RAIZ

Forest and Paper Research Institute

TECHNOLOGICAL SCOUTING NEWSLETTER

February 2021

Highlights

- This February TS Newsletter shows P&P companies investments in start-ups, particularly on the cellulose based textile fibers area.
- The packaging segment is as well addressed, from stretchable paper laminates to paper bottles.

Contents

Services Provided by RAIZ Technological Scouting:

Technological Scouting Newsletter (monthly)
Technological Scouting On Demand (specific technological issues, upon request)
Industrial Property (IP) Survey (quarterly)

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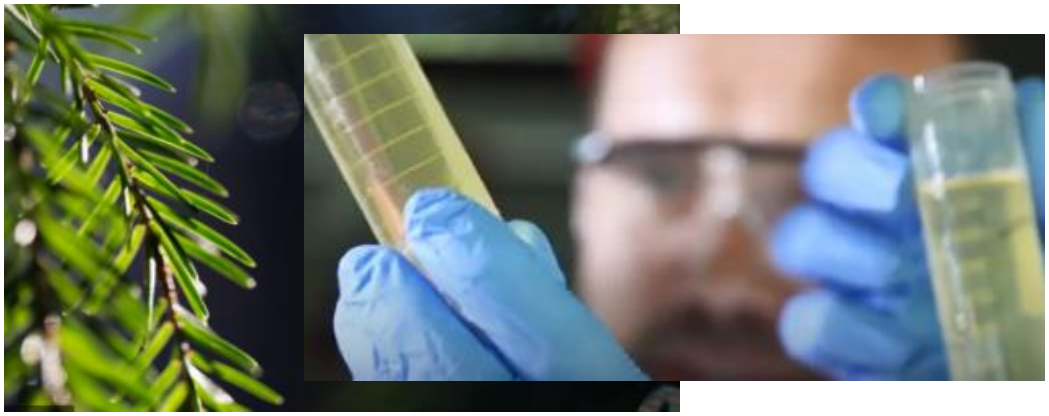
START-UP OF THE MONTH

montinutra

Montinutra is a Finish start-up dedicated to the development of processes for producing health-promoting products out of the by-products of the forest industry. Montinutra's high-added value products can be applied in the cosmetics, food and beverage and pharmaceutical industries. One of its market product is Sprucegum™, a galactoglucomannan rich pressurized hot water extract from spruce sawdust.

Read more ➢ Montinutra



BIOREFINERY

Cision

Metsä Spring: investing in the wood extract start-up Montinutra

Metsä Spring Ltd, Metsä Group's innovation company, has participated in a financial round of a total of EUR 1 million in the startup Montinutra Ltd, resulting in an equity investment. Montinutra produces high value bioactive products from forest industry side streams, with applications in the cosmetics, food and beverage, and pharmaceutical industries. One of Montinutra raw material is spruce sawdust, with Metsä Group having two spruce sawmills in Finland, which may then provide sawdust for the startup production processes. Metsä additionally intents to support Montinutra's efforts on the commercialization of its produced extracts and related new products. During 2021, Montinutra plans to built a pilot-scale production facility.

Read more ➢ Cision

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Cision

Suzano and Spinnova: commercial scale factory in 2022

Spinnova is an already quite known startup from Finland which has developed a patented technology for turning wood fibers directly into yarn, without the use of harmful chemicals and energy and water demanding steps. In 2017 Fibria invested on a 18% minority interest in Spinnova. Now, with Suzano, the start-up will make an estimated 22 million euro investment to build the first commercial scale SPINNOVA® production facility in Finland, near Spinnova's R&D hub and pilot facility. Production will be managed and operated by the new joint venture company constituted, 50/50, by Spinnova and Suzano. In the joint venture, Spinnova will be the exclusive technology provider, while Suzano will supply eucalyptus micro-fibrillated cellulose. The fibre produced will be sold under the SPINNOVA® trademark.

