

#### CIRCULAR BIOECONOMY CONFERENCE & B2MATCH

**ENABLING SUSTAINABILITY AND RESILIENCE** 

MILAN, FEBRUARY 15 2023 UNIVERSITÀ DEGLI STUDI DI MILANO – BICOCCA



**INTERNATIONAL BIOECONOMY CONFERENCE 9:00 - 13:00** 

**AULA U2 - 01 PIAZZA DELLA SCIENZA, 3** 



**B2MATCH 14:00 - 18:00** 

AULA U1 - 05 PIAZZA DELLA SCIENZA, 1













Industry Potential for the European Bioeconomy





# Circular Bioeconomy Conference Enabling sustainability and resilience

Hemp Club

Milan 15/02/2023



Lena Decuyper, PhD

Project Acquisition Coordinator at Bio Base Europe Pilot Plant and Coordinator of the REPurpose project











## Repurposing post-consumer waste into recyclable rubbery plastics

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Our expertise towards a circular plastics industry

## REPurpose in a nutshell

- 1/9/2022 31/8/2026
- 6.06 M€
- Coordinated by Bio Base Europe Pilot Plant
- 9 partners and 1 associated partner







#### Our team

























#### REPurpose concept

Recyclable Elastomeric Plastics safely and sUstainably designed and produced via enzymatic Recycling of Post-cOnsumer waSte strEams



Local post-consumer waste

#### Project scope

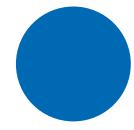
**Develop** and validate the production of a platform of safe- and sustainable-by-design, additive-free thermoplastic elastomer prototypes from local post-consumer waste with intrinsic biodegradability and recyclability properties



Ensure the safety and recyclability of plastic



**Enhance SSBD** processes in the plastics sector



Demonstrate sustainable conversion for elastomeric plastics



Strengthen public awareness and support for sustainable plastics standards

#### Our activities

Project management wp1 Safety and Sustainability by design Technology transfer reports for REP polymers development building block Production of P&C waste and analysis and polymer and lignin-based monomers production REP product development and Plastizyme engineering, wp6 prototyping production and application bio and waste-based building blocks and SSbD product REP circularity and End-ofprototypes wp7 Life

wp8

Exploitation, dissemination and communication

Bio-based

feedstock,

cardboard,

plastic waste

paper &

#### REP Products



- Involvement of end users from the beginning of the project
- Focus on three sectors: building & construction, automotive and transport, and consumer goods
- Role: Application testing, feedback and advice on material requirements
- Outcome: co-development of new plastics and end products, technoeconomic validation of the project





















YOU?



**FAIR** 

bicycle







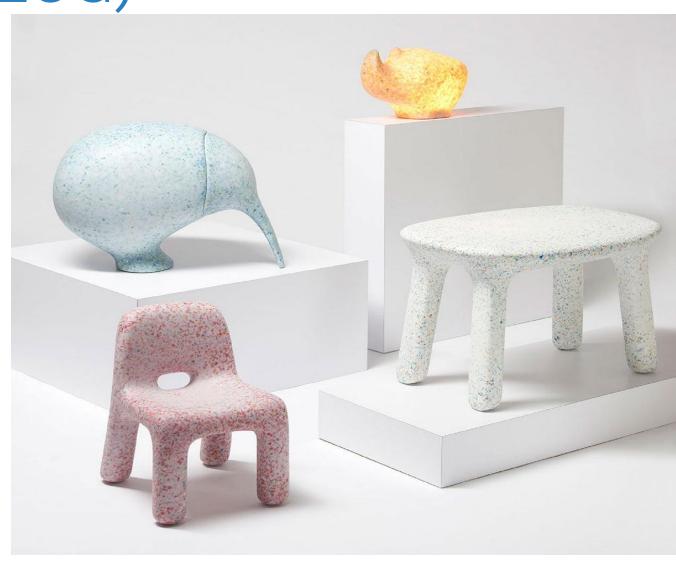






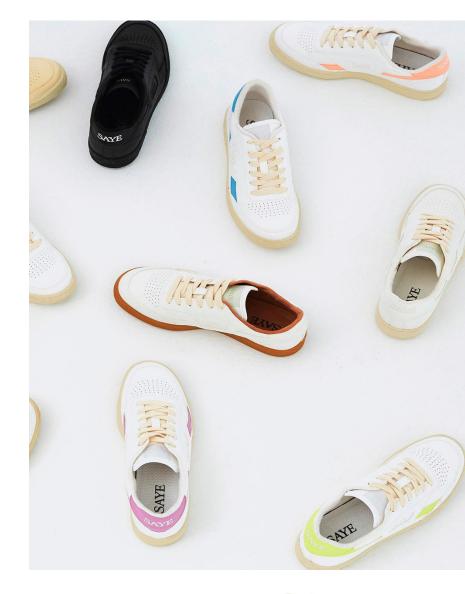








SAYE







YOU?

