

partnership

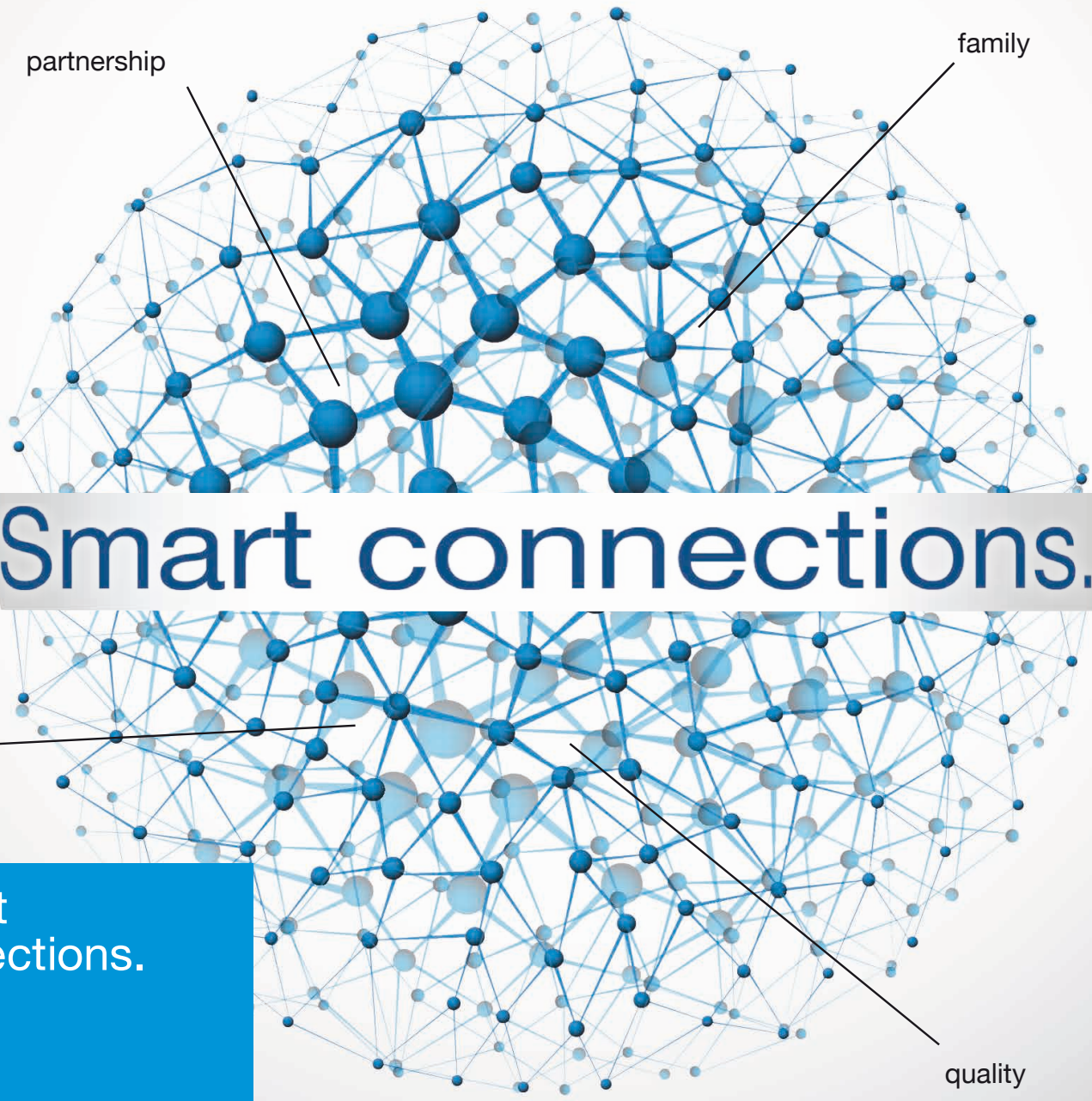
family

Smart connections.

future

Smart connections.

quality



Our philosophy: "Smart connections."

