

Avantium and SCGC partner to bring CO₂-based polymers to pilot phase

AMSTERDAM, 29 June 2023, 18:00 hrs CEST – Avantium N.V., a leading technology provider in renewable chemistry, announces that it has agreed to partner with SCGC Chemicals Public Company Limited (“SCGC”), a leading integrated chemical player in Asia and an innovator of chemical innovations and solutions. Under this partnership, Avantium and SCGC agreed to further develop CO₂-based polymers and to scale-up to a pilot plant with an indicative capacity of 10 tonnes per annum.

Avantium is a frontrunner in developing and commercialising innovative technologies for the production of chemicals and materials based on sustainable carbon feedstocks, i.e. carbon from plants or carbon from the air (CO₂). One of Avantium’s innovative technology platforms, called Volta Technology, uses electrochemistry to convert CO₂ to high-value products and chemical building blocks including glycolic acid. By combining glycolic acid with lactic acid, Avantium can produce polylactic-co-glycolic acid (PLGA), a carbon-negative polymer with valuable characteristics: it has an excellent barrier against oxygen and moisture, has good mechanical properties, is recyclable and is both home compostable and marine degradable. This makes PLGA a more sustainable and cost-effective alternative to, for example, non-degradable, fossil-based polymers.

Since early 2023, Avantium and SCGC have been working together to further evaluate PLGA. To this end, Avantium has produced samples of different PLGAs, which have been evaluated at SCGC’s Norner AS facility. The two parties have now agreed to take the next step in their cooperation and establish a Joint Development Agreement. Under this agreement, Avantium and SCGC intend to further evaluate PLGA in order to subsequently scale up production of glycolic acid monomer and PLGA polyester in the next two years to a pilot plant.

Dr Suracha Udomsak, Chief Innovation Officer and Executive Vice President at SCGC comments: “SCGC is committed to cutting greenhouse gas emissions by 20% by 2030. To accomplish this, SCGC is not only looking into recycling and reducing plastic use, but is also investing in innovative sustainable solutions. Over the past months, SCGC has assessed PLGA samples and we are impressed with the sustainability and performance characteristics of this innovative material. We look forward to working together with Avantium in the years to come.”

“We are delighted that we have entered into this partnership with SCGC, a partner that understands that innovation and bold action is the key to lasting positive impact for a sustainable future. Under this partnership, we can further develop the very promising carbon-negative plastic PLGA and bring this material to the next commercialization phase. Both Avantium and SCGC would also welcome other strategic and complementary partners to participate in this collaboration”, says Tom van Aken, CEO at Avantium.

About SCGC

SCGC has consistently operated and extended its business over the past four decades and is the core business that delivers exceptional performance results for SCG Group. SCGC has developed “chemical innovations” to drive the region’s economy and industry while improving people’s quality of life under Sustainable Development Goals (SDGs) and ESG, striving toward Chemicals Business

for Sustainability. Our main business is the production of plastic resins or polymers molded into products used in our everyday lives, ranging from food packaging, automotive parts, medical equipment, electrical appliances to infrastructures, such as pressure-resistant pipes and telecommunication cables, among others. Additionally, SCGC operates other businesses connected to our primary business, including SCGC Floating Solar Solutions, clean energy solutions, emisspro[®] coating solutions for industrial furnaces, and many more. The chemical innovations developed by SCGC are pragmatic and applicable to daily lives and include innovations with industrial applications.

<https://www.scgchemicals.com/en/home>

About Avantium

Avantium is a leading technology development company and a frontrunner in renewable chemistry. Avantium develops and commercialises innovative technologies for the production of materials based on sustainable carbon feedstocks, i.e. carbon from biomass or carbon from the air (CO₂). The most advanced technology is the YXY[®] Technology that catalytically converts plant-based sugars into FDCA (furanedicarboxylic acid), the key building block for the sustainable plastic PEF (polyethylene furanoate). Avantium has successfully demonstrated the YXY[®] 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[™] and catalytically converts industrial sugars to plant-based MEG (mono-ethylene glycol) and plant-based MPG (mono-propylene glycol): plantMEG[™] and plantMPG[™]. Avantium is scaling up its Ray Technology[™] and the demonstration plant in Delfzijl, the Netherlands opened in November 2019. Avantium's Volta Technology uses electrochemistry to convert CO₂ into high-value chemical building blocks and sustainable plastic materials, including PLGA (polylactic-co-glycolic acid). 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.

For more information:

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