WaysTUP!

VALUE CHAINS FOR DISRUPTIVE TRANSFORMATION OF URBAN BIOWASTE INTO BIOBASED PRODUCTS IN THE CITY CONTEXT

BIOSOLVENT ETHYL LACTATE FROM WASTE-BASED BIOETHANOL

UPGRADING PRIMARY BIOREFINING PRODUCTS: VALUE-ADDED BIOSOLVENT

WASTE-BASED BIOETHANOL & LACTIC ACID

1.7 kg bioethanol
3.6 kg lactic acid

DEHYDRATION

SIMULTANEOUS REACTION AND SEPARATION

PURIFICATION

ETHYL LACTATE

12 MJ/kg

4.2 kg

117 kg biowaste per capita per year in EU = over 1.5 million tons of biosolvent

THE PRODUCT

Ethyl lactate is an established bio-degradable solvent for the chemical industry (food & pharma, industrial cleaning, microelectronics production). It offers beneficial properties for worker safety and environment. Additionally, it can potentially be used in paints and coatings. The market is growing, fostered by EU legislation for chemicals and Volatile Organic Compounds (VOC) reduction policy.

THE PROJECT

The EU funded WaysTUP! project aims to demonstrate the establishment of new value chains for urban biowaste utilisation to produce higher value purpose products through a multi-stakeholder approach in line with the circular economy.

This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreement no. 818308.

THE PLANS

- Looking for investors/funding for a demo plant.
- Licensing and continued process development with industrial partner.

tbw RESEARCH

tbw research is a non-profit SME involved in applied research towards a circular bioeconomy. We build bridges between basic research and the industry. We are looking for investors from the industry, who are willing to adapt innovative processes and get fit for a sustainable future.

tbw RESEARCH

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THE TEAM

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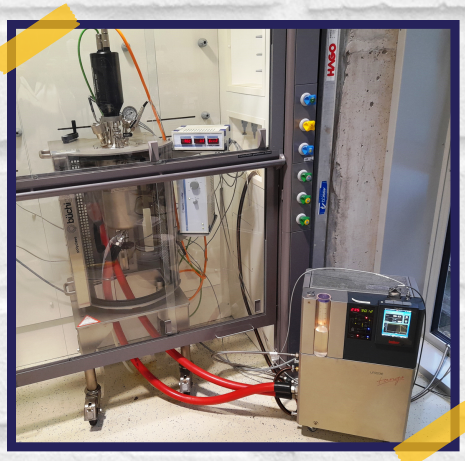
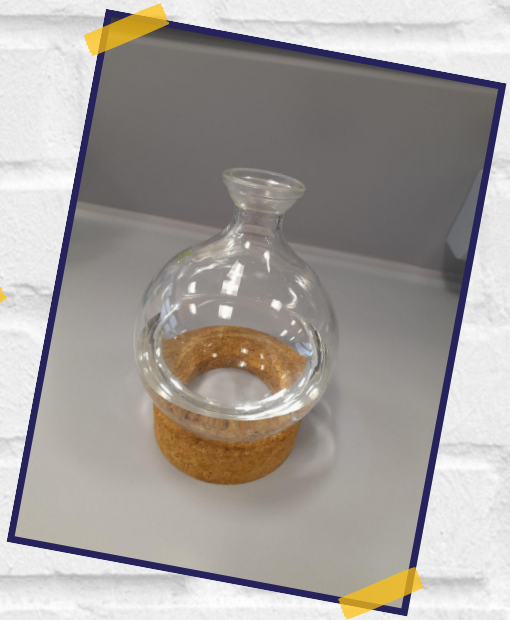
THE PILOT

tbw research has developed an innovative process for the production of ethyl lactate. The energy demand is largely reduced by simultaneous reaction and separation causing process intensification. The technology was developed in the frames of WaysTUP! pilots' activities.





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