

RAIZ



Forest and Paper Research Institute

TECHNOLOGICAL
SCOUTING NEWSLETTER

February 2020

Highlights

New packaging developments and applications by Stora Enso, Nestlé and Metsä Spring and Valmet.
 UPM focused on new biochemicals production.
 Södra delivers its first biometanol batch.



Contents

- Stora Enso: new barrier boards for food packaging
- Nestlé: recyclable paper pouch for new Nesquik powder
- Metsä Spring and Valmet: new wood-based 3D product
- Mondi: new line of fully biodegradable nonwovens for wipes
- Bio-based polyvinylchloride with Ineos
- Next generation biochemicals
- Södra: first in the world with fossil-free biometanol
- Klabin: Pilot plant for lignin extraction starts

Services Provided by RAIZ Technological Scouting:

Technological Scouting Newsletter (monthly)

Technological Scouting On Demand (specific technological issues, upon request)

Industrial Property (IP) Survey (quarterly)

For further information please contact: mariana.oliveira@thenavigatorcompany.com

START-UP OF THE MONTH



ADBioplastics is a Spanish start-up, based in Valencia, dedicated to the development and commercial exploitation of tailor made bioplastics, for replacing traditional plastic products based on fossil fuels. It has a patented technology called BlockPLA for the modification of a biopolymer PLA into a PLA-Premium with improved properties such as higher barrier OTR/WVTR than PLA, thermal stability and improved mechanical properties, with tunable transparency and good processability. ADBioplastics further says that its biopolymer is also compostable, going down by 90% within six months in an industrial composting process.

Read more ➤ [ADBioplastics](#)



PACKAGING



photo: Stora Enso

Stora Enso: new barrier boards for food packaging

Stora Enso now offers two baseboards with new dispersion barriers, the Aqua™ and Aqua+™, fluorochemical-free and used to produce paperboard for cups and food service packaging without the traditional plastic layer. Aqua™ is grease resistant while Aqua+™ is both liquid and grease resistant, enabling optimal packaging performance and food protection in diverse applications.

Read more > [Stora Enso](#)

● Technological

● Product Development



photo: Nestlé

Nestlé: recyclable paper pouch for new Nesquik powder

Company Nestlé has introduced a Nesquik All Natural powder in a recyclable paper pouch. The coated paper used in the pouch manufacturing is certified by the Forest Stewardship Council (FSC) and is easily recyclable. The use of paper packaging is aligned with the company's commitment to making its packaging recyclable or reusable by 2025.

Read more > [Nestlé](#)

● Product Development

PACKAGING



photo: Cision

Metsä Spring and Valmet: new wood-based 3D product

Metsä's innovation company Metsä Spring and Valmet have initiated a joint project for the development of novel wood-based 3D products to replace fossil based ones in consumer products like packaging.

The joint project focuses on fine-tuning properties of the new environmentally-friendly material and on developing a highly automated and digitalized manufacturing technology.

In a potential next phase, a pilot plant is to be integrated into existing pulp or board production in Finland.

Read more > [Cision](#)

● Technological
● Product Development

BIOREFINERY



photo: Mondi

Mondi: new line of fully biodegradable nonwovens for wipes

Mondi has developed a new Carded Airlaid Carded (CAC) line to produce a sustainable three-layer nonwoven for wipes, used for personal hygiene and cleaning. This new line will use 100% cellulose content, including viscose and pulp from certified sources, resulting in a nonwoven material that is fully biodegradable. Additionally, the new technology allows increased softness, optimal absorption and lotion load with the use of fewer resources.

Read more > [Mondi](#)

● Technological
● Product Development

BIOREFINERY

UPM



photo:
BioMarketsInsights

Bio-based polyvinyl chloride with Ineos

UK-based chemicals Ineos will use UPM BioVerno naphtha, based on crude tall oil extracted during the pulp production process and produced in the UPM Lappeenranta Biorefinery in Finland, to produce bio-attributed polyolefins. End products will be a wide range of plastics in applications such as food packaging, medical and pipes.

Read more > [BioMarketsInsights](#)

● Technological
● Product Development



photo: UPM

Next generation biochemicals

UPM will invest 550 million € in an industrial scale biorefinery for the production of bio-monoethylene glycol, bio-monopropylene glycol, industrial sugars and lignin-based renewable functional fillers. The total annual capacity of the biorefinery will be 220,000 tonnes. The facility is scheduled to start up by the end of 2022.

Read more > [UPM](#)

● Technological
● Product Development

BIOREFINERY



photo: Södra

Södra: first in the world with fossil-free biomethanol

Södra has completed the world's first plant for commercial biomethanol from forest biomass. Södra further comments that, briefly, a first pilot delivery will go to Danish biofuels producer Emmelev A/S that will use the produced biomethanol instead of fossil-derived methanol in its biodiesel production.

Read more > [Cision](#)

● Technological
● Product Development



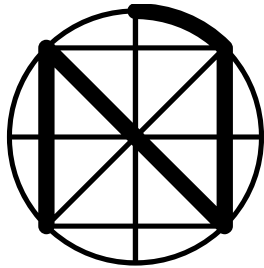
photo: TissueOnline

Klabin: Pilot plant for lignin extraction starts

Klabin has just started in its Pilot Plant Park, located in Telêmaco Borba (PR), the operation of the pilot plant for extracting lignin provided by Valmet, based on the LignoBoost technology, with the capacity to produce up to 1 ton of lignin per day. This Pilot Plants Complex is part of Klabin's investments in research and development focused on microfibrillated pulp and lignin products.

Read more > [TissueOnline](#)

● Technological
● Product Development



RAIZ – Forest and Paper Research Institute

Quinta de S. Francisco, Apartado 15, 3801-501 Eixo

Tel: +351 234 920 130, Fax: +351 234 931 359

mariana.oliveira@thenavigatorcompany.com

PART OF
**THE NAVIGATOR
COMPANY**