

Corporate Social Responsibility at Phoenix Contact

Communication on Progress 2013



Contact

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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 the worldwide market leader of components, systems, and solutions in the area of electrical engineering, electronics, and automation. Today, the family-owned company employs 13,000 people worldwide and had a turnover of 1.64 billion euros in 2013. The corporate headquarters is located in Blomberg in North Rhine-Westphalia, Germany. The Phoenix Contact Group has 9 companies as well as 50 sales subsidiaries. In addition, the worldwide presence is consolidated by 30 agencies in Europe and overseas.

With a high vertical range of manufacture, Phoenix Contact has production sites around the world. In addition to screws, plastic and metal parts, highly automated assembly machines are also built in-house.

The product range consists of components and system solutions for energy supply including wind and solar, device and machine engineering as well as control cabinet engineering. A diverse product range of modular terminal blocks and special-purpose terminals, printed circuit terminal blocks and plug connectors, cable connection technology and installation accessories offers innovative components. Electronic interfaces and power supplies, automation systems based on Ethernet and wireless, safety solutions for man, machine and data, surge protection systems as well as software programs and tools provide installers, operators of systems, and device manufacturers with comprehensive systems. The automotive, renewable energy and infrastructure markets are supported by holistic solution concepts including engineering and training services and additional service features according to their specific needs.

Product innovations and specific solutions for individual customer requests are developed at locations in Germany, China, and the United States. Numerous patents underline the fact that many developments from Phoenix Contact are unique in their own right. In close cooperation with universities and scientific institutes, future technologies such as e-mobility and environmental technologies are explored and integrated into products, systems, and solutions for the market.

Corporate Principles



The company guidelines are - as already described in previous Communication on Progress reports - laid down in the Corporate Principles and offer all employees, clients, and business partners the basic outline for a common, "..spirit of mutual responsibility, a partnership borne of friendliness and honesty", based on trust and equality. The strategic target for 2020 is based on these principles -

"Phoenix Contact is the most trusted brand in our industry". This includes a management and company culture based on trust, which is regularly evaluated by the employee survey "Great Place to Work". The employee survey is carried out every two years, which was the case in 2013. In the following year, employees are involved in the development and implementation of measures based on the survey, in order to improve the workplace culture in the respective areas of the company.

Corporate Social Responsibility



Corporate Social 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. For this reason, in 2005, the company began to participate in the "United Nations Global Compact" with its ten principles encouraging adherence to

human rights and labor standards, as well as protection of the environment and prevention of corruption. Furthermore, in 2009, the company committed itself to the "ZVEI Code of Conduct for Corporate Social Responsibility". The Code of Conduct, which was developed by the German Electrical and Electronic Manufacturers' Association, includes civic commitment as well as the Global Compact areas of activity.

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 across the board.

Phoenix Contact's company commitment is demonstrated through many projects, initiatives, and products from the fields of economy, ecology, and social aspects, for employees, as well as society. Some of these will be presented later on.

Economy



Phoenix Contact sets itself global challenges in line with the Corporate Mission "We create progress with innovative and inspiring solutions", and constantly develops new, innovative technologies and products for the following sectors:











One of the company's focal points is infrastructure and it is responding to increasing energy consumption as resources are becoming scarcer, the increasing urbanization of the growing world population, the threat to the world climate, and the safeguarding of the water supply and renewable energies.

In the following, extracts on the topic of E-Mobility as well as possible technological solutions for megacities are presented.

E-Mobility



For at least three years, E-Mobility has been on the agenda at Phoenix Contact. This can be seen, for example, in the company's participation in the national platform on the topic of E-Mobility, where 150 representatives from the fields of science, economics, politics, and associations take part. As the outlook for the future is positive, the company founded a subsidiary

on January 1, 2013. Phoenix Contact E-Mobility supplies charging plugs, accessories for charging stations, from the control box to the controller right through to safety monitoring. Currently, all key electric automobile models made by German automotive manufacturers are equipped with Phoenix Contact accessories, for example, the VW e-up. The modern charging plug as a combisystem can not only be operated with alternating current but also with fast technology, which means it only takes ten minutes to charge, rather than eight hours.

Battery Swapping



One area of application for E-Mobility is its use in transport networks. The buses which are used in city or local transport generally follow predefined routes and do not travel long distances, so that the problems presented by long distances and battery changes do not come to bear. These are ideal conditions for using battery-operated vehicles. Battery swapping is particularly suitable, due to the short downtimes of

the buses. While the buses travel their routes with the first set of batteries, the second set of batteries can be charged in the depot. For the project in the Chinese city of Qingdao, bus downtimes for charging purposes were to be kept to an absolute minimum. For this reason, planners opted for the concept of battery swapping.

