

4th GENERATION MATER-BI APPLICATIONS AVAILABLE ON THE MARKET THANKS TO THE WORLD'S FIRST INDUSTRIAL SCALE PLANT FOR THE PRODUCTION OF BIO-BUTANEDIOL

At the K 2016 Novamont presents the 4th generation of its MATER-BI bioplastics family now integrating 4 proprietary technologies, among which bio-butanediol. Thanks to collaboration with its partner Mobert, visitors to the Novamont stand will be shown new applications in the field of thin films (for fruit & veg bags); Polyrema will demonstrate a special cold-stretch technology whereas Amut will be presenting in-line plates produced with a new, very high performance degree of heat resistance.

Novara - Dusseldorf, 19 October 2016 – The Novamont Mater-Biotech plant at Bottrighe in the region of Venice was inaugurated just over 2 weeks ago. The new plant will be entirely dedicated to production **on an industrial scale of bio-butanediol directly from sugars and using bacteria.**

A chemical compound derived from butane, butanediol (1,4 BDO) is a chemical intermediate obtained from fossil sources widely used both as a solvent and for the production of plastics, elastic fibres and polyurethanes, with a market of 1.5 million tonnes and approximately €3.5 billion per year and which it is estimated will reach 2.7 million tonnes and more than €6.5 billion by 2020.

Using technology developed by Genomatica - a California-based company leaders in the field of bioengineering- Novamont has developed a biotechnological platform which takes sugars and transforms them into bio-butanediol through the action of suitably engineered e.coli type bacteria.

The combination of Novamont's industrial research and know-how and the revolutionary Genomatica technology **has given rise to a product which will be produced on an industrial scale: 30,000 tonnes per year when fully operational**, with **CO₂ savings of at least 50%**. The environmental sustainability of Novamont's bio-butanediol is also enhanced by the energy efficiency of the Bottrighe Mater-Biotech plant, which has been designed to reutilise the by-products derived from the process in order to satisfy the plant's energy requirements, thereby optimising the entire process life cycle.

But the scope of this innovation, when put into the context of the Novamont integrated bio-refinery project, goes beyond the availability of new technologies, bio-based products and the contribution these can make to the need to "decarbonise" planet Earth. As Catia Bastioli, Novamont CEO, puts it: "Mater-Biotech is just one facet of a system of world-leading interconnected plants which we must look on as a **formidable accelerator**, a way of multiplying opportunities in the bioplastics and chemicals fields for the producers of raw materials, for the producers of finished products, for new entrepreneurial initiatives, for the creation of jobs, and for those who are concerned about planning a future with greater environmental and social sustainability".

With the opening of the Mater-Biotech plant, Novamont is now adding a fundamental element to its **model for a bioeconomy which it sees as the regeneration of local areas**, taking over abandoned factories or sites in serious difficulty and regenerating them as true and proper "bioeconomic infrastructures"..

Today, Novamont has revitalised 6 such sites and has fine-tuned 4 world-leading technologies which can be multiplied in accordance with its model for a bio-refinery model integrated in the local area, in which technologies and products are developed to provide concrete solutions to large-scale problems such as the recycling of organic waste.

"Mater-Biotech, together with the Novamont research centres in Piana di Monte Verna and Novara, represents a formidable platform for industrial biotechnologies, from basic research to flagship plants", - concludes Bastioli - "a great opportunity to create competitive edge in partnership with other entities in the academic and industrial sectors".

When fully operational, the Bottrighe plant will employ some seventy people, with another 180-200 in the supply chain.

K 2016/NOVAMONT: HALL 6 A58

The Novamont Group is world leader in the development and production of bioplastics and biochemicals through the integration of chemistry, the environment and agriculture. With 600 employees, the Group posted sales of €170 million in 2015 and made continuous investments in research and development activities (6.4% of its 2015 turnover, 20% of its staff) and has a portfolio of around 1,000 patents. The group has its headquarters in Novara, a production facility in Terni and research laboratories in Novara, Terni and Piana di Monte Verna (CE). The Novamont subsidiaries are based in Porto Torres (SS), Bottrighe (RO), Terni and Patrica (FR). Active in Germany, France and the United States through commercial offices and a representative office in Brussels (Belgium), Novamont operates through own distributors in Benelux, Scandinavia, Denmark, the United Kingdom, China, Japan, Canada, Australia and New Zealand.

Novamont Press Office

Francesca De Sanctis - francesca.desanctis@novamont.com - tel.: +39 0321.699.611 - cell.: +39 340.1166.426