

Specialist Press Release

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Rediscovering carbon: Bauer Resources participates in Carbo-FORCE

Schrobenhausen, Germany – Carbon is one of the most important building blocks of life. It serves as the basis of all natural materials and forms numerous bonds. When forests die, for example, CO₂ enters the atmosphere and is bound by plants or rivers somewhere else. As a result, carbon is simply everywhere. And there's now more of it in the air than the natural cycle is able to neutralize. Carbo-FORCE GmbH has a strategy to counteract this: This startup from the northern German town of Preetz has developed groundbreaking plant for the carbonization of biomass. On January 1, 2023, BAUER Resources GmbH acquired 50% of the company's shares.

But how does this innovative plant work? The technology is based on the traditional principle of carbonization. This is none other than pyrolysis, in which the biomass, from (scrap) wood and horse manure all the way to fermentation residues or sewage sludge, is heated to very high temperatures in the absence of oxygen. As a result, a large share of the carbon is bound and not entirely emitted into the atmosphere as it would be with incineration. The end product is biochar, which has a variety of possible uses: in agriculture for soil improvement, in livestock farming as feed charcoal, as an insulating material or as activated carbon filter. "Depending on the initial material, 1 t of biochar can bind more than 3 t of CO₂," explains Kai Alberding, Managing Director and founder of Carbo-FORCE GmbH. In this way, the equipment actively produces carbon credits as well as exhaust heat. Hardly any energy is required during operation, just at the start of the combustion process. "Far more energy is generated than consumed – the plant is almost self-sufficient," summarizes Kai Alberding. Due to their modular design in the form of containers, these durable plant can be individually adapted and positioned in a decentralized manner.

"For a long time now, Bauer Resources has stood for simple technologies combined with decentralized solutions. This is why the groundbreaking carbonization plants from Carbo-FORCE are an ideal addition to our portfolio," underscores Dr. Roman Breuer, Managing Director of BAUER Resources GmbH, and adds: "At the same time, we are reinforcing the expansion of our energy division with this step." For Carbo-FORCE, the collaboration offers considerable added value in other respects: "In Bauer Resources we have found a long-term partner who provides us with the necessary production capacity and a suitable sales network," says Kai Alberding. The equipment will be constructed by a subsidiary of Bauer Resources, SCHACHTBAU NORDHAUSEN GmbH, a specialist in plant engineering with more than 30 years of experience in the field.

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As a result, both companies will benefit from the future collaboration as they join forces to address important topics: the reduction of CO₂ emissions and the generation of sustainable energy. To benefit the environment, and to combat climate change.

Photos: 2023-01_BAUER Resources_Carbo-FORCE...



(1) BAUER Resources GmbH has acquired a 50% share in Carbo-FORCE GmbH. In the picture: Tobias Bangerter, Managing Director of BAUER Resources GmbH, Kai Alberding, Managing Director of Carbo-FORCE GmbH and Dr. Roman Breuer, Chairman of BAUER Resources GmbH (from left to right). © BAUER Group



(2) Carbo-FORCE develops groundbreaking plants for the carbonization of biomass. © Carbo-FORCE





(3) The usable input materials range from (scrap) wood and horse manure all the way to fermentation residues or sewage sludge. © Carbo-FORCE

About BAUER Resources Group

The regionally organized BAUER Resources GmbH is aligned to projects around the world with its subsidiaries in Germany, Africa, the Middle East and South America and has extensive expertise in the areas of drilling services and water wells, environmental services, constructed wetlands, mining and rehabilitation. With more than 30 years of experience, BAUER Resources GmbH's Bauer Umwelt business division is one of the leading specialists in site remediation, soil remediation and waste disposal, both in the domestic market and internationally. As an expert in pollution reduction, Bauer Umwelt offers a diverse range of services for all environmental issues. Other companies of the BAUER Resources Group are the GERMAN WATER and ENERGY GROUP (GWE) – manufacturers of pioneering products and developers of integrated applications for well-drilling and geothermal – as well as SPESA Spezialbau und Sanierung GmbH. More at bre.bauer.de

About Bauer

The BAUER Group is a leading provider of services, equipment and products dealing with ground and groundwater. The Group can rely on a worldwide network on all continents. The Group's operations are divided into three forward-looking segments with high synergy potential: Construction, Equipment and Resources. Bauer profits enormously from the collaboration of its three business segments, enabling the Group to position itself as an innovative, highly specialized provider of products and services for demanding projects in specialist foundation engineering and related markets. Bauer therefore offers suitable solutions to the world's greatest challenges, such as urbanization, the growing infrastructure needs, the environment, as well as water. The BAUER Group was founded in 1790 and is based in Schrobenhausen, Bavaria. In 2021, it employed about 12,000 people and achieved total Group revenues of EUR 1.5 billion worldwide. BAUER Aktiengesellschaft is listed in the Prime Standard of the German Stock Exchange. More information can be found at www.bauer.de. Follow us on Facebook, LinkedIn and YouTube!