

“Staying flexible and open to new technologies“

In its 112-year history, Hamburg-based Kroenert Group has developed into one of the leading manufacturers of special-purpose machines for coating technologies. Managing Director Dr. Tarik Vardag aligns the group systematically to markets of the future. In an interview, he explains how he steers the company based on the existing know-how towards new markets like lightweight construction, lithium ion storage units, organic photovoltaics technology or printed electronics without neglecting the traditional applications. Operating profits are invested in research and development or allocated to charitable foundations.

Dr. Vardag, your predecessors at Kroenert coped with many a difficult situation during the last 112 years.

Tarik Vardag: World wars, economic crises and crises in industrial sectors often forced them to take another path and make new arrangements. However, we have been firmly rooted in Hamburg since 1903. One of these crises resulted in the Technology Center co-financed by the members of staff where we now develop and test new techniques in cooperation with our customers. For us as a manufacturer of special-purpose machines of which every machine is different from the other ones, this is a crucial prerequisite.

How do the four companies of the Kroenert Group cooperate?

Vardag: Besides Kroenert as a specialist for the laminating and coating of paper, cardboard, plastic materials and metal films or textiles, Bachofen + Meier AG as well as DRYTEC GmbH & Co. KG with drying, humidification and UV curing technology are part of our group. Usually, DRYTEC dryers are integrated in the Kroenert systems. Where appropriate, we also use drive solutions of our sister company ZAE Antriebssysteme. All four companies with their approximately 400 members of staff are combined under the corporate umbrella of ATH Altonaer-Technologie Holding. It reinvests the operating profits in innovations and supports scientific training and other social causes via charitable foundations.

What is striking with Kroenert is the strong technological diversification. What are your most important markets?

Vardag: We are active in many niche markets. The big brace that holds everything together is the finishing of materials in web-to-web processes where we are a player in the high-end segment. The more specific the requirements, the better we are able to bring out our strengths. The first of our three core segments is the packaging market where we enhance all kinds of films and foils you can think of. Take, for example, crisp bags, yoghurt lids, coffee capsules or the wide range of functional foils used in medicine. Secondly, our machines are used to manufacture technical products like adhesive tapes and self-adhesive labels, graphic films and foils as well as protective and reflection foils for license plates and traffic signs. The product may be simple as long as the manufacturing process is complex. The same applies to our third segment, i.e. Clean Technologies. Inter alia, we supply systems that embed fabrics and scrims made of carbon fibre into epoxy resin with utmost precision to the majority of component suppliers of the passenger aircraft manufacturing industry. Furthermore, we are active in the coating of anodes and cathodes of lithium-ion batteries and membranes for fuel cells as well as flexible organic photovoltaic cells. In the nanotechnology segment, we coat with coating thickness of less than 100 nanometre, which is, inter alia, required in printed electronics applications. As a rule, we cover part of a larger process chain and, therefore, must cooperate with our customers, development partners and material suppliers very closely.

You have many irons in the fire. Where do you generate big sales at present?

Vardag: While the Clean Technologies segment is rather future-oriented, it already makes considerable contributions to our sales volume. However, we still generate the largest portion of the sales volume in the technical products segments, i.e., the labels and graphic films as well as in the packaging segments.

Do you expect growth with regard to printing and coating technologies or is this rather a consolidated segment of yours?

Vardag: In a way, you could speak of consolidation. However, there are still new applications that trigger fresh growth impulses. As, for instance, the coffee capsules which showed enormous growth during recent years. For us, the packaging market is of great importance. And with printed electronics, we get ready for innovations in this market as well. Just think of printed RFID labels for high-quality products.

You claim technological leadership in all segments. How do you proceed in order to achieve this aim?

Vardag: Of crucial importance are our competences, our creative members of staff and our Technology Center. There, we continuously improve the components of our systems, test new techniques, as, for instance, the simultaneous double-sided coating of films/foils. In such projects, we cooperate closely with the developing engineers of our customers, with chemical suppliers as well as universities and research institutions.

To which extent can you build special-purpose machines on a modular basis?

Vardag: We are well on the way to achieving more modularity. For customers in emerging countries and developing countries, we have developed a model series which is strongly standardised and modularised. In addition, we can apply dozens of different coating techniques by replacing the coating heads in our other model series and above all in the system used in our Technology Center. The requirements in high-end applications, however, are mostly too specific to allow the technology to be simply transferred.

Can you actually use the paper and cardboard coating know-how for your future technologies?

Vardag: To my view, our know-how lies in our ability to modify our systems for the specific needs of the customers. We do that with our own staff, so that, in this respect, we have not really taken additional know-how into our company from outside – instead, we develop it on our own. I expect from our engineers working in process technology, mechanical and electrical engineering that they embark on new subjects and acquire knowledge in other areas as well. That's necessary in order to transfer technology of our big production systems to smaller laboratory systems in the new technological fields. We deliberately go from the factory scale to the laboratory scale in order to be able to accompany our customers in future markets right from the beginning. With increasing growth, our know-how enables us to scale the system up to the factory level again quickly.

In printing and paper technology, new entrepreneurial ideas and courage for changes are needed. How can companies get their members of staff on board?

Vardag: We ourselves have to be flexible and open to new technologies. For that, we need a general direction that gives our members of staff room for creativity. Statistical target agreements must not become a corset that restricts flexibility. However, it's also important that the staff members use this freedom to embark on new subjects and to remain open for an interdisciplinary exchange.

Where then do you see your future growth markets?

Vardag: Wherever areas of enhanced material are needed. Be that flexible photovoltaics for facades, windows or large tents, be that organic light emitting diodes which enable to create completely new area lighting or the battery market. In all these markets, there are still technological issues that need to be solved before the ball can be set rolling. However, the potential is definitely there.

Do you also have an eye on international growth?

Vardag: Not in the sense that we establish production sites abroad. Our approach is different. We join international networks, look for exchanges with research institutions and development partners from innovative industries. We wish to continue the successful model of a high level of networking in Germany and Europe on an international scale.

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