At the swapping stations, the empty batteries are replaced by fully charged ones while the bus is in a bay, with a robot on each side of the bus. The battery units are swapped for newly charged ones in around seven minutes, and the bus can set off again with a "full tank".

The whole system is monitored by the control center in the charging station. Each battery and its current operating data can be accessed at any time using the ID, and the batteries in the buses on the go are also monitored via telemetry and the Internet. Each bus has its own batteries and charging bays.

The fast battery swap is essentially made possible due to a robust and reliable plug-in system which Phoenix Contact developed especially for long-term use in electric vehicles. Since the batteries are exposed to a heavy burden from multiple charges and usage during the course of a day, the charging process must be gentle - but at the same time, fast. As a result, it was important that the connector solution featured an integrated compensating mechanism which enables automated insertion under defined deviations.

The batteries of around 200 buses are replaced two or three times each day at the changing station. There are 18 batteries for each bus - nine for driving and nine for charging. The distance the buses can cover is approximately 120 kilometers.

After a short trial period, the buses have been on the road and covering the public transport network since June 2011. Since then, over 6000 plug pairs have been delivered to China. They are currently only produced in Blomberg, but soon they will also be made in Nanjing. The batteries themselves come from China, where the connectors are also installed.

More than 100,000 battery replacements have taken place up to now – and in the meantime, over 2 million kilometers have been covered by this system. So far, Phoenix Contact connectors have played their part perfectly.

Electrical and automation technology for megacities



Today, megacities are the epitome of the rampant proliferation of urban concentration because many challenges - environment, climate, energy, nutrition, raw materials - have a greater impact there than in smaller towns or in the country. The social consequences of urbanization in megacities are also more evident. Electrical and automation technology can make a decisive contribution to solving current problems.

A globally active company, which has technical solutions for the infrastructure problems that megacities present, can build upon the political and social ambitions of national institutions. This is because functional infrastructure - water and wastewater, conventional and renewable energy, public and private transport - is important for ensuring that urbanization goes hand in hand with industrial development and financial growth. As such, electrical engineering and automation is becoming ever more important. Regardless of whether drinking water is acquired via wastewater or desalination plants from sea water; automation, control, MSR, and remote control technology increase the cost-effectiveness of the systems and the quality of the drinking water and industrial water. So that acquired drinking water is not lost, the technical monitoring of the supply systems must be improved and continuously optimized.



Distributed renewable power stations - wind power, solar plants, combined heat and power - use countless automation components in control and communication technology. The networking of distributed energy suppliers combined with the integration of loads, including that of electro-vehicles at charging stations, requires intelligent network structures, such as those that exist in industrial automation

- Smart Grids. And energy-efficient integrated building management functions just as poorly without automation technology as energy-efficient operation of machines and industrial systems.

Water and wastewater, renewable and conventional energies as well as traffic technology are important target markets for Phoenix Contact. With regional development centers, production sites in the world market regions as well as a worldwide sales presence, the company offers technology and solution expertise on site. Solutions and systems from Phoenix Contact are used around the world to help keep the problems in megacities under control.

Ecology



The Corporate Mission is also reflected in the strategy for developing and shaping the sites, processes, and equipment as well as a respectful approach to resources. Production processes are handled efficiently, the energy supply is extended, and energy efficiency is continually improved. Similarly, renewable energies are also put into action, such as the use of solar energy, ground source heat, and E-Mobility.

Wave Trophy



In the Communication on Progress Report 2011, we already reported on adding electric vehicles to the vehicle pool. In 2013, for the first time, two employees took part in the "Wave Trophy 2013" - an electric vehicle rally covering a distance of 1,800 kilometers in just 10 days, through the Alps,

from Vienna to Zurich. A decisive factor here is the distance that the vehicle can cover and the driving style, as sometimes the stages were longer than the range calculated for the car. As such, driving in an energy-saving, efficient manner was essential.



There were various judging criteria for the rally, ranging from departing on time, to the appearance of the vehicle, as well as how the topic of E-Mobility was presented at a school. In addition to the fun had by both drivers, the event provided good marketing coverage of the topic thanks to the strong media presence. At the end of the Wave Trophy, the team

from Phoenix Contact were very pleased to have finished in first place, out of 388 vehicles, and are looking forward to participating again in 2014.

Energy management system

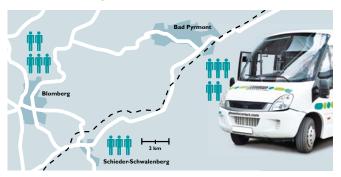
To further increase energy efficiency, the energy management system DIN EN ISO 50001 was successfully introduced in 2013 at Phoenix Contact's German manufacturing sites Blomberg, Bad Pyrmont, Lüdenscheid, and Herrenberg, and this was officially confirmed by DQS GmbH (the German society for certifying management systems).

