

## Avantium awarded €1.5 million EU grant to demonstrate the electrochemical conversion of CO<sub>2</sub> into sustainable plastic materials

**AMSTERDAM, 25 May 2023, 17:45 hrs CEST – Avantium N.V., a leading technology provider in renewable chemistry, announces that it has been awarded a €1.5 million grant by the EU Horizon Europe programme for its participation in the research and development programme HICCUPS<sup>1</sup>. This programme aims to demonstrate the utilisation of CO<sub>2</sub> as a feedstock for the production of polyesters. The €1.5 million grant will be paid out in tranches to Avantium over a period of four years, starting in September 2023.**

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Avantium is a frontrunner in developing and commercialising innovative technologies for the production of materials based on sustainable carbon feedstocks, i.e. carbon from biomass or carbon from the air (CO<sub>2</sub>). One of Avantium's innovative technology platforms, called Volta Technology, uses electrochemistry to convert CO<sub>2</sub> into high-value chemical building blocks and polyesters.

Under the HICCUPS programme, Avantium will convert CO<sub>2</sub> from biogas produced at wastewater treatment plants into the sustainable plastic material PLGA (polylactic-co-glycolic acid). PLGA with 80% glycolic acid or more has an excellent barrier against oxygen and moisture and good mechanical properties. It is furthermore recyclable and both home compostable and marine degradable. PLGA can be used, for example, as coating material and in moulded plastic materials. This makes PLGA an excellent alternative for fossil-based polyethylene.

The HICCUPS programme, which has received a €5 million EU Horizon Europe grant in total, will demonstrate the full value chain from biogenic CO<sub>2</sub> to polyester end-use and is expected to be executed over four years. Avantium will lead the HICCUPS consortium consisting of Avantium and 11 other industry and academic organisations: Funditec (Spain), University of Amsterdam (Netherlands), INRAE (France), ACCIONA (Spain), Nova Institut (Germany), VTT (Finland), University of Ferrara (Italy), Tecnopackaging (Spain), Aqualung (Norway), SINTEF (Norway) and Walki (Finland).

Annelie Jongerius, Technology Manager at Avantium and scientific coordinator of HICCUPS: "Avantium is proud to lead the development of CO<sub>2</sub>-based polyesters and we look forward to working with like-minded organisations on Carbon Capture and Utilisation (CCU) under the HICCUPS programme. This award of the prestigious European Horizon grant reflects our expertise in the conversion of CO<sub>2</sub> into high-value polyesters using electrochemistry and our ability to develop innovative new materials."

*This project has received funding from the Circular Bio-based Europe Joint Undertaking under the European Union's Horizon Europe funding programme under grant agreement No 101112455.*

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### About Avantium

Avantium is a leading technology development company and a frontrunner in renewable chemistry. Avantium develops novel technologies based on renewable carbon sources as an alternative to fossil-based chemicals and plastics. The company currently has three technologies at pilot and demonstration phase. The most advanced technology is the YXY<sup>®</sup> plant-to-plastics-technology that

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<sup>1</sup> HICCUPS stands for Highly-Innovative technology demonstration for bio-based CO<sub>2</sub> Capture and Utilization for production of bulk Plastic applications

catalytically converts plant-based sugars into FDCA (furanicarboxylic acid), the key building block for the sustainable plastic PEF (polyethylene furanoate). Avantium has successfully demonstrated the YXY<sup>®</sup> Technology at its pilot plant in Geleen, the Netherlands, and has started construction of the world's first commercial plant for FDCA in 2022, with planned large-scale production of PEF in 2024. The second technology is Ray Technology<sup>™</sup> and catalytically converts industrial sugars to plant-based MEG (mono-ethylene glycol) and plant-based MPG (mono-propylene glycol): plantMEG<sup>™</sup> and plantMPG<sup>™</sup>. Avantium is scaling up its Ray Technology<sup>™</sup> and the demonstration plant in Delfzijl, the Netherlands opened in November 2019. The third technology is called the Dawn Technology<sup>™</sup> that converts non-food biomass into industrial sugars and lignin in order to help transition the chemicals and materials industries to non-fossil resources. In 2018, Avantium opened the Dawn Technology<sup>™</sup> pilot biorefinery in Delfzijl, the Netherlands. Avantium also provides R&D solutions in the field of sustainable chemistry and is the leading provider of advanced catalyst testing technology and services to accelerate catalyst R&D. Avantium works in partnership with like-minded companies around the globe to create revolutionary renewable chemistry solutions from invention to commercial scale.

Avantium's shares are listed on Euronext Amsterdam and Euronext Brussels (symbol: AVTX). Avantium is incorporated in the Euronext Amsterdam SmallCap Index (AScX). Its offices and headquarters are in Amsterdam, the Netherlands.

*This press release by Avantium N.V. contains information that qualified or may have qualified as inside information for the purposes of Article 7 of the Market Abuse Regulation (EU) 596/2014 (MAR).*

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**For more information:**

Caroline van Reedt Dortland, Director Communications  
+31-20-5860110 / +31-613400179,  
mediarelations@avantium.com / ir@avantium.com