

# Corporate Responsibility at PHOENIX CONTACT

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#### Contact

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# Company Presentation

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# Corporate Responsibility Activities

Economy Ecology Employee Affairs Community Affairs

For the sake of readability, masculine pronouns are always used in this document to refer to people. However, these references are intended to include both genders.

# Phoenix Contact



#### **Company presentation**

Phoenix Contact is a worldwide market leader for components, systems, and solutions in the fields of electrical engineering, electronics, and automation. The family business currently employs more than 14,000 people worldwide and achieved a turnover of 1.77 billion euros in 2014.

The company headquarters are in Blomberg, Germany. The Phoenix Contact Group includes ten companies in Germany plus over 50 independent sales subsidiaries.

The company's international presence is further strengthened by 30 subsidiaries in Europe and abroad.

Our extensive worldwide manufacturing capability in ten countries means that it is not just screws and plastic and metal parts that are produced in-house, but also highly automated assembly machines.

The product range consists of components and system solutions for energy supply including wind and solar energy, device manufacturing and machine building, as well as control cabinet manufacturing. With a wide range of terminal blocks and special terminal blocks, PCB terminal blocks and connectors, cable connection technology, and installation accessories, we offer innovative components. Electronic interfaces and power supplies, automation systems based on Ethernet and wireless, safety solutions for people, machines, and data, surge protection systems, as well as software programs and tools provide comprehensive systems for installers and operators of systems as well as device manufacturers. Markets within the automotive industry, renewable energy, and infrastructure are supported by means of consistent solution concepts, ranging from engineering and maintenance to training services, in line with specific needs.

Product innovations and specific solutions for individual customer requirements are created in the development facilities at our sites in Germany, China, and the USA. Numerous patents emphasize the fact that many developments from Phoenix Contact are unique. Working closely with universities and scientific institutes, technologies of the future such as E-Mobility and environmental technologies are researched and transformed into marketable products, systems, and solutions.

### **Corporate Principles**



The company's mission to "create progress with innovative and inspiring solutions" includes the sustainable design of products and solutions, sustainable production, and sustainable economic management. The company responds to future megatrends, creating "Solutions for the Future".

The Corporate Principles also provide our clients, business partners, and employees with the basis for a common "...spirit of mutual responsibility, a partnership borne of friendliness and honesty", based on trust and equality. This aspect of Corporate Culture is supported by the strategic goal that by 2020 "PHOENIX CONTACT is the most trusted brand in our industry". Our bi-annual "Great Place to Work" employee survey measures our current status and is accompanied by an appropriate follow-up process. This enables employees to participate and contribute their suggestions.

#### **Corporate Responsibility**

Corporate Responsibility – that is to say, sustainable economic management and conservation of resources as well as social responsibility for employees and the regions – has been one of PHOENIX CONTACT's commitments as a family company for many decades. Our 2005 commitment to the "United Nations Global Compact" with its ten principles for upholding human rights and labor standards, for protecting the environment, and for avoiding corruption was a natural step. In addition, the company has observed the "ZVEI Code of Conduct for Corporate Social Responsibility" (the code for the German Electrical and Electronic Manufacturers' Association) since 2009.

The principles of the "United Nations Global Compact" and the "ZVEI Code of Conduct for Corporate Social Responsibility" are an integral part of the Corporate Principles and are firmly anchored in the Corporate Strategy which applies globally.

# History Corporate Responsibility CR-focus

 $\underbrace{2005 \ 2006 \ 2007 \ 2008 \ 2009 \ 2010 \ 2011 \ 2012 \ 2013 \ 2014 \ 2015 \ 2016 \ 2017}_{Code \ of \ Conduct}$ 

"In terms of corporate responsibility, Phoenix Contact is committed to Corporate Compliance at all of its sites, i.e., to compliance with all applicable statutory regulations as well as to Corporate Social Responsibility, ensuring basic human rights, observing labor standards, and preventing discrimination as well as forced and child labor. The active provision of health and occupational safety for all employees is an integral part of our corporate culture."

The figure below provides a brief overview of our commitment to Corporate Responsibility. Projects are carried out based on determined Corporate Responsibility focal points, currently in the field of employee affairs "Health Management - Healthy employees are able to perform in an excellent way – they are an important precondition for the success of Phoenix Contact". The projects are introduced under "Employee Affairs".

# Economy



Based on its mission statement to "create progress with innovative and inspiring solutions", PHOENIX CONTACT embraces global challenges and is constantly developing new technologies and products as "Solutions for the Future" for various megatrends: rising energy consumption combined with the scarcity of resources, the increasing urbanization of the growing world population, the threat of climate change, the protection of water supplies, and renewable energy.

