### **Project Duration:**

# 51 Months

from October 2020 to December 2024

€11,6 M Funding from the European Union's Horizon 2020 research and innovation programme and the Bio-based Industries Consortium (BIC)

€55M Total budget

# 11 partners

from 6 European countries:

4 SMEs (Circa, Will & Co, Talga Advanced Materials and Vitis Regulatory Ltd)

4 large companies (Merck, Coal Products Limited, PNO Consultants and Huntsman Advanced Materials)

2 academics (University of York and AgroParisTech Innovation)

Tinnovation cluster (Bioeconomy For Change)

# ReSolute

#ReSolute #Flagship #Biorefinery #LGO #Levoglucosenone #Biosolvent #Cyrene #Furacell #biodegradable #recyclable #sustainable #zerowaste

www.resolute-project.eu

ReSolute Project



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# **R**eSolute

The BBI JU flagship project to build a first-of-itskind industrial plant and sustainable value chain for the production of a novel, **safer and high perfoming biosolvent Cyrene™** 



## CONTEXT & CONCEPT

### INDUSTRIAL PRODUCTION OF NEW BIO-BASED PRODUCTS

The chemical sector today faces several challenges that are driving demand for higher performance and safer biomass-derived chemicals. The transition from fossil fuels demands the use of renewable sources to meet future energy and chemical needs. Net zero drivers combined with increasing regulatory pressure mean that companies using fossil-based hazardous chemicals require sustainable alternatives.

ReSolute offers the global opportunity to build, at industrial scale, factories to convert cellulosic biomass into safer and environmentally friendly chemicals with applications across diverse industrial sectors as a key part of the circular economy.

## OBJECTIVES

- To build and operate in France the first-of-its-kind integrated biorefinery producing Cyrene™, a high-performance solvent
- To bring to market new products with better environmental performance that are safer for human health
- To reduce dependence on non-renewable resources
- To apply a circular approach to Cyrene™ by-products

## Contribution to sustainable development goals



## EXPECTED IMPACTS

## **ECONOMICAL**



• Create new bio-based value chains

#### • Create a new source of growth for the pulp and paper sector and the chemicals sector

• Create new bio-based applications that meet market requirements

### ENVIRONMENTAL

• Reduce dependence of solvent-using industries on non-renewable resources

Optimise resources efficiency
Increase the protection of the environment

## SOCIAL



Increase the protection of human health
Create 40+ direct jobs and 120+ indirect jobs
Equal employment opportunity for the local community

A multi-stakeholders project contributing to the European Green Deal and the EU Chemicals Strategy for Sustainability

# APPLICATION





EL.

Polymers and biopolymers

Flavours and fragrance

**Pharmaceuticals** 



Graphene

Agrochemicals



Coatings and adhesives

Textiles recycling

Membrane manufacturing