

Köppern has been an internationally successful owner-managed group of companies for 125 years and has been one of the hidden champions of German mechanical and plant engineering for decades. The company develops, manufactures and sells technologically advanced plants and heavy machinery for industrial processes in the fertilizer, cement, minerals and metalworking industries. From Köppern's headquarters in the southeastern Ruhr area, the company serves customers all over the world. High technical competence, reliability and a strong customer focus have made the company successful.

In Saxony, Freiberg is home to Köppern Aufbereitungstechnik GmbH & Co. KG (KAT), and is the headquarters of the sales department for comminution applications in the cement, mining and mineral industries. The company is located in the immediate vicinity of the Technical University Bergakademie Freiberg and has been operating the technical center at the Institute for Processing Machines, the most important test facility of the KÖPPER Group, in close cooperation with the Bergakademie since 2003.



From left to right:  
Prof. Holger Lieberwirth, Christopher Schäfer, Managing Director of Köppern Group,  
Rector Prof. Klaus-Dieter Barbknecht, Prof. Georg Unland.

Since the foundation of KAT in 1992, Köppern has had a close relationship with the TU Bergakademie Freiberg (TUBAF) in the field of research and development, which has been intensified over the years. The symbiosis of KAT's practical approach and scientific support from TUBAF is the cornerstone of the successful work at the technical center and makes this location particularly attractive. The two partners will work even more closely together in the future to research the processing and recycling of raw materials, assisting in the transition to cleaner energy. One joint research project revolves around the development of briquettes made from iron ore, which can be processed into green steel in hydrogen-powered furnaces in the future.

"In a current research project together with the TU Bergakademie Freiberg, we are investigating the use of AI-supported processes for the further development of potash processing plants for the production of fertilizers for agriculture in order to secure the food supply for a growing world population," says Artur Hubert, Managing Director of Köppern Aufbereitungstechnik GmbH & Co. KG. "Together with industrial partners as well as on a semi-industrial scale, we are developing processes and machines with the TU Bergakademie to make the processing of primary and secondary raw materials even better, more effective, more energy-efficient and more sustainable."

Christopher Schäfer, Managing Director of the Köppern Group:

"Processes and machines, starting with the crushing of the ore and the "refinement" of the iron ore concentrate to produce suitable pellets for the direct reduction process, through to the hot briquetting of the sponge iron produced, can be further developed together with the TU Bergakademie and even mapped out on a semi-industrial scale. State-of-the-art test facilities are available for this purpose at the Institute for Processing Machines and Recycling Systems Technology."

"Together with other research institutions and researching companies, our scientists work on innovations and bring technologies into application. The cooperation with the eleven affiliated institutes is particularly close," explains Rector Prof. Klaus-Dieter Barbknecht.

"Technical universities, and especially TU Bergakademie Freiberg, have a special responsibility when it comes to technical and technological upheavals. Scientific findings must be put into practice as quickly as possible to ensure the competitiveness of German industry. This can be achieved through joint research projects with companies, spin-offs or staff exchanges. All this strengthens the attractiveness of Freiberg as a location," says Prof. Georg Unland.

Köppern would like to thank all those involved for the very successful cooperation that has already existed for more than 30 years. We are delighted that this has now been intensified, culminating in the appointment of KAT as an AN-Institute\* and confirming the attractiveness of Freiberg as a location for students and industry.

\* AN-Institutes are independent research institutions that cooperate with TU Bergakademie Freiberg on a long-term basis and complement the university's teaching and research programs. Recognition as an affiliated institute is granted in accordance with the Saxon Higher Education Act (§ 102).