#### Grid monitoring and protection controller



For example, in order to ensure grid stability for renewable energy systems, the grid monitoring and protection controller was developed in 2014. Conventional forms of power generation are to be replaced gradually by renewable energy sources. On the one hand, this has positive effects, as it increases independence from imported oil, gas, and coal as well as reducing CO<sup>2</sup> emissions during combustion. On the other hand,

it creates new technical challenges. One example is the need to provide stable mains operation so that the generated energy can be transported to consumers reliably and with a high degree of quality. However, wind energy and photovoltaic systems depend on the fluctuating power of the wind and sun respectively, making it almost impossible to predict the energy that will be generated. The operators of a power grid in the modern energy situation therefore face several challenges. The grids must therefore become more intelligent. Additional requirements are set by technical directives for power generation systems, for example VDE-AR-N 4105 which stipulates the use of type-tested grid and plant protection. This grid and plant protection only permits the power generation system to remain in the grid if both the voltage and frequency are within a defined tolerance range. On the other hand, the system must be disconnected from the grid immediately if the measured values are outside the tolerance range. The entire process from the appearance of the error to measurement and then electrical isolation of the power generation system from the grid using coupling switches should only take 200 milliseconds. The grid and plant protection is an intelligent safety relay which acquires the mains frequency and voltage, evaluates the values, and disconnects from the grid in the event of an error using coupling switches.

PHOENIX CONTACT has met these requirements in the grid monitoring and protection controller (GMPC), which offers grid protection functions and additionally provides the measured values via PROFINET as well as Modbus/TCP. The GMPC is a modular solution which consists of various components from the broad PHOENIX CONTACT product portfolio.

#### Lightning monitoring system



The Phoenix Contact lightning monitoring system (LM-S), which won the Hermes Award, detects lightning strikes and analyzes the current strength, voltage, and specific energy of lightning surge currents (COP 2012). It consists of sensors for the down conductors of a lightning protection system and an evaluation unit. The measured data can be accessed at any time and from any location via the integrated web interface.

It provides information about the actual load on the affected system and enables preventive maintenance. If lightning damage to the system is indicated, rapid measures can be initiated to prevent consequential damage and downtimes. If the load is classified as non-critical, this saves unnecessary maintenance or service interventions. In buildings that do not have a significant



LM-S can be used for lightning research. Lightning strikes cause considerable damage to buildings and systems. Depending on the energy transferred with the lightning strike, this can involve considerable damage and destruction, which may lead to secondary damage. Tall buildings or buildings with a large surface area or in an exposed location are particularly susceptible to lightning strikes. Following the first implementation of the lightning monitoring system on the Hermannsdenkmal monument in Detmold, Germany, it has since been installed on eleven interesting and world-famous buildings, including St Mark's Campanile in Italy, the Great Belt Fixed Link bridge in Denmark, the GMM Tower in Bangkok, the Swaminarayan Akshardham temple in India, the Meridian Gate in China, the Burj Khalifa in the United Arab Emirates, the cable car on Table Mountain in

South Africa, and the Strahov Monastery in the

Czech Republic.

risk but are in locations affected by storms, the

# Ecology



The sustainable design of our sites, processes, and equipment as well as the careful use of resources is also an integral part of our Corporate Strategy. The introduction of the energy management system presented in COP 2013 led to an expansion of the characteristic energy data in 2014. The energy team at the German production sites continues to promote the careful use of resources. In 2014, for example, more conventional lights were replaced by LED lighting.

#### New combined heat and power plants

In the third quarter of 2014, four new combined heat and power plants were installed at Phoenix Contact across Germany; two at Phoenix Contact Electronics, one at Phoenix Feinbau, and one for our associate company, Phoenix Testlab. The combined heat and power plant at Phoenix Testlab, for example, has an electric capacity of 360 kW and therefore generates approximately 2.6 million kWh per annum, enough to supply around 700 households.

In addition, at the Blomberg site Phoenix Contact operates three further combined heat and power plants, with a total electric capacity of 3 MW. This enables Phoenix Contact to cover around 50% of its power requirements. Another positive aspect is the use of the generated heat. Through the parallel production of power and heat, the rate of utilization of primary energy (in this case, natural gas) exceeds 85%.

The gas-powered combustion engine also reduces  $CO^2$  emissions. In 2014, the three combined heat and power plants at the Blomberg site saved around 10,500 t of  $CO^2$ .

The absorption chillers convert the heat into cold, enabling a reduction in the use of compression chillers. This reduced power requirements by around 800,000 kWh in 2014.

#### **Replacement of pumps**

A new project launched in 2014 is the replacement of pumps for warm and cold water supply. The old unregulated pumps are being replaced successively by new high-efficiency pumps. The retrofitting of four buildings at the Blomberg site is expected to provide savings of around 80,000 kWh per annum. In addition, a new central cooling plant has been built, which uses pumps fitted with IE4 engines throughout. Savings of around 75,000 kWh per annum are expected here.

