

RAIZ



Forest and Paper Research Institute

TECHNOLOGICAL
SCOUTING NEWSLETTER

June 2021

Highlights

- The packaging segment continues to be addressed by different companies with solutions for paper bottles, dispersion barriers, stretchable papers, kraftliners and e-commerce packaging.
- Biorefinery solutions are presented by Klabin and Metsä with microfibrillated as an irrigation additive and new fibre-based bioproducts such as textile fibers and biocomposites.



Contents

- _ Unilever: world-first paper-based laundry detergent bottle
- _ Nestlé: new hybrid bottle for Vittel® natural mineral water
- _ BillerudKorsnäs: new fibre-based packaging opportunities
- _ Stora Enso: starts new dispersion barrier line
- _ FPInnovations: stretchable paper
- _ BillerudKorsnäs: new 3-ply coated white top kraftliner
- _ Mondi: new e-commerce packaging
- _ Metsä Fibre: new fibre-based bioproducts project
- _ Klabin: new application for microfibrillated cellulose
- _ Open Source Software contributions and advances

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



This USA based start-up has developed the EarthCoating®, a mineral-enriched resin alternative to 100% plastic coatings for paper-based barrier packaging applications. It can be used to produce a variety of paper-based packaging such as paper cups, labels, folding cartons and food trays. The produced packaging can be pulped into recycled paper and presents 51 % less plastic. The resin based coating provides water and grease resistance, superior heat seal closure and a high quality print surface.

Read more > [SmartPlanet](#) | [EarthCoating](#)



PACKAGING



Unilever

Unilever: world-first paper-based laundry detergent bottle

Pulpex, a new sustainable packaging technology company, has developed a patented, “first of its kind” pulp packaging solution and process involving moldable pulp. Unilever is now using Pulpex’s technology for developing a prototype bottle for the laundry brand OMO (also known as Persil, Skip and Breeze) and is set to debut in Brazil by early 2022, with an ambition for entering Europe and other markets soon after. The bottle is sprayed inside with a proprietary coating for repelling water and sustain products containing surfactants, fragrances and other active ingredients, like laundry detergents, shampoos and conditioners. In fact, the same solution is being envisioned for hair care products.

Read more ➤ [Unilever](#)

● Technological
● Product Development



Nestlé

Nestlé: new hybrid bottle for Vittel[®] natural mineral water

Nestlé's internal R&D 'Shark-Tank' initiative has developed an hybrid bottle for Vittel[®] natural mineral water made from two types of material: an ultra-thin plastic bottle made from recycled content surrounded by a fibre-based material made from 100% recycled cardboard and old newspapers.

The plastic and fibre-based layers are locked together to create a functional, sturdy water bottle that can be used without any damage.

Read more ➤ [Nestlé](#)

● Technological
● Product Development

PACKAGING



BillerudKorsnäs

BillerudKorsnäs: new fibre-based packaging opportunities

BillerudKorsnäs has developed SWAPP®, a range of fibre-based packaging materials for simplifying the transition from plastic to paper. Two products are already shown: the SWAPP® Bag for pasta or other dry food products and the SWAPP Flow Wrap for confectionery and bakery products. Further SWAPP® based solutions can be tailored in cooperation with BillerudKorsnäs for specific costumers' demands.

Read more > [BillerudKorsnäs](#)

● Technological
● Product Development



Stora Enso

Stora Enso: starts new dispersion barrier line

Stora Enso has invested EUR 10 million in a dispersion barrier technology for the development and production of paperboard with barrier properties, in its Forshaga site in Sweden. The installation is now completed and production has started. Expected applications include packaging needing protection against liquids, moisture, oxygen or fat, such as liquid packaging, beverage cups and food packaging.

From the shared information, the dispersion barrier technology is expected to be Stora Enso's Aqua™ and Aqua+™.

Read more > [Stora Enso](#)

● Technological
● Product Development

PACKAGING



FPIinnovations

FPIinnovations: stretchable paper

FPIinnovations has designed a mill-friendly approach for making paper able to stretch up to 20% in elongation, making it more competitive with plastic solutions concerning, for example, flexible packaging. The patented new solution involves wood fibers with the addition of stretchable polymers being the only requirement for obtaining the claimed stretchability. Consequently, its production may not require significant capital investments and modifications on existing mills. FPIinnovations is now working with biopolymers, so that the finished product is biodegradable.

Read more > [FPIinnovations](#)

● Technological
● Product Development



BillerudKorsnäs

BillerudKorsnäs: new 3-ply coated white top kraftliner

BillerudKorsnäs has launched a new generation white coated top kraftliner, the Pure DecorX[®]. It is a 3-ply construction: unbleached kraft fibers for strength; kraft fibres for bulk and stiffness; bleached kraft fibres for smoothness; light coating for printing, made of 100% primary wood fibres, making it strong, stiff and with high thickness, with outstanding printing properties and recyclable and biodegradable. Foreseen applications are as shelf-ready packaging, displays, and packaging of food & beverages and premium consumer goods.

Read more > [BillerudKorsnäs](#)

● Technological
● Product Development

PACKAGING



Mondi

Mondi: new e-commerce packaging

Mondi has expanded its paper-based MailerBAG range for replacing plastic packaging in e-commerce with a recyclable and flat bottom version solution. Functionalities include easy closing for packing, expandability for bulkier goods, less space in storage and transit and easy resealing functionality for returns.

Read more > [Mondi](#)

● Product Development

BIOREFINERY



Metsä Fibre

Metsä Fibre: new fibre-based bioproducts project

Metsä Fibre is participating in the ExpandFibre co-operation, along with Finnish energy company Fortum, which aims developing technologies and business concepts around new bioproducts, such as textile fibres and biocomposite products. The R&D collaboration will focus on upgrading pulp fibres, hemicellulose and lignin from renewable and sustainable sources of straw and wood.

Read more > [Metsä Fibre](#) | [ExpandFibre](#)

● Technological
● Product Development

BIOREFINERY



Klabin

Klabin: new application for microfibrillated cellulose

Klabin discloses a new application for microfibrillated cellulose (MFC): as a substitute for non-renewable irrigation additives, such as petroleum derivatives. The solution is expected to retain water close to the seedling, with a slower release, increasing the humidification time of these seedlings. In addition, MFC has the ability to replace 100% of traditional irrigation additives, which are widely used when weather conditions are adverse and in periods of drought, playing the same role as synthetic additives for changing water viscosity.

Read more > [Klabin](#)

● Technological
● Product Development

INDUSTRY 4.0



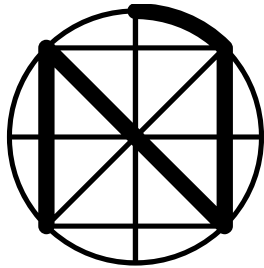
opensource.com

Open Source Software contributions and advances

The European Commission has approved the new Open Source Software Strategy 2020-2023 of the Commission, an important step towards achieving the goals of the overarching Digital Strategy of the Commission and contributing to the Digital Europe programme. Accordingly, companies are creating Open Source Program Offices (OSPO) to manage their open source ecosystems they depend on. By understanding the company's open source ecosystem, an OSPO is able to maximize the company's return on investment and reduce the risks of consuming, contributing to, and releasing open source software. Additionally, since the company depends on its open source ecosystem, ensuring its health and sustainability shall ensure the company's health, sustainable growth, and evolution.

Read more > [creating a culture of contribution](#) | [open innovation for social good: how open source principles help us create a better world](#) | [is there a business in open source?](#) | [navigating open source risk](#) | [open source software strategy](#) | [opensource.com](#)

● Technological



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