

Raw materials for a sustainable circular economy: Launch of the NewWave project

PRESS RELEASE

What if we had sustainable raw materials, able to replace toxic chemicals and reduce the environmental footprint of many manufacturing processes?

April 2022 marked the beginning of the NewWave project, one of the first Research and Innovation Actions funded by the new EU program Horizon Europe which addresses exactly the above-mentioned points.

NewWave seeks to use biomass residues, end-of-life woody products, and biowaste as raw materials in 4 fully sustainable Manufacturing lines.

The 4 manufacturing lines will produce **engineered wood panels, furan based-chemicals, polyols and polyurethanes, and modified/engineered wood**. The products obtained will be used to enhance the sustainability of building materials in the construction industry.

NewWave aims at wood-based materials including Cross Laminated Timber (CLT) to replace steel and concrete as structural components, modified/engineered wood to replace tropical hardwood or chemically treated wood for outdoor use, and Medium Density Fibreboard (MDF) and plywood for interior usage. Toxic chemicals like formaldehyde and creosote will be replaced by non-toxic, bio-based alternatives.

The selected product lines fully exploit the unique chemical functionalities already present in the biomass feeds. Moreover, the lines are interlinked, and output from one line will further improve the sustainability of the other.



Wastewater treatment and water re-use is an integral part of the NewWave concept. Combined with end-of-life recycling options and efficient use of by-products this result in essentially waste-free manufacturing processes.

It is vital for Europe to develop such fully sustainable and zero-waste value chains, they will help reach the ambitious goal set out by the European Green deal and make the continent more self-reliant.

The NewWave project is coordinated by the Biomass Technology Group. Other partners are: AEP Polymers, Avecom, FORECO, FORESA, Blue Synergy, Innorenew, TFC – Biomass base chemicals, Rijksuniversiteit Gronigen, AVA Biochem and ETA Florence Renewable Energies.



NewWave has received the funding of the Horizon Europe Program under grant agreement No. 101058369