Read more ➢ Spinnova

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BIOREFINERY

Stora Enso: TreeToTextile's demonstration plant for textile fibers

As reported at the TS Newsletter of December 2018, Stora Enso joined the partnership TreeToTextile AB, between H&M group, Inter IKEA group and innovator Lars Stigsson, aiming the development of new textile fibers in a sustainable way and at attractive cost levels. Stora Enso planned to support the industrialization of the TreeToTextile's production process by setting up a demonstration plant at one of its Nordic facilities. That intent is now closer to being a reality, with Stora Enso hosting TreeToTextile's demonstration plant, at Stora Enso's Nymölla Mill in southern Sweden. The construction will start in spring 2021, involving an investment of EUR 35 million. The raw material used at the demo plant will primarily be dissolving pulp from Stora Enso's Enocell Mill.

Read more ➢ PulpandPaperNews

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Metsä

Metsä: new bioproduct mill in Kemi, Finland

Metsä Fibre, from Metsä Group, will build a new bioproduct mill in Kemi, Finland, investing a total of EUR 1.6 billion, the largest investment ever made by the the forest industry in Finland. The mill is expected to be concluded during the third quarter of 2023. The Kemi bioproduct mill will produce around 1.5 million tonnes of softwood and hardwood pulp per year, as well as many other bioproducts. The new mill will replace the current pulp mill in Kemi, which has reached the end of its lifespan.

Read more ➢ Metsä

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BIOREFINERY

SWEETWOODS

SWEETWOODS: first tons of high purity lignin and wood sugars

SWEETWOODS is a wood valorization flagship project funded by the Bio-Based Industries Joint Undertaking (BBI JU). One of the goals of the SWEETWOODS project is to establish markets for lignin and sugar-based chemicals, having developed a novel fractionation demo plant using sustainable hardwood biomass to demonstrate, on an industrial scale, how novel pre-treatment technology in combination with innovative enzymatic solutions can provide high-quality lignin and wood sugars. Now, the project partners have announced reaching its first milestones, by producing industrially representative samples of high purity lignin and wood sugars available at the ton scale for further testing at novel value chains.

Read more ➢ SWEETWOODS

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PACKAGING

FreeForm Packaging AB

FreeForm Packaging AB: new stretchable paper laminate

FreeForm Packaging AB, a Swedish company owned by CURTI and BillerudKorsnäs, has launched a new stretchable paper laminate based on 85 % of paper, branded as Standard Paper Out. It has two layers of BillerudKorsnäs's FibreForm® paper and one of its two sides contains a thin layer of polyethylene. Until now, FreeForm Packaging AB has only been able to produce laminates with polyethylene on both sides. The new product has good water vapor transmission rates (WVTR) values, although less effective than the double-sided alternative.

Read more ➢ FreeForm Packaging AB

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PACKAGING

Coca-Cola

COCA-COLA and Paboco: paper bottle prototype trial in Hungary

Previous TS Newsletters have already shown several paper bottles prototypes developed by the joint venture Paboco and several beverages producers, such as the Absolut Company (TAC). Coca-Cola has also previously shown its first paper bottle prototype, in October 2020. This month, Coca-Cola has announced moving into the critical consumer testing phase, in order to measure how its developed paper bottle performs as well as how consumers respond to the new format. The trial of the paper bottle prototype is scheduled to take place in Hungary in the second quarter of 2021. 2,000 bottles of 250ml AdeZ will be offered to consumers by one of Hungary's fastest growing online grocery retailers, kifli.hu.

Read more ➢ Coca-Cola

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Smurfit Kappa

Smurfit Kappa: innovative punnet portfolio for fresh produce market

Smurfit Kappa is launching an innovative punnet portfolio in Europe, the "Safe&Green" portfolio which is a paper-based, sustainable alternative to plastic packaging for fresh produce, consisting of unique designs that are 100% renewable, recyclable, and biodegradable. The product range comes as a response to the consumers' preferences for punnets able to balance visibility of its contents with sustainability.

The developed punnets include the ones for fruits, berries and vegetables.

Read more ➢ Smurfit Kappa

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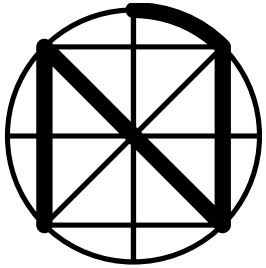

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