Through our internal and external networks, we lay the foundations for opening up new paths. Paths that we pursue together with our partners and customers. Through fair cooperation between every member of the team, we never lose sight of our goal.



Smart
connections.

Create connections, exploit advantages

Our philosophy of "Smart connections." is based on the extensive experience of the KOSTAL Group, combined with our competitive advantages, which guide our actions. In the harmonic interplay of these advantages and factors, we create smart connections between ourselves and our customers, as well as between product and application solutions and their users. Connections that are well thought-out and oriented to long-term success.

The KOSTAL family

Not only within our company group, but also in our relationship with all partners, we see ourselves as a KOSTAL family, in which each member can rely on the others. This understanding and long-standing relations with our customers guarantee a code of conduct built on human values and tradition.



INVEOR drive controller platform



SAMKO solar module junction boxes

Partnership based on symbiosis

Our partnership concept is based on the simple yet brilliant idea of symbiosis. We have transferred this idea to the relationship between our partners and ourselves. By staying in continual direct contact with our clients, we can react quickly and provide customized solutions.

Quality-offensive thinking

The high quality standards demonstrated at KOSTAL include pronounced quality-driven thinking, stringent error management, guarantees and open communication. These attributes enable us to work with an emphasis on quality in the interests of our customers.

Shaping the future

We are already thinking about tomorrow today, and offer active knowledge transfer as a special added value. We promote thinking together in intensive dialogue, and in this way shape the future together with our partners.

Our products – always a smart connection

With the INVEOR line of drive controllers and the SAMKO solar module junction box, KOSTAL Industrial Electronics fulfils both the requirements of the market and the claims of the "Smart connections." philosophy.

The innovative INVEOR drive controller has been designed in such a way that although it can be universally used in the basic variant, customer-specific applications can also easily be implemented. We have thus created an intelligent solution that contributes to increased efficiency in connection with all common motor types.

Our PV junction boxes of the SAMKO brand are the smart connection between the PV modules and the PV inverter. After all, the generated power can only be used when the junction box works reliably. Our versatility in this product range extends from standard solutions to automatable variants.

Strength through experience: the KOSTAL family

Planted on solid ground, the KOSTAL family has developed and branched out continuously. And because our roots are the same, we support one another and share the energy together that is found in each individual branch of us. This makes us a strong community, in which each member can rely on the others.



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A company with tradition

The founder of our company was Leopold Kostal, who began with the production of installation material for industrial and private use in Lüdenscheid, Germany in 1912. Over the years, both his son Kurt and his grandson Helmut Kostal contributed their entrepreneurial spirit to the family-owned business. Today we look back at decades of experience which was passed down through the generations. Since January 2011 the company has been in the hands of the fourth generation under the leadership of Andreas Kostal.

Step by step to the KOSTAL Group

In 1927 the company ventured into the sector of Automotive Electrical Systems with a self-developed turn indicator for automobiles. A few years later, in 1935, Kurt Kostal took over the company in the second generation. Under the management of these two generations, Leopold KOSTAL KG began to clearly focus on the development and production of services for the automotive industry.

A strong community

In 1995, Helmut Kostal divided the company into four independent business divisions: Automotive Electrical Systems, Industrial Electronics, Connectors and SOMA (Test Technology). These areas are equipped with their own resources and capital in order to ensure the independence of the divisions from one another. These efforts at diversification are the central component of

KOSTAL's long-term strategy.

In 2004, **KOSTAL Industrial Electronics** was transformed into an independent private limited company (GmbH), which moved to the Hagen location in 2005.

For the international sale of our PIKO inverters, KOSTAL Solar Electric GmbH was founded in December 2006 as a subsidiary of the KOSTAL Industrial Electronics GmbH in Freiburg. It is represented with its own branch offices in various countries.

