

PRESS RELEASE

Polymers-5B[®]: The European Project to Transform Agri-Food Waste into Bioplastics How the European Furniture Industry Will Become Greener

New sustainable polymers generated from tomato, olive and wood waste. The Italian company Bonlex Europe has been tasked with verifying the potential applications of the new polymers in the furnishing and design sector. NSB Project Srl (NSB), the second Italian partner, acts as an Innovation Broker.

Italy - July 2024 - Developing innovative materials that replace plastic by virtuously utilizing agri-food waste: this is the goal of the European project Polymers-5B, inaugurated in Lisbon by a consortium of 12 European partners led by the Instituto Superior Técnico para a Investigação e o Desenvolvimento (IST-ID). The two Italian partners, NSB and Bonlex Europe, announced this in Italy. NSB takes on the role of Innovation Broker for the consortium and will coordinate the entire dissemination and capitalization process of the research results, promoting technology transfer. Bonlex Europe, a Treviso-based company controlled by the Japanese group C.I. Takiron Corporation, specializes in the production of decorative films for the furniture and design industry. Bonlex Europe will contribute to the project through material characterization and experimentation in furniture and interior design components.

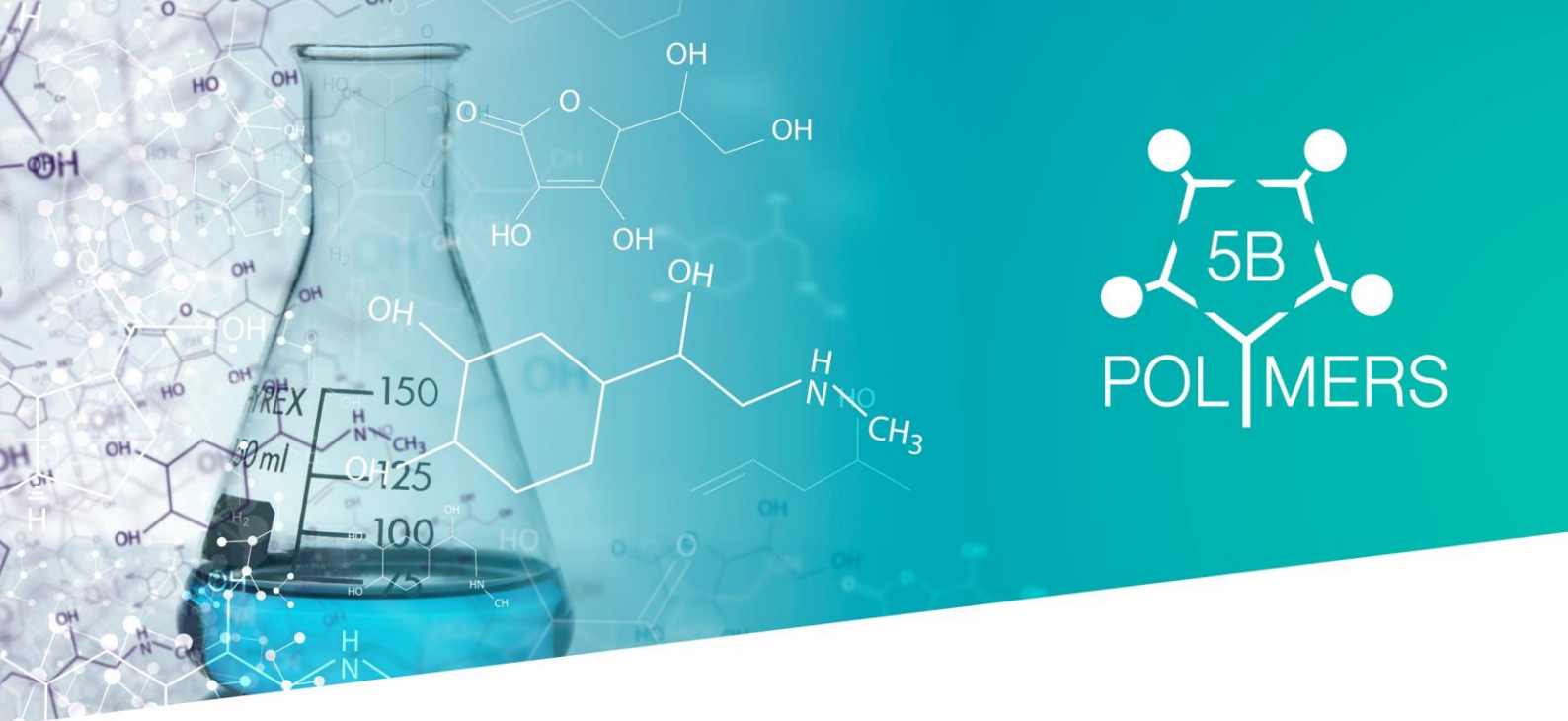
Polymers-5B is a European project funded by the Circular Bio-based Europe Joint Undertaking (CBE JU), a public-private partnership between the European Commission and the Bio-based Industries Consortium (BIC). With a funding of €5.6 million, the Polymers-5b consortium aims to create innovative materials through biocatalysis and green chemistry that mimic traditional plastics but with a significantly reduced environmental impact. The research will focus on selecting bio-renewable monomers from tomato waste, olive oil, and wood pulp. The project not only aims to develop new materials but also to implement sustainable extraction processes, using advanced technologies such as artificial intelligence. Furthermore, it aims to create circular supply chains and, ultimately, to guarantee the environmental sustainability of the products and final applications by assessing their life cycle.

