nova-Institut GmbH
Leyboldstraße 16
50354 Hürth, Germany

Tel: +49 2233 460 14 00
Fax +49 2233 460 14 01
contact@nova-institut.de

nova-Institut GmbH (www.nova-institute.eu)

PRESS RELEASE

Cellulose Fibre Innovation of the Year 2025: Six Innovations are Nominated

The use of leaves for cellulose pulp and packaging, seaweed as a feedstock for biosynthetic fibres, plant-based surface material for car interiors and much more – The award nominees are as diverse as the thematic spectrum of the Cellulose Fibres Conference 2025 in Cologne

Hürth, 13 January 2024: It is getting exciting again in Cologne on 12 and 13 March for the cellulose fibres industry. Six new products have been nominated for the popular innovation award. The jury has selected six outstanding nominees that want to shape the future more sustainable with their pioneering products.

Every year, the conference organisator nova-Institute together with award sponsor GIG Karasek honours companies that impress with their creativity, technological progress and ecological impact. The aim of the award is not only to recognise the winners' innovative products, but also to set an example for the courage to innovate.

The nominees' presentations, the voting and the winner ceremony will take place on 12 March at the Cellulose Fibres Conference 2025. Participants of the conference can vote live for the three winners. More than 220 people are expected to attend.

The Nominees

Fibers365 (DE): Hemp365 – Agricultural Decorative and Carrier Material

The solution "hemp365" is characterised by the development of a cost-effective, plant-based decorative and carrier material through the chemical-free processing of a regional agricultural fibre and the use of resulting short fibres in a wet-laid process, allowing for a massive reduction in the amount of fossil based binders required for strength and functionality. The non fibre content is less than 7 % and is also made from biogenic and biodegradable material. Hemp365 is 100 % natural and vegan. It has been designed for consumer (fashion) and industrial applications in cooperation with an automotive OEM. fibers365.com

Releaf Paper France (FR): Releaf Fiber – Eco-Friendly Paper from Urban Fallen Leaves

Releaf Paper France transforms urban fallen leaves into sustainable cellulose fibres, offering an eco-friendly alternative to traditional hardwood pulp. Using proprietary low-temperature extraction, high-

quality fibres with excellent paper-forming properties are isolated. With a cellulose content of 32-48 % and properties similar to hardwood, RELEAF fibres are ideal for packaging materials like corrugated paper, boxes, and bags. This innovative process, which requires minimal water and non-aggressive solvents, aligns with circular economy principles, repurposing millions of tons of urban leaf waste annually and supporting global brands in achieving sustainable packaging solutions. releaf-paper.com

SA-Dynamics (DE): Cellulose Aerogel Textiles – Next-Generation Insulation Materials

Cellulose Aerogel Textiles are revolutionary insulation materials made from 100 % biodegradable cellulose aerogel fibres. These combine the flexibility and ease of processing of traditional fabrics with the superior thermal insulation properties of aerogels by utilising a novel aerogel fibre process. Lightweight, highly efficient, and compatible with conventional textile machinery, they provide a sustainable alternative to fossil-based and animal-derived insulation materials. Fully recyclable and free from microplastic emissions, Cellulose Aerogel Textiles set a new benchmark for circular economy solutions in the textile and construction industries. Initial functional demonstrators were developed through two projects, funded by Biotexfuture and RWTH Innovation, respectively. sa-dynamics.com

Sci-Lume Labs (US): Bylon® – Renewable Circular Fibres from Agricultural Waste

Sci-Lume Labs makes Bylon®, a scalable, circular, biosynthetic fibre. Using highly efficient chemistries to valorise agricultural waste, Bylon® seamlessly integrates into every step of the global value chain – from raw material production through textile manufacturing. Bylon® is distinct from incumbent and next-gen materials because it is simultaneously bio-based; waste-derived; degradable; recyclable; downstream-compatible; and melt-spinnable. Bylon® also offers a unique performance profile by combining the mechanical properties and tunability of traditional synthetics with the moisture properties and circularity of natural fibres. By not requiring changes to the supply chain, Bylon® empowers the industry to reduce its environmental impact – without compromising on quality, performance, or cost. sci-lumelabs.com

TMG Automotive (PT): REFIBER – Sustainable Automotive Surface Material

Textile-based composite solutions are a growing trend in the automotive sector, especially for decorative and functional interior applications. Innovative plant-based leather demonstrates this trend, combining sustainability with advanced performance. Developed from a biopolymer matrix combined with cellulose waste, this material transforms waste into a premium, eco-friendly solution. Its textile backing and non-woven laminate backing are also made entirely from cellulose fibres, creating a fully integrated bio-based composite. Designed for car interiors and more, this lightweight, durable and aesthetically versatile material sets a new standard for sustainable design, while satisfying the industry's growing demand for circular and renewable alternatives. tmgautomotive.pt

Uluu (AU): Replacing plastic in textiles with natural, seaweed-derived materials

Uluu is an Australian start-up set to replace plastics with natural polymers called PHAs. Uluu materials are made from a regenerative feedstock: farmed seaweed, thus ending reliance on fossil fuels and land crops. Uluu, in partnership with Deakin University, is developing textiles that perform like synthetic polyester but are truly biodegradable and biocompatible, thus eliminating persistent microplastic pollution in fashion. Importantly, Uluu materials are reusable, recyclable, and most importantly, compostable. They are naturally produced through a unique fermentation process that uses seaweed, saltwater microbes and seawater. Uluu pellets can be directly substituted for plastic (e.g., polyester, nylon) in existing melt spinning equipment, creating yarns that can be knitted or woven into textiles. In addition to fibre-grade pellets, Uluu is also producing other grades of pellets to replace plastics used in e.g., buttons, sunglasses, hair clips and packaging. uluu.com.au

Call for Posters

The poster exhibition is a highly anticipated scientific event at the conference, especially for early career scientists. Poster submission is open until 31 January 2025. cellulose-fibres.eu/call-for-posters/

Program

The program and all information on registration, sponsoring and exhibition is available on cellulose-fibres.eu

Find all nova press releases, images and more free-for-press material at www.nova-institute.eu/press

Responsible for the content under German press law (V. i. S. d. P.):

Dipl.-Phys. Michael Carus (Geschäftsführer)
nova-Institut für politische und ökologische Innovation GmbH

Leyboldstraße 16 Tel: +49 2233 460 14 00
50354 Hürth Fax +49 2233 460 14 01
Germany contact@nova-institut.de

nova-Institut GmbH has been working in the field of sustainability since the mid-1990s and focuses today primarily on the topic of renewable carbon cycles (recycling, bioeconomy and CO_2 utilisation/ CCU).

As an independent research institute, **nova** supports in particular customers in chemical, plastics and materials industries with the transformation from fossil to renewable carbon from biomass, direct CO_2 utilisation and recycling.

Both in the accompanying research of international innovation projects and in individual, scientifically based management consulting, a multidisciplinary team of scientists at **nova** deals with the entire range of topics from renewable raw materials, technologies and markets, economics, political framework conditions, life cycle assessments and sustainability to communication, target groups and strategy development.

50 experts from various disciplines are working together on the defossilisation of the industry and for a climate neutral future. More information at: nova-institute.eu – renewable-carbon.eu

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