



Inspiring Innovations — Phoenix Contact Gets Close to the U.S. Customer

**Jack Nehlig, President
Phoenix Contact USA**

Executive summary

In Germany, small and medium-sized businesses, known as Mittelstand, form the backbone of a solid economy. Mittelstand companies, often family-owned manufacturing businesses, are sometimes referred to as Germany’s “hidden champions.”

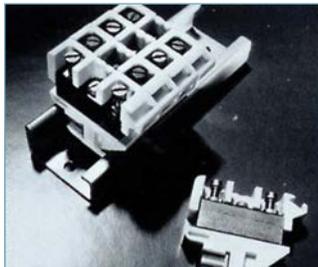
Phoenix Contact GmbH, Blomberg, Germany, is one example of a successful Mittelstand company. Founded more than 90 years ago in Essen, Germany, the company employs more than 14,000 people around the world today. Its 2014 turnover topped €1.77 billion.

The company has always been known for its innovative products, but in 2005, Phoenix Contact’s executive board decided they needed an innovative business structure to compete in a global economy. With more than two-thirds of its business now coming from sales outside of Germany, Phoenix Contact reorganized into a transnational company (TNC), setting up three regional centers of competence. The first, of course, was the headquarters in Germany, and the other two were in the U.S. and China. This new approach recognized the regional nature of the manufacturing industry and put development and manufacturing closer to the customer. This enabled a future for which the company’s portfolio could truly become global.

INSIDE:

- Executive summary..... 1
- History: times may change, but inspiration is timeless 2
- Think globally, act locally 2
- Quality shapes the future..... 3
- Investing in innovations drives success.... 4
- Conclusion 5

History: times may change, but inspiration is timeless



Phoenix Contact invented the first modular terminal block in 1928.

In 1923, Hugo Knümann founded Phönix Elektrizitätsgesellschaft (Phoenix Electricity Company) in Essen, Germany, specializing in contact wire terminals for electric trams. The first major milestone for Phoenix Contact came in

1928, when Knümann invented the modular terminal block, revolutionizing electrical connection technology.

Through most of the 20th century, Phoenix Contact maintained steady growth, but primarily conducted business in and around Germany. During the 1980s, Gerd Eisert, one of the company's managing partners, realized the importance of a worldwide presence. He worked tirelessly to establish subsidiaries in major foreign markets. One of the first three of these subsidiaries was Phoenix Contact USA, established near Harrisburg, Pa., in the early 1980s.

As this international expansion was occurring, Phoenix Contact's product range was also growing, both in the number of products offered and in technological advancement. The company diversified beyond the modular terminal block and began integrating more electronic



Gerd Eisert (seen here on the right at the grand opening of Phoenix Contact USA's Lower Swatara facility in 1985) led Phoenix Contact's expansion into international markets beyond Germany.

functions into its wide range of products. The expanded product range now included a wide range of modern industrial technologies including:

- Terminal blocks
- Device connectors
- Surge protection modules
- Interface components
- Network technology and control systems
- Wireless, safety and security solutions
- Control cabinet

During the next few decades, Phoenix Contact USA operated primarily as a sales subsidiary, growing to \$100 million in U.S. sales by 2005. A small amount of manufacturing took place in the U.S. at that point, but it was primarily value-added assembly, totaling about \$30 million in annual sales.



Over the past several decades, Phoenix Contact's product family has grown to include nearly every component found in an industrial control cabinet.

Think globally, act locally

In 2005, the Executive Board announced a new corporate strategy. To position the company for faster growth, Phoenix Contact changed its structure to a transnational corporation (TNC) with three regional centers of competence: Germany, the U.S. and China.

At Phoenix Contact, there is a strong belief that a high level of process know-how (vertical integration) is important to ensure the highest quality of its products. For example, Phoenix Contact even manufactures its own screws, which are a key component in many of its terminal blocks.

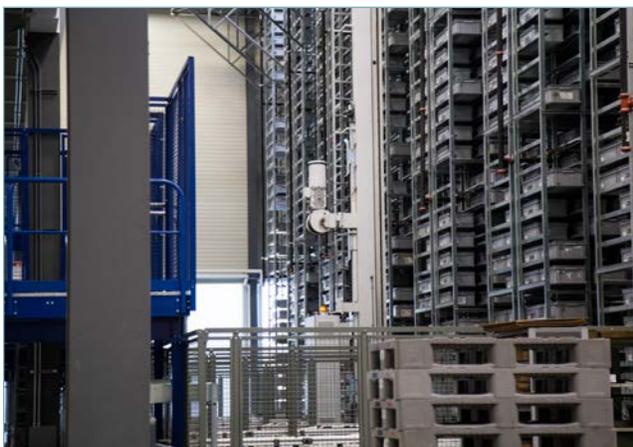
At the same time, Phoenix Contact wanted to operate as a local company throughout the world. Each region has unique needs, and local companies are better suited to find the solutions that address their specific markets.

While many American companies were sending their manufacturing operations offshore, Phoenix Contact chose to increase its investment in the U.S. based on its TNC strategy and established a U.S.-based design and manufacturing center. This strategy was focused on designing new products based on American standards and customer needs and NOT simply transferring manufacturing from Germany to the U.S.

To accomplish this, Phoenix Contact established a separate Development & Manufacturing Company, housing Regional Business Units (RBUs) in the U.S., responsible for product management, development and manufacturing. As a result of the RBUs, Phoenix Contact can provide better products, improved response times and more personalized service to customers in North and South America.

The RBU's product development strategy is to design products based on technology of American origin and unique competence, as well as for key American industries. Phoenix Contact's engineers specialize in technologies based on the needs of the North American market. Additionally, because the automotive and oil-and-gas industries are so important to the American economy, global industry managers supporting those industries are also based in the U.S.

