

Pioneering Renewable Carbon Based Technology

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Avantium is a pioneering company in developing technologies for renewable chemistry. We only use renewable carbon as feedstock for our processes. In this presentation we want to highlight some of our most advanced technologies.

Carbon from biomass, as opposed to fossil carbon, is already highly functionalized. Sugars, for example, are perfect to make building blocks for polyesters. Polyesters are generally composed of a dicarboxylic acid and a diol. The YXY technology of Avantium converts sugars into furan dicarboxylic acid (FDCA). The RAY technology of Avantium converts sugar into the diol monoethylene glycol (MEG). With FDCA and MEG we make the bio-based polyester PEF. This has superior properties compared to PET. Both technologies are at pilot scale, and the first commercial plant to make FDCA will be operational in 2023. We will give you the latest insights in this exciting technology development and upscaling trajectory.

The ultimate carbon source is CO₂. Imagine a world in which excess CO₂ is no longer harmful to our future, but a useful feedstock for high value chemicals and commodity products. The VOLTA technology is the electrochemistry platform of Avantium. We develop CO₂ utilization solutions. In this presentation, we will show you how we plan to bring CO₂ utilization solutions to large scale. First, this needs collaboration: no one has the expertise to do this alone. Second, this requires a stepwise approach: we cannot target bulk markets from day one.

We believe in a fossil free world – let's go!