# Employee Affairs



A good working atmosphere and optimum working conditions for its employees are of great importance to the company. This is stated clearly in the Corporate Principles.

The management model introduced in 2012 supports this approach of mutual trust, with established values such as "role model", "trust", "respect and appreciation" as well as "growth and development". The behavior of supervisors in terms of this management model particularly supports our strategic direction of "Excellence in management and communication".

Various measures and tools are offered in the fields of basic and further training, health management, and work-life balance. These are continually being developed, based on the needs of employees.

#### **Corporate Responsiblity focus on Health Management**

The projects for the 2014 Group-wide Corporate Responsibility focus on Health Management include a wide range of measures from the fields of sport and leisure, healthy eating, working environment and conditions, medical activities, and strategies for corporate health management.

#### Activities in subsidiaries

#### **Russia:**

a wide range of measures based on the strategy to support employee health and well-being, such as fresh water and welfare facilities.



#### **Brazil**:

monthly newsletters inform employees about health measures and increase awareness of their own health.

#### China:

a comprehensive health management program includes a philosophy guide in order to continuously improve processes, carry out preventive measures, and evaluate progress.

#### France:

the "Health, safety and working conditions committee" promotes a regular exchange on health measures and introduces appropriate initiatives.



#### India:

regular "Health Check-Up Camps" are offered at the sites to determine the health of employees. The camps are led by a team of doctors from renowned hospitals.

#### Switzerland, Taiwan, Denmark:

like the Indian subsidiary, the subsidiaries in Switzerland, Taiwan, and Denmark also offer medical check-ups or vaccinations for their employees.



#### USA:

the "Breast Cancer Prevention" campaign is actively supported with the "Rails of Hope" terminal blocks.



#### **Brazil**:

as well as the US subsidiary, the Brazilian office also supports the "Pink October & Blue November" campaign.

#### Singapore:



the subsidiary is involved in the "Vision Walk", an initiative that supports disabled people in sports activities. This raises awareness of personal health matters and shows social responsibility.

#### The Netherlands, Hungary:

the subsidiaries in the Netherlands and Hungary are offering their employees the opportunity to take part in company races, including the 580 or 520 km Roparun from Hamburg or Paris to Rotterdam.

#### Switzerland, Denmark, Malaysia and Singapore:

to increase awareness of healthy eating, a range of activities are being introduced in the subsidiaries; "Fruit of the month", "Rethink your Drink", "Catering only Water" or a monthly healthy breakfast for all employees, which also develops team spirit.

#### Norway, Canada, Switzerland, Austria, Hungary, Romania:

to aid relaxation and support mental health, massages, relaxation rooms, stress analyses or "Do not disturb" signs are available. In Romania, regular team events encourage a sense of belonging and support the corporate culture.

#### Japan, Austria, Hungary:

as well as safe driving training, in the Japanese subsidiary there is particular focus on a safe working environment and preventive measures for possible earthquakes.

#### Headquarters



The health management activities at headquarters have already been mentioned extensively. In 2014, the Actiwell center celebrated 10 years of operation. At the same time, Actiwell 2.0 marked the next phase for the health center: a new supplier is providing a wide range of courses, rehab exercise classes, and wellness activities, such as a sauna and massages. Extended opening hours and the close proximity to residential areas popular with employees makes participation easier than ever. In addition, last year saw the opening of "Actiwell on site" with relaxation chairs and an increased range of massages available directly on site, offering employees the opportunity to relax during the workday.

# Community Affairs

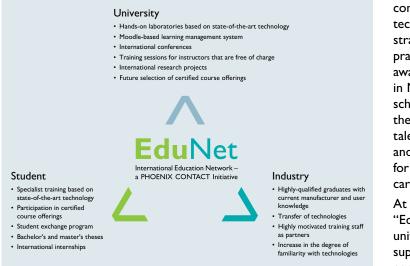


PHOENIX CONTACT is committed to its regions on many levels. We have already introduced some of these in previous COPs: the "Initiatives for Employment" or the "Civic Foundation for the Future of Blomberg". The commitment to education and training is particularly important to Phoenix Contact because investment in education and training is an important prerequisite for a successful future. Qualified employees are the backbone of growing economic regions and innovators within their companies. Keeping pace with state-of-the-art technology, understanding technical correlations, and identifying technological trends are the keys to success.

#### Committed to education and training

Enthusiasm for technology and promoting young talent are important to the company. Phoenix Contact's commitment to education and training is wide-ranging: it begins with basic technical education in daycare centers and elementary schools.

School children learn about complex technical relationships using teaching aids. The teaching aids are designed to explain the basics of electrical engineering with the diverse focal points



of automation and communication technology in a straightforward and practical way. This awakens a child's interest in MINT subjects at school. They discover their inclinations and talents for technical jobs and can set the course for their chosen technical career.