www.polymers-5b.eu



Funded by
the European Union

The project 101157840 — Polymers-5B — HORIZON-JU-CBE-2023 is funded by the European Union and supported by the Circular Bio-based Europe Joint Undertaking and its members.



"The Polymers-5B research will investigate the potential applications of biocatalysis for the polymerization of monomers, an innovative and sustainable approach for the production of polymers, which, exploiting the precision and efficiency of enzymes, realizes greener and less costly synthesis processes. This is a technology currently used mainly in experimental contexts and pilot projects, but which has not yet been adopted on a large scale in industry," explains Riccardo Varotto, project manager at NSB. "The ambition of the project, and in particular, our role as Innovation Broker, will be precisely to bring this technology out of the laboratories. The goal is to test it in order to create new high-performing polymers for specific applications and for prototypes destined for the textile, automotive, and, thanks to Bonlex Europe, for resins and films for furnishings."

"Our participation in projects like Polymers-5B reflects the group's approach inspired by the Japanese motto KAIZEN, which means continuous improvement for employees, customers, and the entire community," explains Stefano Monti, quality and research and development manager at Bonlex Europe. "Current technologies on the market, in the design sector, mainly use conventional polymers from fossil sources or from mechanical recycling. Polymers-5b could have a significant impact on the furniture sector and open up new market opportunities for bio-based products: furniture is an integral part of the daily life of every individual, think of the home, the office, public places, and an innovative product of this magnitude would lead to an acceleration in the sustainability of the entire supply chain and more generally of all living spaces."

