

RAIZ



Forest and Paper Research Institute

TECHNOLOGICAL
SCOUTING NEWSLETTER

July + August 2022

Highlights

- The packaging segment continues to appear with several new solutions for food packaging. The biorefinery area is also highlighted, with innovations for wood based batteries and alternative biopolymers.



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Services Provided by RAIZ Technological Scouting:

Technological Scouting Newsletter (monthly)

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

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

START-UP OF THE MONTH



A USA based start-up, Full Cycle, has developed a patented technology for converting organic waste into PHA (polyhydroxyalkanoate) biopolymers. The start-up says that, unlike many competing bioplastic technologies, they use a natural process to convert mixed feedstocks into consistent and fully tailorable product types. The Full Cycle process does not rely on cultivated food crops, arable land or GMO bacteria to produce PHA. Full Cycle's PHA is a low-cost, low-carbon alternative to the existing materials.

Read more > [Full Cycle](#)



PACKAGING



SCA

SCA: curved packaging for Carlsberg's new fibre bottle

SCA has developed a curved packaging solution based on a round shaped corrugated board, able to curve, for Carlsberg's New Fibre Bottle. The curved corners fit the round bottles perfectly, creating minimum space for the bottles to move around. Undesired movements during transport and handling are avoided, and the design implies a material saving of more than 20% compared to a standard corrugated solution.

Read more > [SCA](#)

● Technological

● Product Development



Tetra Pak

Tetra Pak: to test fibre-based barrier for food cartons

Tetra Pak has announced plans to test a fibre-based barrier as a replacement for the aluminium layer in food cartons distributed under ambient conditions. Tetra Pak has previously conducted a commercial technology validation for a polymer-based replacement for the aluminium layer in Japan, started in late 2020. Tetra Pak is now planning to incorporate the learnings from this previous trial while testing a new fibre-based barrier in close collaboration with some of its customers.

Read more > [Tetra Pak](#)

● Technological

● Product Development

PACKAGING



BillerudKorsnäs



BillerudKorsnäs: new coating on sack range

BillerudKorsnäs has developed a new sack paper which incorporates a coating replacing a plastic film barrier. Performance White Barrier is designed to replace most slit and perforated plastic films and works in applications including animal feed, building materials, chemical substances, dry food and mineral products. Sack strength, handling and filling rates are said to remain the same.

Read more ➤ [BillerudKorsnäs](#)

● Technological

● Product Development

BIOREFINERY



Valmet



Valmet: LignoBoost XS plant for Mercer Rosenthal in Germany

Valmet will deliver a LignoBoost plant for Mercer Rosenthal Lignin Center in Thuringia, Germany. The plant will extract kraft lignin from pulp mill black liquor. The extracted lignin will be used for developing various bio-based materials, which can replace fossil raw materials.

Read more ➤ [Valmet](#)

● Technological

● Product Development

BIOREFINERY



Cision

Stora Enso: wood-based batteries

Stora Enso is partnering with Northvolt, a European supplier of battery cells and systems, to develop sustainable batteries using lignin-based hard carbon produced from Nordic forests wood. The aim is to develop the world's first industrialized battery featuring an anode sourced entirely from forest raw materials, lowering both the carbon footprint and costs. Stora Enso will provide its lignin-based anode material Lignode, while Northvolt will carry on with the cell design, production process development and scale-up of the technology.

Read more > [Cision](#)

● Technological
● Product Development



Stora Enso

Stora Enso: bio-based alternative to petroleum-based PET

Stora Enso has developed a breakthrough technology, the Furacore® process, to produce polyethylene furanoate (PEF), a 100% bio-based alternative to petroleum-based PET. Stora Enso is starting up its FuraCore® pilot plant for furandicarboxylic acid (FDCA), the key building block for PEF, at its Langerbrugge recycled paper mill near Ghent, Belgium. Pilot production will start in 2022. The bio-based product is expected to provide barrier characteristics, and to fit in the existing recycling structure. Stora Enso expects a plastic that has the potential to be a game changer in the packaging industry.

Read more > [Stora Enso](#)

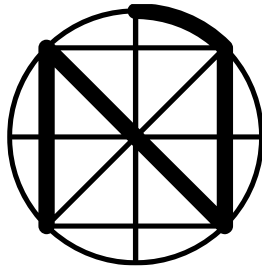
● Technological
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Quinta de S. Francisco, Apartado 15, 3801-501 Eixo

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

mariana.oliveira@thenavigatorcompany.com



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