



## Avantium to open new plant for 2,5-furandicarboxylic acid (FDCA) starting from sugars

■ Avantium will inaugurate next October 22<sup>nd</sup> in Delfzijl, the Netherlands, its new demonstration plant with patented YXY<sup>®</sup> technology for the production of 2,5-furandicarboxylic acid (FDCA) starting from plant-based sugars and processing it through a catalytic reaction with biobased ethylene glycol, in FDCA, a key element for sustainable plastic PEF (polyethylene-furanoate).

PEF has superior barrier properties, higher mechanical strength (enabling thinner packaging) and a lower processing temperature (needing less energy) compared to conventional plastic made from fossil resources. The green chemistry intermediate FDCA can also be used as a biobased raw material for coatings, surfactants,

polyamides and polyurethanes. 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 (CO<sub>2</sub>). The company has successfully demonstrated the YXY<sup>®</sup> Technology at its pilot plant in Geleen and, as mentioned before, next October 22<sup>nd</sup>, will open the world's first commercial plant for FDCA in Delfzijl.

## Avantium aprirà un nuovo impianto per l'acido 2,5-furandicarbossilico (FDCA) a partire dagli zuccheri

■ Avantium inaugurerà il prossimo 22 ottobre a Delfzijl, nei Paesi Bassi, il suo nuovo impianto dimostrativo con tecnologia brevettata YXY<sup>®</sup> per la produzione di acido 2,5-furandicarbossilico (FDCA) a partire dagli zuccheri di origine vegetale, che converte attraverso una reazione catalitica (con glicole etilenico biobased) in FDCA (acido furandicarbossilico), elemento chiave per la plastica sostenibile PEF (polietilene furanoato).

Il PEF ha proprietà barriera superiori, una resistenza meccanica più elevata (che consente imballaggi più sottili) e una temperatura di lavorazione più bassa (che richiede meno energia) rispetto alla plastica convenzionale ottenuta da risorse fossili. L'intermedio della chimica verde FDCA può essere utilizzato anche come materia prima a base bio per rivestimenti, tensioattivi, poliammidi e poliuretani.

Avantium sviluppa e commercializza tecnologie innovative per la produzione di materiali basati su feedstock da carbonio sostenibile, ovvero carbonio dalla biomassa o carbonio dall'aria (CO<sub>2</sub>). L'azienda ha dimostrato con successo la tecnologia YXY<sup>®</sup> nel suo impianto pilota a Geleen e, come detto in precedenza, il 22 Ottobre, inaugurerà il primo impianto commerciale al mondo per FDCA in Delfzijl.



# NOVACHEM

INNOVATIVE COLOURS  
THROUGH RESEARCH

**NOVJET**  
Water based pigment dispersions for ink jet printing, designed for **non absorbent substrates** flexible **food packaging** included. White is also available.

**NOVHYBRID**  
**WOOD • GLASS • LEATHER**  
Environmentally friendly highly concentrated water-based solutions: excellent transparency, high light fastness and **metal free**.

**NOVA**  
High Performance Organic Pigments.

**NOVATECH**  
Highly concentrated dispersions with **high transparency** and high light fastness for solvent based systems.

**MME**  
**METAL MIRRORING EFFECT**  
Sustainable alternative to metallization and de-metallization processes.

**NOVALACK**  
Universal highly concentrated solutions of metalcomplex dyes, both for water and solvent based systems.

NOVACHEM Srl - Via Galvano Fiamma, 28 - 20129 Milano - Italy ☎ +39 02 54012856 ☎ +39 02 55011476 🌐 www.novachemitaly.com ✉ novachem@novachemitaly.com