Press release
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SSUCHY-Next turns one: a year of innovation towards real-life bio-based composites

From European hemp fields to industrial demonstrators in wind energy and construction

After a year of collaboration and innovation, SSUCHY-Next is turning bio-based composites into industrial reality. Launched one year ago, the 16-partner European project funded by CBE JU joined forces with a shared ambition: to make bio-based composite materials a reality in wind energy and building applications.

"We see that hemp fibre properties match those of flax fibre when produced at scale, and we also see clear paths forward to scale up our bio-based benzoxazine and acrylate resin systems."

Prof. Aart W. van Vuure
Sustainable Composite Materials, Campus Group T, Faculty of Engineering Technology, KU Leuven - Project Coordinator, SSUCHY-Next

From field to fibre: building a new European value chain

Thanks to the collaboration between Terre de Lin, Ecotechnilin and Linificio e Canapificio Nazionale, more than 4 tons of high-quality hemp slivers, and several tens of kilograms of yarns, tapes and fabrics, have been produced and are now being tested across Europe

These fibres are the beating heart of SSUCHY-Next's innovations, travelling from the spinning mills of Italy to research labs across Europe, where they are turned into next-generation bio-based composites.

Turning ideas into materials: from lab innovation to scalable solutions

Behind the scenes, research teams and industrial partners have been developing new resins, testing composite performance, and designing real demonstrators.

At Bitrez Ltd, a patented water-based benzoxazine resin has been created, a major step toward safer, more sustainable chemistry.

Meanwhile, Arkema continues the race toward a minimum 90% bio-based version of Elium®, exploring new routes for bio-based methyl methacrylate (MMA).

Circular Bio-based Europe Joint Undertaking
Bio-based Industries Consortium
Co-funded by the European Union

At KU Leuven, Delft University of Technology, and Université Marie et Louis Pasteur, mechanical tests show that Ecotechnilin's HempTape performs as well as traditional flax-based tapes. Combined with bio-based resins, these tapes should soon form the basis for a 13-meter hemp composite wind turbine blade, one of the project's flagship demonstrators.

Building a sustainable future

In parallel, partners such as NPSP and Woodoo are developing hemp-filled and hybrid wood-hemp materials for the building sector, combining bio-based innovation with architectural performance Early Life Cycle Assessment (LCA) results already show strong potential: hemp cultivation and bio-based resins could drastically reduce carbon footprints compared to conventional composites.

From field to fibre: building a new European value chain

To mark this first anniversary, the consortium gathered on October 1 & 2, 2025, in Bergamo, Italy, hosted by Linificio e Canapificio Nazionale.
The meeting took place in the historic Palazzo dei Contratti e Manifestazioni, followed by a visit to Linificio's spinning mill in Villa d'Almè, a symbolic journey to the roots of European fibre craftsmanship.
Over two days, partners shared progress, discussed research challenges, and defined the next milestones toward the first demonstrators, planned for 2026–2027.
The discussions also addressed intellectual property and preparation of patent applications, alongside preparations for an international stakeholder workshop set for early 2027.

"We are honored to host the SSUCHY-Next consortium in Bergamo, the heart of our textile tradition. This meeting represents not only a crucial moment to share scientific progress, but also an opportunity to weave our centuries-old expertise in fiber processing with the innovative drive that animates the project. We share our knowledge in the transformation of hemp and flax so that these fibers can become key elements of the bio-based composite materials of the future, capable of combining industrial performance with sustainability.
We believe that open dialogue and collaboration among stakeholders across Europe will be decisive in building new value chains and boosting a more circular and competitive sector."
Cinzia Xodo, Communication Manager, Linificio e Canapificio Nazionale SB Certified B Corporation®

Looking ahead

The meeting not only celebrated one year of progress but also set the stage for the project's next phase, turning research into real demonstrators.

- producing the first large-scale bio-based demonstrators,
- validating their mechanical and environmental performance,
- and strengthening industrial collaboration to accelerate market uptake.

The consortium will meet again in March 2026 in Tarbes, France, with a technical visit to Arkema.

About SSUCHY-NEXT

Duration: 4 years (2024-2028)
Budget: €8.7 million
CBE JU Funding: €6.7 million
16 partners from 6 European countries

SSUCHY-Next is a four-year European project (2024-2028) funded by the Circular Bio-based Europe Joint Undertaking (CBE JU) under the Horizon Europe programme.

Building on the success of its predecessor SSUCHY, the project takes a major step forward in demonstrating the industrial-scale potential of bio-based composites derived from European hemp fibres and innovative bio-based resins.
Its ambition: to move from the hemp field to fully bio-based composites for real-life applications in the wind energy and building sectors, proving that bio-based materials can meet industrial performance standards while reducing environmental impact.

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