At university level, the "EduNet" international university network supports exchange and cooperation between universities and industry in the field of automation technology (COP 2013). This network enables partner universities to integrate current knowledge about automation technology from manufacturers and users into their instruction. This ensures that automation topics are conveyed in a comparable way and to the same level throughout the courses. Practical studies in laboratories that have been designed jointly provide a smooth transition into the professional world for students, across all industries.

#### **Technology Competence Center**

To effectively train skilled workers for certification in a practice-oriented manner, it is important that educational institutions have instructors with appropriate practical knowledge and corresponding labs.

With the three-stage concept used in the Technology Competence Center, students learn the basic principles of individual technologies in the Training Centers. The Application Centers with comprehensive large-scale systems are designed for students who in future will be responsible for starting up, maintaining, and optimizing various systems. As a result, the functions and procedures demonstrated by the training equipment are closely linked to the requirements of local industry. In the Development Centers, technologies are evaluated and the functions of systems are optimized. With this three-stage concept, the educational institutions have achieved a high level of acceptance among industry partners. In the various centers, students and pupils gain practical competencies, which help them make a quick entry into working life and enhance their career opportunities.

Three Competence Centers have already been established in Honduras, Vienna, and Shanghai.

#### **Training Center, Honduras**



At our training partner IPC in San Pedro Sula, students and technicians from companies follow a modular study concept to learn about topics in industrial electronics, control cabinet manufacturing, safety technology, and surge protection technology, for example.

#### **Competence Center, China**



In the Application Center for Automation Technology at the CDHAW (Chinese-German University of Applied Sciences) at Tongji University in Shanghai, instructors and students work intensively on the individual and overall functions of a complete production plant with robotics and CNC technology, including networking, visualization, and automation technology.

#### **Training and Competence Center, Vienna**

The FH Campus Wien University of Applied Sciences has a Training Center and an Application Center. Hands-on lessons on the basic principles of safety technology for machine and system safety, and applications from the photovoltaic sector, are taught in specialized laboratory classrooms.



#### xplore – New Automation Award

The "xplore – New Automation Award" international technology competition encourages commitment and promotes enthusiasm for technology. Project teams of school children, students, vocational trainees, and young workers take a creative approach to automation technology and develop innovative solutions on various different topics. The competition acts as a catalyst for promoting enthusiasm for technology in young people (COP 2012).

#### New Automation e.V.

In Germany, New Automation e.V. acts as the interface between educational institutions that are looking for expert support in terms of practical technical training and German, globally active industrial electronics companies that want to develop in-depth user knowledge in young people (COP 2013).

## Aubicom – "Landmark in the Land of Ideas"



Another educational project from Phoenix Contact won an award in the "Land of Ideas" competition: "Aubicom", the cooperative program to boost educational competence. Under the topic "Innovations across Germany – rural areas reimagined", the project offers an answer to the question of how extracurricular remedial education in the company can prepare young people for professional life.



Each year, around 15 tenth graders participate in the joint project between the Hauptschule Blomberg and Phoenix Contact, in order to boost their educational competence. Company trainers and high school teachers work together to provide the students with expert knowledge and social skills. This helps to prepare the students for the world of work.

#### Fund-raising campaign



A special fund-raising campaign for Phoenix Contact sparked the interest of our Press and Public Relations team. In the past, the company usually gave small gifts to presenters at trade fairs and at Christmas. In 2010, the team decided to change this tradition and to donate to a good cause instead. At this time, the children's hospice of the Bethel Institution was being renovated and was looking for donations to

the building fund with prominent support. This issue touched Angela Josephs, spokesperson for Phoenix Contact, and contact was successfully established with the institution.

In the years that followed, presenters were informed of each new donation on the occasion of a trade fair or at Christmas, and the initiative was met with great approval and even emulated. In addition, the proceeds from an auction of bags produced from banners in a non-profit workshop were also donated to the Bethel children's hospice. Over ten drives, the department has donated a total of 13,000 euros to the children's hospice, securing not only the finance for the building project but also for subsequent operation. In fall of 2014, a donation was made for the first time to the "Don Bosco Mondo" foundation, which runs projects that support children in areas of conflict and regions affected by Ebola.

# Rice Bucket Challenge in Dubai



Another special drive took place at our subsidiary in Dubai. Inspired by the Ice Bucket Challenge (a campaign to raise awareness for the neurodegenerative disease amyotrophic lateral sclerosis (ALS) that encouraged donations to research and combat the disease), employees moved away from cold water and instead performed a "Rice Bucket Challenge". Employees bought a pack of rice

and gave it to a person in need. The employee then nominated a new person for the next day. Photos of the donations were used to document the employees' campaign.