

Exploring Future Horizon Europe Projects: Phytowelt's Vision for Sustainable Innovation

Dr. Peter Welters 30.01.2024



#### Future Horizon Europe Projects



#### **Exploring Future Horizon Europe Projects:**

- > Development of Poplar Populations for Efficient Phytoremediation.
- ➤ Sustainable Production of Flavors, Sugars, and Aromatic Chemicals. from Poplars and its wood ingredients such as ferulic acid.
- Exploration of Sustainable Land-Use Practices / Regenerative Agriculture.
- > Market Introduction of Myricetin and Eriodictyol.

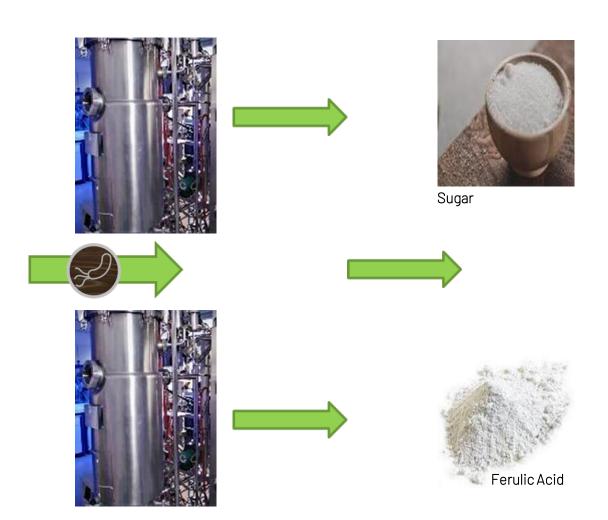


### Phytowelt's goal





Phytowelt's polypoloid Poplar





Vanillin

#### What we are looking for



- ➤ Phytowelt, a pioneer in Zero-Waste-Bio-Refinery, seeks partners for innovative projects.
- > Specific partnership areas:
  - Aroma/Perfume components (Vanillin, Flavonoids like Myricentin and Eriodictyol)
  - Partners for sugar/ferulic acid production from poplar wood.
  - Seeking a landowner partner willing to provide suitable land for realistic research on phytoremediation.
- > Open to diverse collaborations, especially with partners sharing similar innovation goals.



#### Patents Developed by Phytowelt



Protein

Recombinant Pharma-protein production (Biosyn):

1999 Recombinant Mistellektine, DE000019804210A1

**2007** Recombinant mistletoe lectin, US7265217B2

Polyamide out of Plant Oils

Polymer production from renewable raw materials (Evonik):

**2010** Omega-amino carboxylic acids, omega-amino carboxylic acid esters, or recombinant cells which produce lactams thereof, US 20100324257 A1

Aroma (Flavonoid)

Aroma production from renewable raw materials (Symrise):

In 2015, a method for the enzymatic production of 3,4-O-dimethylated cinnamic acids, 3,4-dimethoxyphenethylamines, and 4-O-methylated cinnamic acid amides was patented under EP 3050971 A1.

Aroma (out of Tetraterpenes)

Chiral-pure production of a flavouring agent (Phytowelt):

2016 Process for fermentative alpha-ionone production, WO2017036495A1

Adhesive (Diterpen)

Fermentative production of adhesive monomers (Jowat):

In 2018, a method for the fermentative de novo synthesis of resin acids was patented under the patent number WO2018211002A1.

Biocatalyst for the production of an amino acid (Wacker):

**2020** Biocatalyst as a core component of an enzyme-catalyzed redox system for the biocatalytic reduction of Cystine, WO2021197632A1

**Amino Acid** 





## www.edaphos.eu

# Thanks for your Interest!



Head Office Kölsumer Weg 33 41334 Nettetal Germany Dr. Peter Welters CEO

p.welters@phytowelt.com

T.: +49 2162-77859