Funded by the European Union. Grant Agreement No 101057971

### Advisory Board (AB)

 Role: Advice, feedback, and support on REPurpose methodology and solutions









## Follow the REPurpose activities









Shortcut linktr.ee





#### Bio Base Europe Pilot Plant

Turning grams into tonnes



## Who are we?



#### Multi-purpose pilot facility for biobased products and processes





2008

2010

2023

Founded as non-profit SME in Ghent, BE

Plant operational

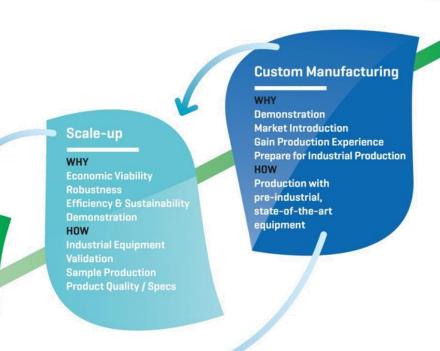
>170 employees

>25 M€ turnover

#### What do we offer?



Fully independent service provider helping you to bridge the Valley of Death with infrastructure and expertise



#### Process Development

#### WHY

Cost Efficiency Scalability Sustainability

#### HOW

Technology Transfer
Development & Optimisation
Proof of Concept



Laboratory (TRL 1)

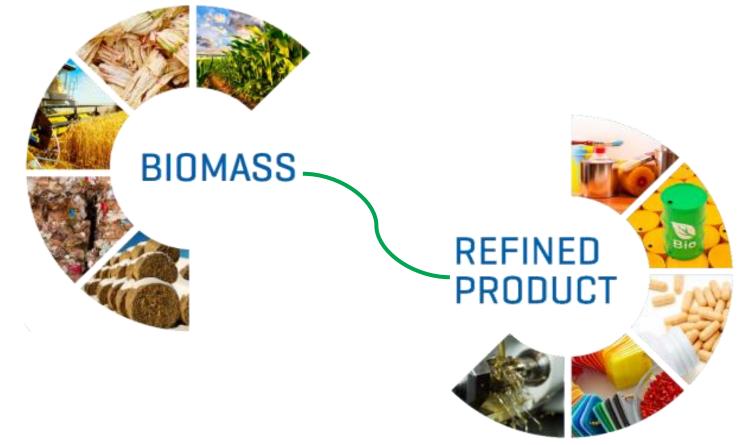


Industrial Production (TRL 9)



#### Why BBEPP?



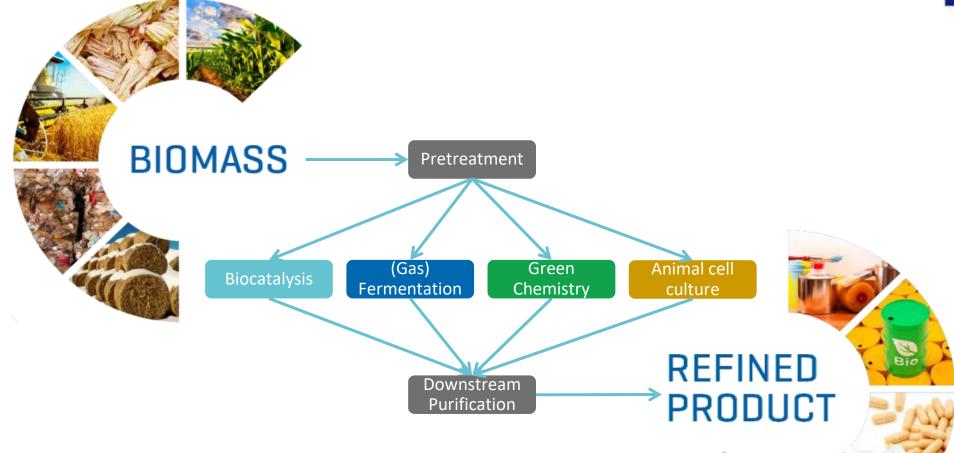


A one-stop-shop boosting the bioeconomy, Enabling circularity, sustainability and resilience



Why BBEPP?



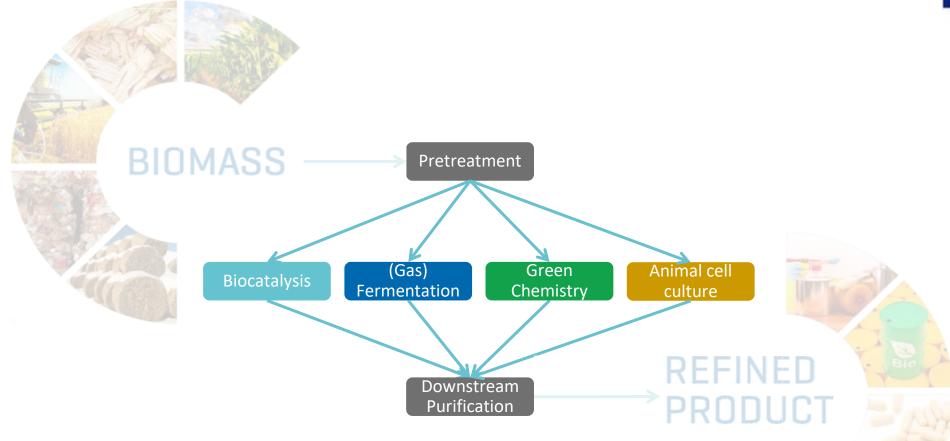


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Why BBEPP?

