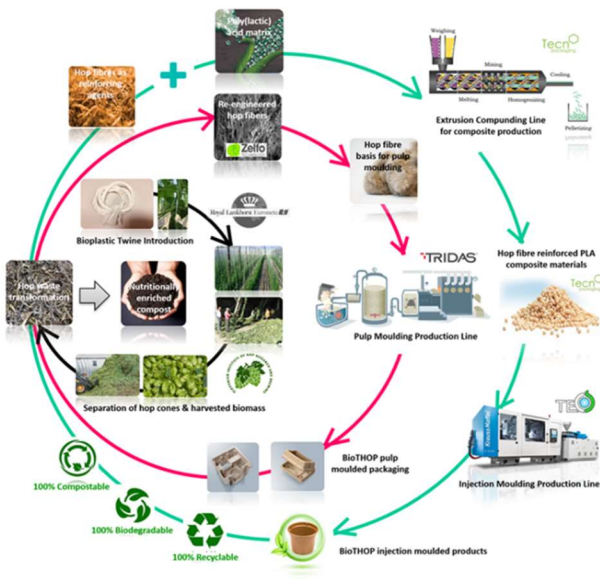


BioTWINE hop waste transformation into novel product assortments for packaging and horticulture sector

Final conference

15th November 2022



The aim of the project was to replace the polypropylene twine on the hop fields with twine made of renewable material polylactic acid (PLA), that degrades at proper on-site composting to simple monomers (H₂O, CO₂ and biomass). Hop plant biomass after harvest can be used as main ingredient of composting and afterwards used as an organic fertiliser or material to produce biodegradable products (biocomposites, planting pots, and bottle packaging). Therefore, the agro-waste can be drastically reduced and the economy of the sold agro-waste to bioplastic producers can be increased.

The goal was to introduce the circular economy and resource efficiency in hop production, to completely upcycle the hop waste in hop production and to improve energetic efficiency.

BioTHOP Consortium forms a transnational partnership, comprised of 7 partners from 5 EU Member States: Slovenia, Portugal, Spain, Germany and Czech Republic.

Slovenian Institute of Hop Research and Brewing was Coordinating Beneficiary. Portuguese Lankhorst Euronete Group was in charge of development of on-site compostable PLA twine for hop-growing sector. German Zelfo Technology developed a technology to reengineer fibres from hop plant waste to be usable in fibre pulp moulding applications and extrusion compounding transforming processes. TRIDAS from Czech Republic invented moulded bottle packaging. Spanish Tecnopackaging has led the development and production of biocomposite from hop fibres and PLA for production of injection and extrusion moulding of biodegradable products. Tecnopackaging prepared biocomposite for Slovenian company TECOS who injected planting pots for horticulture. The 3rd Slovenian partner was Development Agency Savinja that unites 6 municipalities of Lower Savinja Valley.



<https://www.life-biothop.eu/>

Attendance is free and welcome.



This project is cofunded by the Life Programme (Grant Agreement No. LIFE18 ENV/SI/000056) Slovenian Ministry for Environment and Spatial Planning, Municipalities: Žalec, Vranksko, Polzela, Braslovče, Tabor, Prebold) and Association of Slovenian Hop Growers.



To join - click on the following link on 15th Nov. at 8:45 ☺

<https://us06web.zoom.us/j/85999593412?pwd=NFgxQkpzc3VhOUM5SVg3OHl0VDJlUT09>

AGENDA

9.00 – 9.15 Registration of Attendees

9.15 – 9.35 Official opening

Dr **Barbara Čeh**, project manager
Mr **Bojan Cizej**, Slovenian Institute of Hop Research and Brewing (IHPS) manager
Dr. **Darja Majkovič**, Director of the Žalec municipality
Mr **Janez Oset**, Slovenian Hop Growers Association president and the Officer of the Order of the Hop – awarded by the International Hop Growers' Convention
Ms **Tatjana Orhini Valjavec**, Ministry for Environment and Spatial Planning of Republic Slovenia, National Contact Point for Life (Environment)
Dr **Martin Pavlovič**, the International Hop Growers' Convention (IHGC) General Secretary

9.35 – 11.00 Life BioTHOP project's results presentation

Project's idea, goals and project's recognition

Dr Barbara Čeh, project manager – IHPS (Slovenia)

Compostable BioTHOP twine for hop growing sector – A success story

Fernando Eblagon – Lankhorst Yarns (Portugal)

Validation report on BioTHOP twine performances from hop field experiments in Slovenia and abroad

Žan Trošt – IHPS (Slovenia)

On-site hop biomass composting – from no experiences to guidelines for good quality on-site produced compost

Ana Karničnik Klančnik – IHPS (Slovenia)

Questions and answers

11.00 – 11.15 Coffee break – Project showcase - milestones achieved

11.15 – 13.10 Life BioTHOP project's results presentation

From hop waste biomass to fibres for pulp moulding process and for biocomposite preparation – challenges, opportunities, and plans to reach different markets

Richard Hurding – Zelfo Technology (Germany)

Making bio-composite from hop fibres, inject 13 biodegradable and compostable products and how we are reaching different markets

Irene Serrano – Tecnopackaging (Spain)

Transferring the BioTHOP bio-composite to biodegradable and compostable planting pots and industrialization plan

Mr Peter Fajs – Tecos (Slovenia)

Hop fibre transformation into moulded fibre wine bottle packaging, replication of the process for other packaging products and step to the market

Ms Kristina Sukova – TRIDAS (Czech Republic)

Reaching environmental goals within and after LIFE BioTHOP

Monika Oset Luskar – IHPS (Slovenia)

Questions and answers

Group photo of all participants ☺

13.10 – 13.20 Coffee break – Project videos

13:20 – 14.30 **Supporting resource efficiency and circular economy within other EU projects**

Plastic in Agricultural Production: Impacts, Lifecycles and LONG-term Sustainability

Dr Anita Jemec Kokalj – Biotechnical Faculty (Slovenia)

LIFE Populair – Air pollution caused by waste burning and the effects on human health

Ms Andrea Žitňanová Ministry of Environment of the Slovak Republic (Slovak Republic)

LIFEPLASMIX – Innovations in Plastic Recycle Technologies

Ms Teresa Simorte Gancedo – FCC Medio Ambiente, S.A.U Waste Treatment Department (Spain)

FISH4FISH: Fish chitinolytic biowastes for the production of a compostable packaging material

Dr Rebecca Pogni - University of Siena (Italy)

Questions and answers

14:30 **Closure**
