

CelluWiz



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The **CelluWiz** project was launched a year ago, in June 2019. The overall objective of **CelluWiz** project is to develop two processes able to produce an all-cellulose packaging material: **1.The MFC wet lamination** process and **2.The Chromatogeny grafting** process. The obtained materials should offer a competitive alternative to existing multi-layers plastic materials or multi-materials used in the packaging sector while being renewable, recyclable and biodegradable.

Main Achievements

MFC Wet lamination pilot machine

The MFC wet lamination pilot machine was successfully installed on December 2019 at the CTP. Several tests have already been done to determine the operating window of the wet end section of the pilot. Replication and drying sections will be studied in the coming weeks. More information on the MFC wet lamination are available on the [CelluWiz website](#).



Recyclability and Biodegradability of CelluWiz products

During this year a first series of material samples were produced by combining MFC wet lamination applied at lab scale and chromatogeny grafting applied at pilot scale. The Recyclability and Compostability (biodegradation, disintegration and compost quality) of this very first CelluWiz materials have been evaluated according to the standards EN13430 and EN 13432:2000 + ISO 18606:2013 by the CTP and ITENE. The samples are recyclable and the treatment (chromatogeny grafting) which brings water and water vapour barrier to the all cellulose packaging material does not alter the good recyclability of the material.

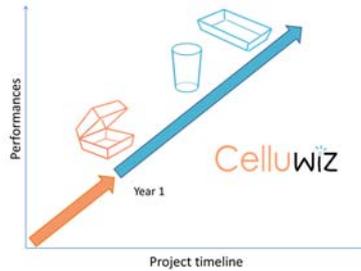


The first CelluWiz materials have also shown a biodegradability of 90% compared to the reference (microcrystalline cellulose) and the samples were fully disintegrated after 8 weeks under composting conditions. Moreover, when the obtained compost containing the disintegration products was used the plant growth was excellent and no phytotoxicity was observed.

CelluWiz materials are proven to be perfectly recyclable and compostable!

All cellulosic biodegradable and recyclable packaging

The first samples produced were also tested for their barrier performances and they already provide a sustainable solution for clamshell application! The targeted performances are successfully reached and first prototypes will be done during the next 6M.



Zoom on partners

The **CelluWiz** consortium associates 6 partners from 4 European countries. The different partners will be presented through the different newsletters.



Part of the bioeconomy, Stora Enso is a leading provider of renewable solutions in packaging, biomaterials, wooden constructions and paper. Their customers include packaging producers, brand owners, paper and board producers, publishers, retailers, print houses, converters, joinery and construction companies. Stora Enso believes that everything made from fossil-based materials today can be made from a tree tomorrow. Stora Enso develops renewable, reusable and recyclable materials, which form the building blocks for a range of innovative solutions that can help replace products based on fossil fuels and other non-renewable materials. Present in over 30 countries, the objective is to use 100% of a tree for their products as well as for producing bioenergy. Stora Enso is a founding member of the Bio-based industries consortium.



Voith Paper is a Group Division of Voith, a global technology company. With its broad portfolio of systems, products, services and digital applications, Voith sets standards in the markets of energy, oil & gas, paper, raw materials and transport & automotive. Founded in 1867, the company today has more than 19,000 employees, sales of € 4.3 billion and locations in over 60 countries worldwide and is thus one of the larger family-owned companies in Europe. As a partner and pioneer to the paper industry, Voith Paper provides technologies, products and services for the entire paper manufacturing process, all from a single source. Its continuous stream of innovations optimizes the paper manufacturing process. The focus is on developing products and technologies aimed at ensuring maximum efficiency in the consumption of energy, water and fiber in order to conserve resources.

Follow us !

The CelluWiz Consortium has been actively communicating with the public about the project progresses on LinkedIn, Twitter and on the [CelluWiz](#) project website. Several press articles were published, some presentations in congresses were done and a short video explaining the objectives of CelluWiz was released widely on social media. You have not seen it yet? [Click here!](#)

Many exciting results are still to come in the CelluWiz project, which will last until November 2022. Follow us on LinkedIn ([@CentreTechniqueDuPapier](#)) and Twitter ([@CommCTP](#)) and stay tuned for the next CelluWiz newsletter!

Feel free to contact us if you have questions.

The Celluwiz Team

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