

SC2 and KET-B Brokerage Event

Food Security | Sustainable Agriculture and Forestry | Marine, Maritime
and Inland Water Research | Bioeconomy | KET-Biotechnology |

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BioHorizon



Session 3: Food & Natural Resources + KET Biotechnology

Urban waste valorisation and plastic upcycling

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ITENE



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CE-BIOTEC-09-2020: Upcycling bio-plastics of food and drink packaging

Sustainability:

- collection, logistics, sorting (tracers), delamination, decontamination, characterisation of waste
- mechanical/chemical/enzymatic recycling, biodegradability
- LCA, eco-design, co-creation/awareness

Advanced materials:

- bio-based material development that can be degraded in aquatic environments and recyclable to close the loop
- PHA, PLAS formulations and compounding, material characterisation, food safety / regulations.


PlastiCircle
TOO VALUABLE TO WASTE

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CE-FNR-17-2020: Pilot circular bio-based cities – sustainable production of bio-based products from urban biowaste and wastewater

Sustainability:

- collection, logistics, waste requirements for treatment (drying, stabilisation of waste)
- bioprocess development/optimisation, valorisation of biowaste (2nd generation fermentable sugars, organic acids, and biopesticides/biostimulants)
- enzymatic/chemical pretreatments design, biodegradability, compostability, LCA

Advanced materials:

- new biopolymer production: biopolymer and biobased oligomer extraction and purification, e.g. lactic acid, biopolyester synthesis, PHA production through OFMSW fermentation
- lignocellulosic high added value products: extraction, production and applications
- production of biopolyesters and PHA, chitosan and chitin nanowiskers
- characterisation of materials, food regulation
- development and formulation of new biopolymeric grades applied for packaging material

SCALIBURLEADING A REVOLUTION
IN BIOWASTE RECYCLING

WWW.SCALIBUR.EU

**DEEP
PURPLE**www.ncp-biohorizon.net

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**ITENE: Packaging, transport & logistics research centre
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