

Avantium awarded €1.78 million in total from EU grants for the development of electrochemical processes and CO₂-based polymers

AMSTERDAM, 27 May 2021, 07:00 CET – Avantium N.V., a leading technology company in renewable chemistry, announces that it has been awarded €1.78 million in total by the EU Horizon 2020 program for its participation in the CATCO₂NVERS¹, CO₂SMOS² and VIVALDI³ consortia, to be paid out by the EU in 4 tranches over a period of four years. All three consortium programmes aim to reduce greenhouse gas emissions (GHG) from industry by developing innovative and integrated technologies based on electrochemical, enzymatic, and thermochemical processes. Avantium's Volta Technology, a carbon capture and utilisation technology, fits well with this ambition.

Avantium's Volta Technology is a cutting-edge electrocatalytic platform that converts carbon dioxide (CO₂) into chemical building blocks and high-value products. These include (cosmetic) ingredients, such as formic acid, glyoxylic acid, and glycolic acid, and fuels. In close collaboration with the Industrial Sustainable Chemistry research team at the University of Amsterdam, Avantium is also working on developing CO₂-based polymers, materials that are traditionally made from fossil resources. With its Volta Technology, Avantium not only unlocks CO₂ as a new carbon source for the chemical industry, but also uses CO₂ that would otherwise be released into the atmosphere, allowing industry to reduce CO₂ emissions. Avantium is currently working on scaling up the Volta Technology in pre-pilot units that will be demonstrated at industrial sites in 2021.

The participation in the three research consortia CATCO₂NVERS, CO₂SMOS and VIVALDI allows Avantium to further improve the overall efficiency of its electrochemical processes and strengthen the leading position of Volta Technology in the field of electrochemical CO₂ conversion. In addition to Avantium, the CATCO₂NVERS, CO₂SMOS and VIVALDI consortia consist of leading academic and industrial organisations across Europe. Within these three programmes, Avantium will work on improving the downstream process steps for the production of formic acid from CO₂, converting formic acid and oxalic acid to high value products, such as glyoxylic acid and CO₂-based monomers, and developing electrode materials.

Erica Ording, team leader of Avantium's Volta team, comments: "We are pleased with the EU support for the development of electrochemical processes and CO₂-based polymers. The three grant programmes form an important step towards the commercialisation of carbon negative ingredients and materials. This closely aligns with Avantium's mission to bring everyday chemicals and materials to market without using fossil resources and to transition to a fully circular economy".

¹ The CATCO₂NVERS consortium consists of Funditec, Stichting Wageningen Research, CARTIF Technology Center, CSIC, University of Twente, Perseo Biotechnology, Hysytech, Nova-Institute, Artificial Nature, Sustainable Innovations Europe, Alchemia-Nova, Ava Biochem, Evyap, Johnson Matthey and Avantium.

² The members of the CO₂SMOS consortium are CARTIF Technology Center, Bio Base Europe Pilot Plant, CSIC, Novamont, Funditec, CERTH, Sintef, Rina Consulting, RWTH Aachen University, University of Twente, CO₂ Value Europe, Hera Holding, University of Amsterdam, Nadir and Avantium.

³ The VIVALDI consortium comprises Universitat Autònoma de Barcelona, University of Natural Resources and Life Sciences, Vienna, Luleå University of Technology, VITO, Helmholtz Centre for Environmental Research, LEITAT, Processium, University of Vic, CO₂ Value Europe, ISLE Utilities, Nutrition Sciences, SunPine, Sociedad Anónima Damm, Bioagra, Novamont and Avantium.

These projects have received funding as part of Horizon 2020 Europe under the Food and Natural Resources (FNR) program under grant agreement No 101000580 (CATCO₂NVERS), No 101000790 (CO₂SMOS) and No 101000441 (VIVALDI).

About Avantium

Avantium is a leading technology development company and a forerunner 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[®] plant-to-plastics-technology that catalytically converts plant-based sugars into a wide range of chemicals and plastics, such as PEF (polyethylene furanoate). Avantium has successfully demonstrated the YXY Technology[®] at its pilot plant in Geleen, the Netherlands. The second technology is the Dawn Technology[™] that converts non-food biomass into industrial sugars and lignin in order to transition the chemicals and materials industries to non-fossil resources. In 2018, Avantium opened the Dawn Technology[™] pilot biorefinery in Delfzijl, the Netherlands. The third technology is called Ray Technology[™] and catalytically converts industrial sugars to plant-based MEG (mono-ethylene glycol). Avantium is scaling up its Ray Technology[™] and the demonstration plant in Delfzijl, the Netherlands opened on November 7, 2019. Next to developing and commercialising renewable chemistry technologies, the company also provides advanced catalysis R&D services and systems to customers in the refinery and chemical industries. Avantium works in partnership with likeminded 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 included in the Euronext Amsterdam SmallCap Index (AScX). Its offices and headquarters are in Amsterdam, the Netherlands.

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