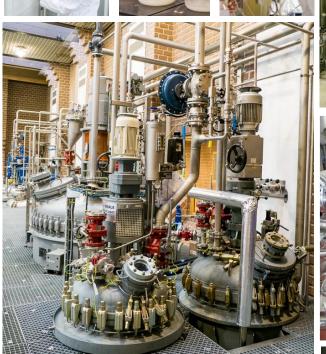




A one-stop-shop boosting the bioeconomy, Enabling circularity, sustainability and resilience





















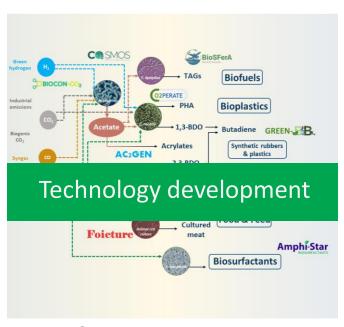


#### What do we do?









- Gas fermentation
- Alternative proteins & cultured meat
- Biosurfactants

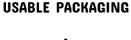
#### What do we do?



#### Plastics-related projects in the area of circular economy























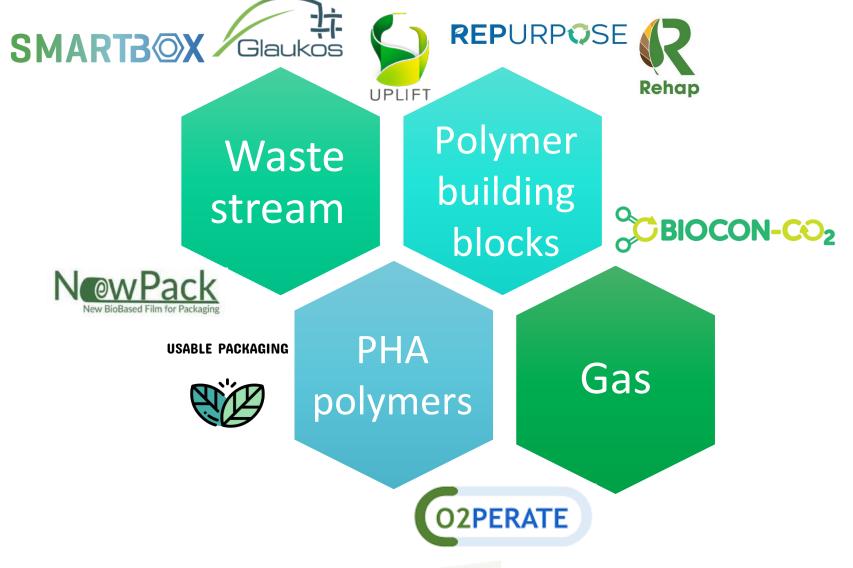






More info: www.bbeu.org







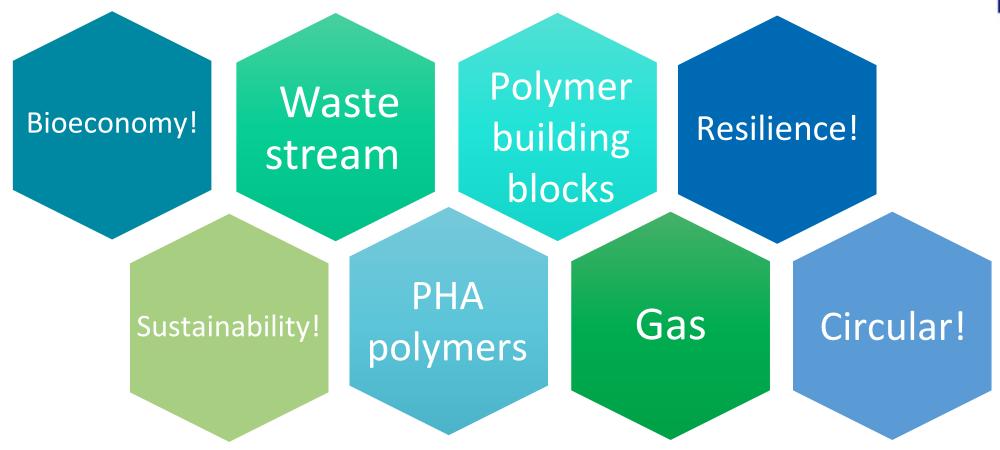




















## Questions about the REPurpose project or the BBEPP facilities and projects?

#### Reach out!

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