An innovative biorefinery will process and transform mushroom farming by-products into high value products.

Amsterdam (The Netherlands), Wednesday, November 30th, 2016.

Each year, the European Union produces around 90 million tonnes of food waste, 38% of which is directly produced by the food-manufacturing sector. If we focus on the mushroom farming industry alone, each week more than 60,000 tons of mushroom disregarded outputs are generated in Europe. These are basically treated as an unwanted by-product and used for low value applications. There are, however, major opportunities to turn these outcomes into high value products and this is exactly what the FUNGUSCHAIN project aims to do, by means of setting up innovative processes in a new biorefinery.



The FUNGUSCHAIN project logo

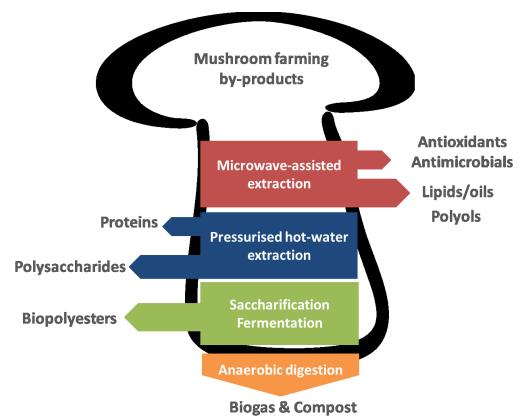
This unique consortium is coordinated by Dr. Bart van der Burg of BioDetection Systems B.V., The Netherlands (BDS), and consists of 16 partners from 10 different European countries, including research institutes and 12 different companies that are leaders in biobased economies.



The FUNGUSCHAIN project partners

The project, with a budget of 11 million euros, is co-funded by the Bio Based Industries Joint Undertaking (BBI JU) under the European Union's Horizon 2020 research and innovation programme. The BBI JU is a new €3.7 billion Public-Private Partnership between the EU and the Bio-based Industries Consortium. Operating under Horizon 2020, it is driven by the Vision and Strategic Innovation and Research Agenda (SIRA) developed by the industry, and will boost the bio-based economy.

FUNGUSCHAIN will make use of new cascading processes to extract high value molecules from the fungal residue following the requirements of a range of end-users. A first extraction will yield antimicrobials & antioxidants, proteins, polyols and polysaccharides. Further processing will complete the value chain for delivering cleaning, food and plastic products. The remaining residues will be used for composting or biogas synthesis, thus closing the agricultural cycle.



Funguschain project approach

FUNGUSCHAIN has just celebrated its first meeting in Amsterdam at BDS' premises. Dr. Bart van der Burg, project coordinator and Director of Innovation at BDS, stated: "The FUNGUSCHAIN project is a highly integrated project with a unique consortium covering all the key elements in a range of value chains. It brings together leading scientists and companies that from the beginning of the project have been eager to interact to make this challenging project into a success. It will provide an important example of a new way of working in a biobased economy, thereby helping to make the essential change that is needed for a sustainable future development of Europe and beyond. We are extremely honoured and proud to lead this initiative".



Consortium map

The partners participating in the consortium are the following: 4 large industries (Corbion, Novamont, S.p.A, Monaghan Mushrooms Group, Saponia d. d.) 8 SMEs (BioDetection Systems BV, Biotrend SA, Biozoon GmbH, Condensia Química SA, Mi-Plast d.o.o., Neem Biotech Ltd., OWS, Tecnaro Gesellschaft zur Industriellen Anwendung Nachwachsender Rohstoffe Gmbh) and 4 research and technology development entities (AITIIP Technology Centre, European Centre for Nanostructured Polymers, University of Alicante and KTH Royal Institute of Technology).

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