The energy management system includes a continual improvement process (CIP), which will take on a key role in the future. All company processes must be taken into account here, from the purchase of energy-efficient systems, production equipment, and building installations, right through to manufacturing processes.

Shuttle service

At the Blomberg and Bad Pyrmont sites, the main activity is the production of electromechanical and electrotechnical products. For this reason, due to shared meetings and coordination, a regular method of work transport was set up between the two sites.

Furthermore, two years ago, Phoenix Contact purchased another site in Schieder, halfway between the two, where it founded the Phoenix Contact E-Mobility subsidiary.



Up to now, employees travelled between sites using company vehicles from the respective vehicle pool, which they could book individually, depending on the location of their appointment. 10 vehicles were applied for daily. For 20 trips of 20 kilometers, the vehicles cover 400 kilometers. In order to better control and coordinate the constantly

increasing amount of internal traffic, a shuttle service was introduced on July 1, 2013, with minibuses running between the sites every hour from 8:00 to 17:00. For the time being, this has been launched as a pilot project and should provide concrete figures regarding savings.

Employee Affairs



The welfare and development of employees, their growth, and an excellent working atmosphere are aspects which are particularly close to Phoenix Contact's heart. 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". Anchoring the values of this management model into the behavior of supervisors 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 requirements of employees.

Basic and further training



The growth and development of employees is another important aspect of our company culture. Only by ensuring the long-term employability of our staff, can we guarantee our future innovative strength and the continued success of the company. For this reason, the qualifications on offer are continually developed and expanded.

With the construction of the new further education center in 2014, the company is also making an enormous investment in order to safeguard operations and reduce the risk of a skills shortage.

"Lean production manufacturer" qualifications

In 2013, qualifications for "Lean production" were drawn up and launched for a target-group of approximately 700 skilled workers, trainees, and management staff, in the Industrial Electronics manufacturing division.

By taking part in the series of qualifications to be a "Lean production manufacturer", the participants can play an important role when tackling lean principles in their area of production. They learn about the most important lean methods and tools and are able to apply these to their work. By adhering to a detailed procedure, this results in resounding operational improvements.

Family day



In line with the slogan, "We are Phoenix Contact", in 2013, our employees once again had the chance to show their family members and friends round the company in Blomberg, providing them with an opportunity to see the work stations, production halls, and office buildings. The organizers had put on many attractions for visitors both young and old. On the show stage, the "Krawalli" circus began with a

display for kids and families, before the Phoenix Contact band put on an amazing performance, with lead singer Prof. Dr Gunther Olesch and "Just Pink". Not only did the Phoenix Contact employees and their families enjoy a wonderful day, the proceeds from the sales of Phoenix Contact bags were given to the Bodelschwingh Foundation Bethel. The bags were the result of another good idea. As the banner from the last family day in 2008 was no longer able to be used, the organizers had the idea of sewing individual bags out of the special weatherproof and windproof fabric. This task was assigned to the "Gottessegen workshops", a charitable social therapy establishment in Dortmund, which already had experience in producing such shopping bags.

The family day, which takes place every five years, was once again a huge success, with great weather, a fantastic atmosphere, and 23,000 visitors.

Healthy measures



In previous Communication on Progress Reports, we have frequently mentioned measures relating to health management at work. In 2012, the "occupational employee advice service" was introduced at the Blomberg site and such offers are continuously being expanded at "Actiwell" for the Blomberg and Bad Pyrmont sites. Along with these offers, many employees also participate in company sports matches

or runs; in 2013, 400 people took part. The Executive Board is also involved and is a great example of enthusiasm for sport.

Health management at work is also an important topic at the international subsidiaries. For example, the Chinese subsidiary offers sports groups in various fitness centers for basketball, football, table tennis, badminton, and tai chi chuan and also organizes sports events. In Poland, sporting gatherings are usually linked to a team event such as a bicycle ride or company runs, followed by a picnic. The Swiss employees can count on the use of ideally configured work desks.

Community affairs



Phoenix Contact is committed to its regions on many levels: whether that's active collaboration in initiatives such as "Blomberg Marketing", "Initiatives for Employment", the "Civic Foundation for the Future of Blomberg", or the promotion of art, culture, and sport. Sponsoring the regional handball league team "TBV Lemgo" is also part of this commitment. In addition, there are some events such as the annual "Phoenix Contact Colloquium" and the "Women at work" day which also takes place on a yearly basis.