Another step in getting closer to the customer was the opening of the Logistics Center for the Americas (LCA) in 2008. Since then, Phoenix Contact's U.S. headquarters ships products directly to subsidiaries in North and South America.



The automated logistics system ensures fast delivery to American customers.

To provide more personalized service in key industries, Phoenix Contact has also established several Customer Technology Centers (CTCs) across the U.S. These locations include:



The CTCs make it easy for Phoenix Contact to serve customers in key markets, including (clockwise from top) Texas, Michigan and California.

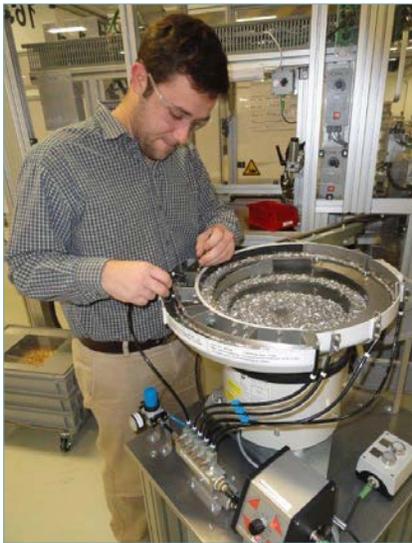
- Houston, Texas — opened in 2007; home to Phoenix Contact's global oil and gas management team
- Ann Arbor, Michigan — opened in 2012; home to Phoenix Contact's global automotive team; also serves as the software development center for the U.S. market
- San Jose, California — opened in 2014; serves the high-tech Silicon Valley market

Quality shapes the future

Phoenix Contact expects the highest quality down to the smallest detail, no matter where it produces a product. As part of this TNC strategy, Phoenix Contact decided that the U.S. headquarters would follow the same processes and standards as its German operations do. In fact, the U.S. and German production facilities even share their DQS Certificate for Quality, Environmental and Occupational Health and Safety Management (ISO 9001:2008; ISO 14001:2004; OHSAS 18001:2007).

This means that if one location does not meet the standards, all of the locations will lose their registration. Similarly, the LCA uses the same automated system as the logistics center in Germany.

Phoenix Contact invests significant time and money to ensure high-quality training for all employees. In August 2011, the U.S. began a Mechatronics Apprenticeship program to address the needs of its increasingly complex production environments. The program was modeled off of the training programs in Germany. For the inaugural class, Phoenix



Kurt Bruehl, manufacturing engineer, inspects a feeder bowl to make sure the contacts are running properly and that the track is properly aligned. Kurt is a graduate of the Mechatronics Apprenticeship program.

In May 2013, the program became the first state-approved program of its kind, recognized by the Commonwealth of Pennsylvania's Apprenticeship and Training Council and the U.S. Department of Labor Office of Apprenticeship.

Contact selected a group of current manufacturing employees. Over a four-year period, the apprentices received 8,000 hours of on-the-job and classroom training to support the technology within the manufacturing environment. Part of the curriculum included a trip to Germany to learn directly from their German counterparts.

Investing in innovations drives success

Phoenix Contact has never wavered in its commitment to local development and manufacturing. Even during the economic crisis of 2008–2009, Phoenix Contact did not lay off any employees and continued to develop new products. As the economy recovered and business picked up again, Phoenix Contact was fully staffed to meet customer needs. The result was a much quicker recovery than many other companies experienced. In 2010, global sales were 42 percent higher than 2009 and were 12 percent higher than 2008 figures.

The goal of the RBU was to develop products to meet the specific needs of the North American market. This has resulted in innovations such as:

- The easiest and most reliable industrial wireless products on the market
- A range of advanced Ethernet switches
- Award-winning Valueline and Designline industrial PCs
- Custom cables and cordsets, shipped within five days or less
- Surge protection devices (SPDs) to protect advanced electronics in telecommunications and modern railroad equipment
- Varioface Professional (VIP) line of system cabling
- Foundation Fieldbus process infrastructure systems
- Overmolded cables and cordsets for North American customers

Phoenix Contact engineers also created custom designs for leading companies such as Ford, Enphase and Alcatel-Lucent, resulting in significant business. Some American-designed products (such as Valueline and VIP) have also shown global appeal. The D&M Company received more than 50 patents since its inception.

Phoenix Contact's D&M business now does nearly \$100 million in sales annually, including \$30 million in export business. The number of D&M employees has grown from less than 100 in 2005 to more than 250 today — more than a third of the company's 675 employees in the U.S. That includes 210 in Pennsylvania, 35 in Michigan and five in Houston.

As a result of this success, Phoenix Contact has invested even more in U.S. development and manufacturing. In the spring of 2014, Phoenix Contact completed a major expansion to its U.S. headquarters to accommodate the growing RBU. The new facility doubled the manufacturing footprint in the U.S. to 90,000 square feet. It also added 50,000 square feet of space for engineering offices and labs.



With the new D&M building, Phoenix Contact has expanded its high-tech manufacturing capabilities. The facility is also designed to improve collaboration among the engineering and manufacturing teams.

Conclusion

Since Phoenix Contact has decentralized and become a TNC, American customers have enjoyed a wider product range, faster turnaround times, increased flexibility and more personalized service. Phoenix Contact's sales in the U.S. have nearly tripled, from just over \$100 million to \$300 million today. "Getting closer to the customer" is not just a catchphrase at Phoenix Contact — it is a business approach that has proven successful for Phoenix Contact and its customers.

Many companies find it hard to maintain a company culture while expanding from an international player to becoming a global leader. However, Phoenix Contact's core values — independence, innovation, creativity and trusting partnerships — continue to be central to its success, as both a Mittelstand and now as a successful transnational company.