Press release
October 15, 2020

RESOLUTE PROJECT KICK-OFF
October 15, 2020
Online

BIOECONOMY | BIO-BASED INDUSTRIES INNOVATION ACTION | FLAGSHIP | RESOLUTE PROJECT

Launch of a new H2020 project aiming to pave the way for the production, at full industrial scale, of a novel, nontoxic and high performing solvent derived from wood biomass.

- **RESOLUTE** – HIGH PE**R**FORMING AND SAF**E SOL**VENT DERIVED FROM CELL**U**LOSIC FEEDS**T**OCKS
- €11,6 million European grant of private-public partnership "Bio-Based Industry Joint Undertaking"– €23 million of total budget.

The RESOLUTE project brings together 11 European partners and was successfully launched online, on October 15, 2020. Over the next 3 years, it will create a first of its kind industrial plant and value chain for 99% pure Cyrene - a non-toxic solvent made from certified and renewable wood biomass and a highperforming alternative to traditional solvents.

CONTEXT AND OBJECTIVES

The Chemical sector is today facing a number of challenges that is driving demand for higher performing and safer chemicals derived from biomass. In the meantime, in the face of

declining demand for paper, the pulp and paper industry is actively exploring opportunities to diversify into new areas or business including bio-based chemicals.

In response to these needs, Circa has developed, at demonstration scale, a proprietary process to produce a novel bio-based building block - Levoglucosenone (LGO) using by-products from the pulp and paper sector. From LGO can be derived a wide range of chemicals including solvents, specialty polymers, flavours & fragrances, pharmaceutical and agrochemical actives.

Circa's first commercial product – a novel solvent trademarked as Cyrene – has already been trialled by more than 400 compagnies and researchers across the world and, for a growing number of applications, outperforms traditional dipolar aprotic solvents.

Building on Circa group's unique experience gained over the last 10 years via its 4 pilots and its operating demonstration plant, one of ReSolute's key objectives will be to build and successfully operate a first-of-its kind Flagship Cyrene plant.

The biorefinery will be built in France on the Carling Saint-Avold platform site owned by Total. The Flagship plant is expected to be mainly fed with saw dust and have a nameplate capacity of 1,000 metric tonnes per year and will look to valorize the main by-product (biochar) in the energy and activated carbon markets.

INNOVATION

ReSolute innovation lies in:

- The unique properties of novel solvent Cyrene, making it a high-perming, safe and more sustainable alternative to current reprotoxic solvents
- The first biorefinery in the world to transform, in a single-step process, wood biomass into highly functional building block LGO and convert LGO into valuable derivatives including Cyrene
- The unique advantages of the Furacell™ process (i.e. continuous, high selectivity towards LGO) allowing the cost competitive production of LGO and Cyrene
- New whole value chains from wood biomass to products made using Cyrene that could be replicated in other parts of Europe

APPLICATION FIELDS

By converting wood biomass into a green solvent with various applications, the project will connect by the end of the project the wood-processing industry (Pulp and paper sector) to numerous other industries, which historically relied on petrochemical inputs. These include:

- Energy storage sector;
- High-performance materials sector;
- Pharmaceuticals sector;
- Wastewater treatment sector;
- Electronics sector;
- Research sector.

A MULTI-STAKEHOLDER PROJECT

RESOLUTE brings together 11 European partners

IAR Cluster (France)
CIRCA (Belgium)
Merck KGaA (Germany)
University of York (United Kingdom)
AgroParisTech Innovation (France)
Huntsman (Germany)
Talga Advanced Materials GmbH (Germany)
Will & Co (the Netherlands)
CPL Industries Limited (United Kingdom)
PNO Consultants (France)
PFA Brussels (Belgium)

Duration: 36 months (October 2020 - September 2023) | Total budget: €23 M

This project has received funding from the Bio Based Industries Joint Undertaking (JU) under grant agreement No 887674. The JU receives support from the European Union's Horizon 2020 research and innovation programme and the Bio Based Industries Consortium.

For more information, please refer to the European Commission website:

https://cordis.europa.eu/project/id/887674/fr

PRESS CONTACT:

Sophie MURIAS
Communications & European Projects Officer
IAR, the French Bioeconomy Cluster
murias@iar-pole.com | +33 6 12 54 01 99