

RAIZ



Forest and Paper Research Institute

TECHNOLOGICAL
SCOUTING NEWSLETTER

March 2020

Highlights

Biorefinery initiatives from pulp & paper and chemical companies related to biocomposites, lignin-based products and biofuels.

A new European Paper Packaging Alliance (EPPA) focused on fibre-based foodservice packaging for enhancing recycling and to reduce carbon emissions of food and foodservice packaging.



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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



Chrysalix Technologies is a London based start-up using waste wood and agricultural by-products as well as sustainably grown biomass to produce bioplastics, biofuels, biomaterials and chemicals. Chrysalix has developed the BioFlex process for separating the different chemical components of wood of lignin, cellulose, and hemicelluloses for further use into a variety of applications such as bio-chemicals, precursors for plastics or as new materials themselves. The company has recently received funding which will be applied into building a fully functional pilot plant.

Read more ➤ [Chrysalix Technologies | Imperial College](#)



FOREST

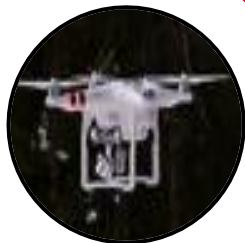


photo: timberbiz

New arborist drone

A University of Tasmania PhD student was as one of the winners of the 2020 Science and Innovation Awards for Young People in Agriculture, Fisheries and Forestry, with the development of an 'arborist' drone that can take not so easily reachable samples from the forest canopy. The student developed 3D-printed airframes for protecting the rotors and make the system robust to collisions with branches. The drones will also have a small saw integrated into the airframe for the actual cutting.

Read more > [timberbiz](#)

● Forest

PULP & PAPER SECTOR



photo:
packagingeurope

New European Paper Packaging Alliance

A group of leading manufacturers of paper and fibre-based food and foodservice packaging have launched the European Paper Packaging Alliance (EPPA), co-founded by Huhtamaki and Seda International, aiming to find real solutions to increase recycling and to reduce carbon emissions of food and foodservice packaging, while not compromising food safety and human health protection, by the use of sustainably sourced and manufactured paper and fibre-based foodservice packaging. The founders are: Seda International Packaging Group; Huhtamaki; AR Packaging; Smith Anderson; Schisler Packaging Solutions; Stora Enso; Metsä Board; Mayr-Melnhof Karton; WestRock; Iggesund/Holmen and Paper Machinery Corporation.

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● Technological

BIOREFINERY



photo: FoodDive

PepsiCo: recyclable rings made from molded pulp

PepsiCo is using recyclable molded pulp rings on its soda cans to replace the commonly used plastic ones, in the form of molded pulp rings and secondary paperboard packaging. The molded pulp rings can be composted and are biodegradable in commercial systems.

Read more ➤ [FoodDive](#)

● Product Development



Sekab and Vertoro: large-scale demo plant to produce "Goldilocks"

The Swedish chemical and clean tech company Sekab together with the Dutch oil company Vertoro will built a new demo plant where biomass, lignin or residues from the paper and pulp and forestry industry will be converted into Goldilocks, a proprietary blend of ethanol and soluble lignin oligomers. Production is expected to start in about a year with the production of biofuel to the shipping sector.

Read more ➤ [RISI](#)

● Technological
● Product Development

BIOREFINERY



UPM: truly wood based biocomposite material with up to 100 % renewable resources

UPM has developed a new biocomposite material, called UPM Formi EcoAce, containing certified wood and cellulose fibers as well as certified renewable PP polymers from SABIC's TRUCIRCLE™, which are made using wood-based feedstock from UPM Biofuels production. The biocomposite is almost 100% based on renewable resources, according to the International Sustainability and Carbon Certification (ISCC) certified mass balance principle.

SABIC is a global leader in diversified chemicals headquartered in Riyadh, Saudi Arabia.

Read more > [UPM](#)

● Technological
● Product Development



photo: BioMarketsInsight

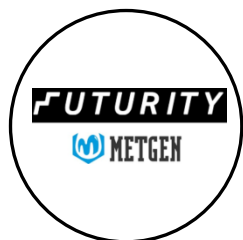
Novamont: new Mater-Bi grade for extrusion coating

Bioplastic manufacturer Novamont has launched a new grade of its bio-based plastic product Mater-Bi for extrusion coating and extrusion lamination on paper, board and other substrates. The developed product is an improvement considering the existing range of products in process stability, coating thicknesses, processing speed and adhesion to different substrates (paper, board, plastic films). This new product can be composted in standard industrial plants, answering to the rising need of disposable products that can be composted together with paper and board.

Read more > [BioMarketsInsight](#)

● Technological
● Product Development

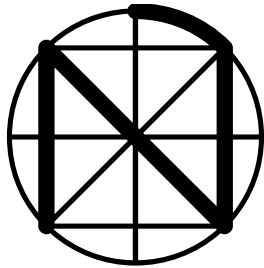
BIOREFINERY



Futurity and MetGen: lignin valorization

Futurity, a New Zealand based bio-venture using managed plantation forestry to produce renewable materials, has finalized a licensing agreement with the Finnish company MetGen Oy for the development of a full range of high value lignin-based products including resins and adhesives, foams, composites, bio-based chemicals and polymers. The license is for MetGen's METNIN™ technology platform which enables the enzymatic break down of the lignin into its fundamental component parts.

Read more ➤ [MetGen](#)



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