Following a reorganisation in 2008, the KOSTAL Group now consists of the three business divisions of Holding, Automotive Electrical Systems and Industry. The industry business division thereby comprises the companies Industrial Electronics, Connectors and SOMA (Test Technology).

Family as the connecting element

In our dealings with our internal and external partners, we see ourselves as a KOSTAL family, in which every member can rely on the others. That is why the close, trusting partnership we have with our customers is especially important to us. We attach special importance to close and trusting collaboration with our customers in a spirit of partnership. In this way we intelligently connect our extensive expertise and our technical capabilities with customer proximity. In the process, we rely on confidence-based cooperation that builds on the long-term nature of all our business efforts.



Four generations of the Kostal family

Utilising symbioses for stronger partnerships

We define symbiosis (from Ancient Greek *sýn/sym*, 'together' and *bíos*, living) as the association of different types of creatures to the advantage of both partners. This is why we like to use this metaphor to emphasise our philosophy of smart connections between us and our customers. Here, too, both parties benefit from one another and thus become more competitive.



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Inspired by nature – the KOSTAL partnership concept

In nature, symbiosis has many advantages. Take the clownfish, for example, which has a mutually beneficial relationship with the sea anemone. Taking our inspiration from nature, we strive to create a similarly close partnership with our numerous customers. Our absolute reliability is the base for a mutually beneficial exchange of thoughts and ideas leading to new developments.



Recognising and fulfilling market needs

We have developed and manufactured a wide range of specific solutions in response to the needs of our customers, particularly in photovoltaics (SAMKO solar module junction boxes) and drive technology (INVEOR line of drive controllers). The extensive knowledge gained during these development processes enables us to anticipate future market requirements and offer the solutions the market needs.

Global expertise in mechatronics

We have an international development and production network at our disposal within the KOSTAL Group. We can access this expertise and these technologies at all times. This is because all divisions within the KOSTAL Group can rely on one another, allowing us to also react quickly to changing requirements.

Knowledge transfer through partnerships

In addition to partnerships with our customers, we also place great importance on maintaining an exchange of knowledge with other organisations and institutions. We thus work together with research facilities and participate in interest groups in order to exchange knowledge from the industry and realise joint projects.

Partnership creates connections

What is especially important to us in all our partnerships is that an exchange take place not only on a purely technical, but also on an emotional level. This is why we are continually developing various initiatives in order to bring the philosophy of "Smart connections." to life together with our partners. One of our creations in this context was the "Smart connections." song, created together with various partners, with a view to connecting people through music. However, even young children can already experience our philosophy as part of a painting competition.

Quality-offensive thinking at all levels

At our modern headquarters in Hagen, we develop new solutions for the energy of the future and for the sustained satisfaction of our customers. In doing so, we can always rely on the support of the KOSTAL Group, which stands behind us with its competence and its decades of experience.



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Mistakes are there to be eliminated

We all know that errors are often not immediately obvious until we take a closer look. That's why we do everything we can to avoid them right from the start. We use the zero-error approach, which is applied throughout the company and places the focus on the quality of our work, our products and our services.

Striving for quality

Potential sources of error are already analysed and intercepted in the context of product development. This takes place using preventive quality tools, which we have developed ourselves for this purpose. However, we also always keep a close eye on our products even after series production and permanently work on possible improvements. In doing so, we are happy to accept the suggestions of our customers and to learn from the experience of others.

Quality products

KOSTAL uses only components from suppliers certified according to our high quality standards.

Quality through ideas and action

In order to achieve our quality goals, the capabilities of all employees with respect to ideas and action with a focus on customers and quality are constantly further developed and refined.

Quality through leadership

Our managers are role models for their employees. They must formulate clear, obtainable goals and assist their employees in realising these goals. They are responsible for the achievement of these goals.

Quality in international competition

Obtaining international quality certificates and quality awards is the declared goal of the company in the effort to prove the international competitiveness of KOSTAL.