Press Contacts

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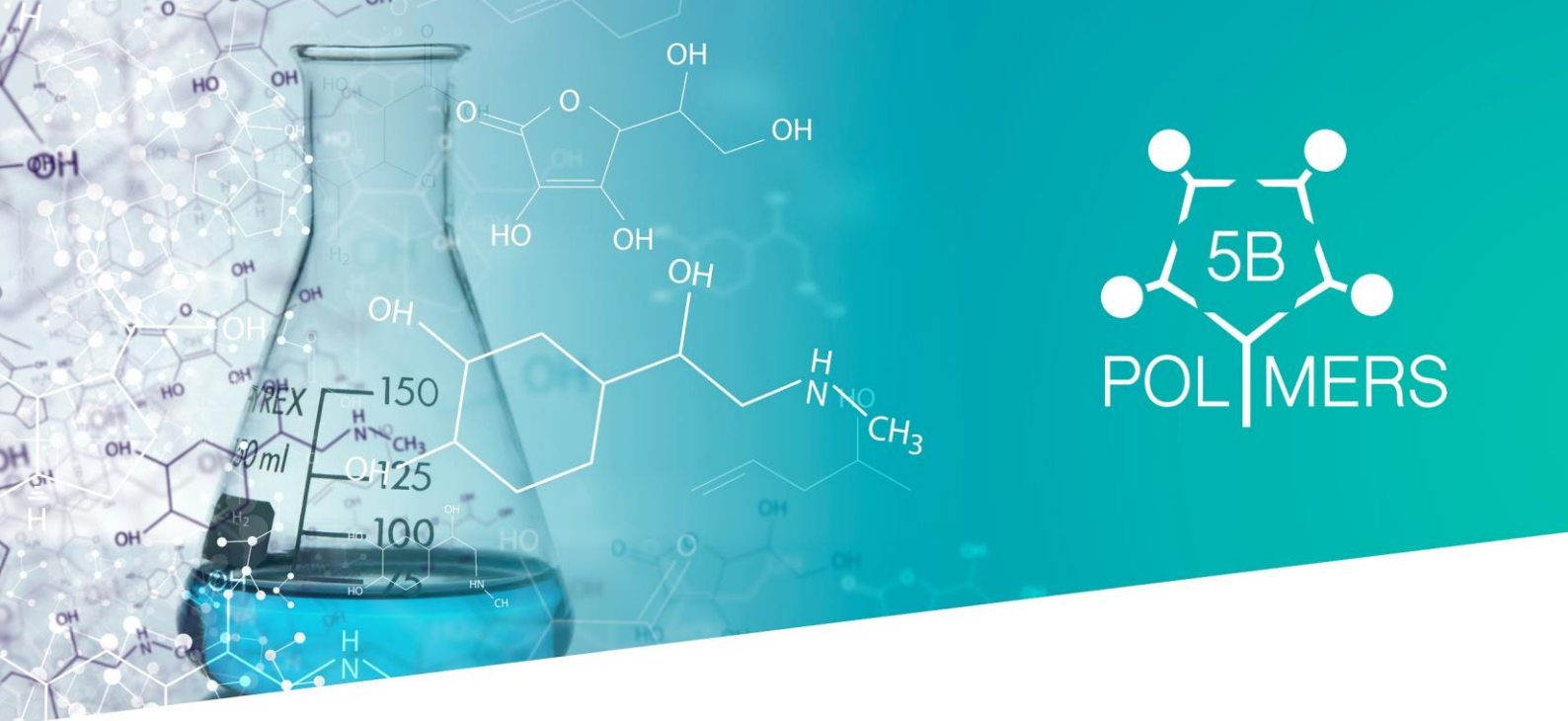
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About Polymers-5B

Polymers-5B is a four-year research and innovation project funded by the European Union and supported by the Circular Bio-based Europe Joint Undertaking (CBE JU) and its members.

Project acronym Polymers-5B

Project full title Synthesis of bio-based and biodegradable polymers from monomers from renewable biowastes via biocatalysis and green chemistry to contribute to European circular bioeconomy

Project focus Bio-based polymers & plastics

Start date 01.06.2024

End date 31.05.2028

Project coordinator IST-ID ASSOCIAÇÃO DO INSTITUTO SUPERIOR TÉCNICO PARA A INVESTIGAÇÃO E O DESENVOLVIMENTO (Lisbon, Portugal)

Consortium

- LATVIAN STATE INSTITUTE OF WOOD CHEMISTRY (Riga, Latvia)
- IDENER RESEARCH & DEVELOPMENT AGRUPACION DE INTERES ECONOMICO (Sevilla, Spain)
- CHIRALVISION BV (Den Hoorn, The Netherlands)
- CENTIMFE CENTRO TECNOLÓGICO DA INDÚSTRIA DE MOLDES, E FERRAMENTAS ESPECIAIS E PLÁSTICOS (Marinha Grande, Portugal)
- MAX-PLANCK-GESELLSCHAFT ZUR FÖRDERUNG DER WISSENSCHAFTEN EV (Munich, Germany)
- TEHNOLOSKI FAKULTET NOVI SAD (Novi Sad, Serbia)
- ISQ&CTAG AUTOMOTIVE TECHNOLOGIES, LDA (Monção, Portugal)
- FUNDACIO EURECAT (Barcelona, Spain)
- IBER-OLEFF - COMPONENTES TÉCNICOS EM PLÁSTICO SA (Pombal, Portugal)
- Bonlex Europe Srl (Treviso, Italy)
- NSB Project Srl (Venice, Italy)

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