Furthermore, Phoenix Contact is a member of the new "New Automation e.V." initiative, founded by ZVEI and German industry. The organization is to build on the active cooperation between companies, schools, and universities across the country.

Educational initiatives are also taking place on an international level. The "International Education Network" initiated by Phoenix Contact, the "Xplore - new automation award" as well as the "Nanoline Contest – German-American Automation Contest" were founded in order to spark youngsters' enthusiasm for technology.

EduNet – International Education Network



Phoenix Contact is committed to education and training and takes this responsibility very seriously - both within the company and on a wider social scale. Phoenix Contact set up the EduNet initiative in 2007 in order to promote specialist training in automation technology. The main objective is international cooperation between universities and industry.

The transfer of knowledge, the exchange of professors and students as well as joint research and education projects are all supported, as in general, further education provides an opportunity to earn a living and improve personal success.

Phoenix Contact supports universities with learning systems, provides advice when updating laboratory technology, and offers EduNet seminars at various locations throughout Germany. Furthermore, the learning platform Moodle and collaboration platform PHProject facilitate information exchange and communication with the network.

In 2013, the first EduNet world conference took place in Germany, to improve the networking of universities through personal contacts. 70 universities, with approximately 7000 students, took part in the initiative and are learning about automation technology - since the start of this initiative, around 20,000 students have already taken part.

Nanoline Contest - German-American Automation Contest



The competition is aimed at students who want to put their automation ideas into practice with a modern and easyto-program small-scale controller. Each team receives a Nanoline small-scale controller free of charge to implement their project ideas,

along with extendable Nanoline modules. The teachers in charge are prepared for the use of Nanoline technology with practical

seminars. In 2013, 12 teams took part in the competition, with students aged between 13 and 18 from the region of North Rhine-Westphalia. The project ideas were very diverse and at a very high level. Consequently, making a decision was not easy for the jury. The following projects were given the Inspiring Award: first place went to "Autopilot for wheelchairs", a device which enables route detection for visually impaired wheelchair drivers and thereby supports their independence. The "Smart Fire Station" came in second place - an automated fire station, which can also be used by real fire fighters. In the event of an emergency call at night, the lights, and the raising or lowering of doors, are controlled automatically. Third place was awarded to "Dessertino", an automated waffle-making machine.

The competition also takes place in the USA. The winning teams have the opportunity of presenting their project at the TectoYou booth at the Hannover Messe.

Cooperation with HSG Blomberg-Lippe



The company has entered into a completely different type of cooperation with the German handball league club HSG Blomberg-Lippe – facilitating a connection between sport and industry. In May 2013, HSG Blomberg-Lippe and Phoenix Contact decided upon a year-long collaboration by means of a cooperation agreement. HSG Blomberg-Lippe has been established in the first women's league for years and places strong emphasis on nurturing young talent. The youth teams are set up successfully across Germany and the youth academy has a very good reputation. Across Germany, young female players are scouted and are inspired to play for Blomberg. Phoenix Contact wants to support these young players, who are between high school graduation and German league careers, in making the right career choice. They do so through applicant training sessions, placements, and participation in our summer school.

A particular highlight of this close cooperation was the first Phoenix Contact handball camp, which took place in fall 2013. Young people aged between 14 and 16 years old, from the East Westphalia-Lippe region of Germany, were given the opportunity of taking part in a professional training session and learning about the topic of career guidance with practical examples. The camp was the first innovative step of the cooperation and will be repeated and developed further in the years to come.

Developing cooperation



Cooperation with regional schools is continually developed. In September 2013, the Lage city high school and Phoenix Contact decided to work even more closely together.

The objective of the cooperation is to further develop the provision of services at the school for career guidance by preparing pupils for work and arranging classes.

This takes place via block placements for interested students and additional physics and technology lessons. Employees from Phoenix Contact assist in this process, so that the company gains a deeper insight of the day-to-day educational work through such close cooperation and can then integrate this experience in career training.

Career guidance at the Hannover Messe

The TectoYou stand at the Hannover Messe fully reflects the handball theme. "Score goals with pros" tempted many young people to the stand, to see how they measure up to the players from TBV Lemgos or HSG Blomberg-Lippe. At the same time, the young people could find out about occupational training or admire the winning projects from the Nanoline contests.

Alongside the action at the TectoYou booth, the Phoenix Contact interns looked after around 800 students from various schools in the area, guided them through the fair, and explained exciting innovations.

Phoenix Contact is a founding member of the TectoYou initiative. Since 2007, this special exhibition has been an integral part of the Hannover Messe with the goal of inspiring the young target group with technical topics and careers.