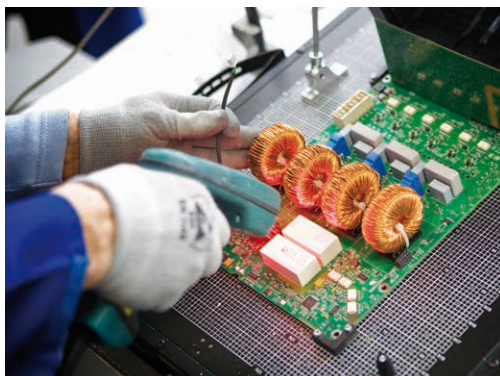
Quality in communication

We formulate customised solutions in individual dialogue with our customers. In the process, the quality of the communication with our customers is of particular importance. That means that we only present our customized proposals after detailed analysis and project related discussions with our clients. We also ensure that each customer has a contact who can answer their questions clearly and competently.

The selected photos shown here provide a few impressions of our production and quality assurance.



Highly automated production line for PV module junction boxes



In-circuit testing



SMD production line

Shaping the future with more knowledge

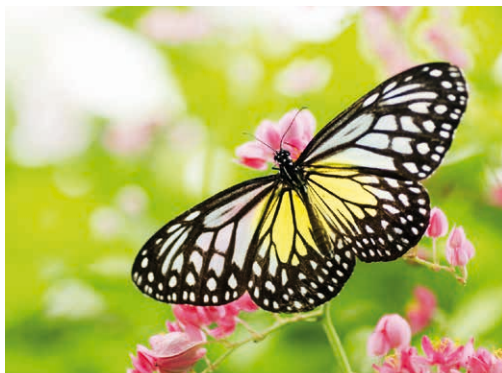
Our goal for the future is to advance developments together with our partners through the smart connection of new technologies and extensive knowledge. In the process we accept responsibility for ensuring that we too make a valuable contribution to designing the future with the technology of today.



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Passing on knowledge and learning from others

Economic progress with responsible dealings with nature and natural resources will be one of the most important tasks to be mastered in future. Extensive knowledge is required to connect both areas to one another intelligently. To us, the idea that one never stops learning rings especially true. This is why the transfer of knowledge and the dialogue with various partners is a matter of great importance to us. They allow both parties to gather new knowledge, which flows into the development of the partnership, but also into products and services.



PV system at our Hagen headquarters

Assume responsibility with knowledge

To achieve long-term market success it is essential to take account of environmental and social issues. Through its core product fields, KOSTAL creates smart connections between economic, ecological and social considerations. Photovoltaic technology is used to generate renewable energy, making a significant contribution to a clean environment. In drive technology, energy efficiency plays a decisive role. We develop products that convince not only with high quality and best performance, but which are also economical to use.

Fresh ideas for sustained growth

With a constant exchange of knowledge, we have the opportunity to develop ourselves further and to promote progress, from which all parties profit equally. Only when new, fresh ideas are added to the mix continually can something new arise and the previously achieved high quality be improved even further in future.

Using knowledge offensively

KOSTAL goes on the offensive when it comes to knowledge and offers customers and business partners the opportunity to exchange information in a knowledge network.

Bringing knowledge to the region

KOSTAL Industrial Electronics is committed to the local community in the region of South Westphalia, and is engaged in various projects. In the process, we maintain partnerships with schools, universities and sports clubs, but also support renewable energy expert groups. We are also involved in municipal committees in the city of Hagen, thus helping to promote constructive dialogue between business and local government.

A sense of responsibility for the environment

The business management of the KOSTAL Group is aware that all activities relating to the development, manufacture and sale of our products have a direct or indirect influence on the environment. This is why environmental protection is an important task of the company, the significance of which is also reflected in the corporate principles on environmental policy.

KOSTAL

KOSTAL Industrie Elektrik GmbH
(KOSTAL Industrial Electronics)
Lange Eck 11
58099 Hagen
Germany
Telephone: +49 2331 8040-800
Fax: +49 2331 8040-602

www.kostal.com/industrie