: none">For 25 years, Bosch has used the "Continuous Improvement Process" (CIP) to continuously enhance the company's efficiency and innovative strength.In total, some 22,000 associates submitted suggestions for improvement in 2016 for which Bosch paid a total of 7.7 million euros in cash bonuses.Some 130 girls and boys took part in the "Jugend forscht" state competition in Fellbach, Germany. Of 65 projects, 9 qualified for the finals.

Bosch Turkey Performance

A project on expat employees has been initiated in cooperation with Turkish-German University. The project aims to enable expat employees to transfer their experience and know-how to others in the organization.

- Home Office days are put into practice in the Bursa Diesel Plant.
- A reduction of 48% in the number of reportable workplace accidents per million hours has been observed in 2016 compared to 2013.
- "Sıra Bende" campaign was initiated in university campuses to promote the slogan 'Let's be remarkable'.
- Eight universities were toured in İzmir, Ankara, Istanbul and Bursa to meet candidate students, mainly from engineering faculties, who are confident of their creativity, who want to be heard with their ideas to create a difference, and who wish to lead the change. Within the campaign, 130 new ideas were found in 8 different universities, and online interactions were made with 604,475 people. Owners of the 10 most successful ideas were awarded for 'entrepreneurship promoting innovation and creative thinking' at Bosch Turkey and Middle East Headquarter.

These 10 students were taken to Kolektif House to experience entrepreneurship and innovation through the perspective of a corporate Company and as a start-up in Istanbul.

PRINCIPLES	BASIS/GOALS	ACTIONS	RESULTS
Environmental Protection Principle 7: Precautionary environmental protection Principle 8: Initiatives to promote greater environmental responsibility Principle 9: Development and distribution of environmentally-friendly technologies	Corporate Objectives CO ₂ emisyonlarında 2007 35% reduction of CO ₂ emissions (relative to value added) by 2020 over 2007 levels 6% reduction of waste volume and water consumption (relative to value added) at Bosch locations between 2016 and 2018 Guidelines for occupational safety and environmental protection Bosch Product Engineering System (BES) Bosch Production System (BPS) Design for Environment (DfE) "We are Bosch" mission statement	CO₂ Reduction Worldwide reduction of CO ₂ emissions at all manufacturing and larger development locations. Waste Volume and Water Consumption Reduced waste volume and water consumption at Bosch locations.	<ul style="list-style-type: none">30.6% reduction of CO₂ emissions relative to value added over 2007 levels.CDP reporting on greenhouse gas emissions.

Sustainable Products

- Investments in the further development of sustainable products.
- 5,340 patents filed worldwide.
- 55% of total R&D expenditure went toward developing sustainable products*.
- Environmental/Safety portfolio accounted for approx. 43% of total sales*
- The "GENESIS" purchasing initiative (Generate with Externals Synergies & Innovative Solutions) aims to promote early and targeted cooperation between product development and suppliers. In 2016, over 450 suggestions for innovation were submitted and can potentially be put into practice with Bosch applications.

Green Controlling Prize

- Award for the best practical solution in the effective management of ecological programs, projects, and measures.
- The prize is awarded by the Péter Horváth Foundation in cooperation with the International Association of Controllers (ICV).
- Bosch donated the prize money of 10,000 euros to the Primavera e.V. associate organization, which helps children in need.

ISO 14001

- Bosch locations certified in accordance with the international standard.
- All manufacturing and larger development locations introduced the management system. So far, 257 locations have received external certification, a share of 87%.

Climate-friendly Locations

- Progress made with regard to climate protection due to energy-efficient technology at a number of locations.
- At the Koramangala location in India, 155 tons of CO₂ were saved owing to the installation of a PV system.
- In May and June, the ISO-50001-certified Eisenach location in Germany covered 90% of its energy needs with renewable sources of energy.

Bosch Turkey Performance

- Measures including the replacement of 80V and 48V forklift chargers with state-of-the-art chargers, engagement of 9 COP advanced technology chills instead of 5 COP ones, installation of a washing system that prevents freezing in the days hydraulic erosion lines are shut down, and preventing air leakage led to saving 6000 MWh energy and avoiding 2600 tons of CO₂ emissions.

PRINCIPLES	BASIS/GOALS	ACTIONS	RESULTS
The Fight Against Corruption Principle 10: Work against corruption	Member of Transparency International e. V. (since 1995) Member of the Forum for Compliance & Integrity (since 2007) Code of Business Conduct	Compliance Hotline This is a portal where internal and external stakeholders are able to notify any compliance violations (non-compliance of business operations with laws and internal regulations).	<ul style="list-style-type: none">Associates (including interns and doctoral students), external parties (including temps and employees of external service providers), business partners (including suppliers, customers, or cooperation partners), and other third parties can report breaches of compliance.
		Compliance Training Actively promoting knowledge.	<ul style="list-style-type: none">Mandatory compliance training includes lessons on business ethics, product liability, anti-trust laws, and export controls.
		Bosch Turkey Performance <ul style="list-style-type: none">Within the "Compliance Communication" program, regular discussions were held in department meetings with the purpose of increasing employee awareness about potential dilemmas, defining risk factors specific to their work and to encourage discussion of conflicting goals in their daily business.	

* excluding BSH Hausgeräte

Further key principles for sustainable activities in the Bosch Group: In 2010, an office, expert and steering committee were founded. Since then, these bodies have been responsible for the effective implementation of all of the Group's sustainability-related activities.

Scope of reporting: The scope of the information is indicated in the texts, key figures, and targets. This report presents a summary of the Bosch Group's current sustainability-related activities across sectors and divisions. It therefore serves as a progress report as part of the group's membership of the UN Global Compact. The reporting period covers January 2016 to spring 2017. The cut-off date for key figures is December 31, 2016. The editorial deadline was March 1, 2017

Memberships (examples): B.A.U.M. (1990), Transparency International (1995), econsense (2000, founding member), United Nations Global Compact (2004), Global Reporting Initiative (2006, GOLD Community member), Forum Compliance & Integrity (2007)

Other sustainability reports: WIN-Charta Baden-Württemberg (2015), German Sustainability Code (2014), orientation to GRI standards (2016)

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Bosch Sanayi ve Ticaret A.Ş.
Aydınevler Mah. İnönü Cad.
No:20 Ofispark A Blok 34854
Küçükyalı
Maltepe-İstanbul
Türkiye
Telefon +90(216)4320000

Bosch Turkey and Middle East Corporate Communications Director:
Esra Koç

Contact:
Corporate Communications Responsible
Seda Acar
seda.acar@tr.bosch.com
Telefon +90(216)4320133

Project team:
Esra Koç
Seda Acar

Realization:
Ketchum Pleon GmbH
Düsseldorf

Additional information on Bosch and its commitment to sustainability is available here:
bosch.com
bosch.com.tr
sustainability.bosch.com
sustainabilityblog.bosch.com
sustainability-report.bosch.com

Robert Bosch GmbH

Postfach 10 60 50
70049 Stuttgart
Germany
www.bosch.com