

ValChem

Value added chemical building blocks and lignin from wood

Summary

The ValChem project aims to demonstrate the viability, both technically and economically, of producing wood-based chemicals that are competitive with similar products based on fossil-based raw materials in terms of quality and production costs.

All the processes that will be used have already been demonstrated at least at a pilot scale. The main process aims to demonstrate valorisation of over 75 percent of the wood-based raw material.

Objectives

- Demonstrate a sustainable and integrated process whereby wood is transformed into lignin-based performance chemicals and mono-propylene glycol as the selected platform chemical.
- Show that this process can produce wood-based chemicals that are competitive with identical or similar-in-application products based on fossil raw materials in terms of quality and production cost.
- Perform pre-marketing and application tests in the largest markets for mono-propylene glycol (unsaturated polyester resins, paints and coatings, heat-transfer, de-icing, and personal care) as well as the envisaged lignin-based performance chemicals (main market: reactive applications with a high value added).



<http://www.valchem.eu>

Type of Action:
Innovation Action -
Demonstration

Value Chain: VC1 –
lignocellulose

Start date: 01 July 2015

End date: 30 June 2018

BBI JU contribution:
€13.125.941

Expected impacts

- Increased regional development and investment, as potential future plants based on this technology will need to be located in rural areas due to biomass availability.
- Valorisation of over 75 % of the wood raw material, and 2-6 times higher added value of wood-based chemicals compared to traditional products.
- Increased sustainability of wood production (as more wood with PEFC and FSC certificates will be used) and industrial processing.

- UPM-Kymmene (Finland)
- Sekab E-Technology AB (Sweden)
- METabolic EXplorer (France)
- Technische Universität
Darmstadt (Germany)

Project coordination

Name: Peter Röger

Organisation name: UPM-Kymmene (Finland)

Phone: +49 (0)821 3109 394