

Press release

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New BBI JU and EU Horizon 2020-Project PERFECOAT – High Performance Bio-based Functional Coatings for Wood and Decorative Applications

Project aims to develop and validate wood and decorative coatings with more than 25 % bio-based components

Achieving a climate-neutral Europe by 2050 requires the replacement of fossil-based material with bio-based material on a broad basis. Today, almost 1 million tonnes of paints and coatings are produced in Europe each year, with more than 80 % still being from fossil resources. Even those coatings that do rely on bio-based compounds often have CO₂ footprints little different from the existing coatings. Reducing the impact of these coatings would represent a major advance in Europe's climate ambitions. To address this challenge the PERFECOAT project will develop and validate a new generation of industrial wood and decorative coatings with significantly more than 25 % bio-based components that meet and even surpass the current quality and sustainability standards.

Three major coating markets will be addressed: high-volume ultraviolet (UV)-curable clearcoats, do-it-yourself (DIY) waterborne trim paints, and DIY waterborne wall paints.

The overarching objective of the PERFECOAT project is to develop novel sustainable coatings that will ultimately be available to the public, through their application on high-volume production home and office furniture and as DIY paints. Within this, the project will pursue the following specific objectives:

- From an *environmental perspective*, the PERFECOAT project will contribute to reducing Europe's greenhouse gas emissions by developing a new generation of industrial bio-based coatings for wood with more than 25 % of bio-based components produced from climate neutral sources and processes. This will be in addition to its contribution to replacing fossil-based material with bio-based, renewable material.
- From an *economic perspective*, the project will help prepare the market for new coating formulations that will be at least equal to existing fossil-based products.
- From a *social perspective*, the project will demonstrate the potential for creating new job opportunities in the bio-based sector in rural and coastal areas, where urban migration remains a challenge. In addition, the project will enhance European leadership in the biotechnology sector and strengthen the EU's leadership in adopting renewables.

PERFECOAT is aimed at having relevant impacts at different levels. The project aims at creating a new cross-sectoral connection in the bioeconomy, linking the industrial biotechnology sector and the wood and decorative coatings sector. It pursues to establish a new value chain platform, integrating several value chains that deliver more-sustainable ingredients for bio-based coatings. This will bring together several economic sectors and bio-based

economy actors – the biomass refinery sector, the chemical industry sector, the coating industry sector, the research and consultancy sector, and innovative biotechnology and nanotechnology companies.

Demonstrating new consumer products based on bio-based chemicals is another target. These will be in the form of binder and additive materials as well as innovative bio-based coatings – at pilot scale – for three different applications in large consumer markets. Furthermore, validating new and improved processing technology reflecting a ‘technology readiness level’ gain in a range of products, from level 2 to level 4 at the start of the project, to level 4 to level 5 at its end.

When successful, the PERFECOAT project will be able to offer bio-based coating ingredients from climate neutral sources and processes. This will help encourage the uptake of sustainable coatings, with a positive impact for the environment and helping mitigate climate change.

PERFECOAT is implemented by a multidisciplinary consortium of experts from four universities and research institutes and eight commercial project partners, including four SMEs, in seven member countries.

www.bbi.europa.eu/projects/perfeccoat

Find out more soon at www.perfeccoat-project.eu

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