

WasteWood2Paper: paper packaging from waste wood derived cellulose

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IMPERIAL



LIXEA

ADVANCED MATERIALS

JAMES CROPPER

Summary

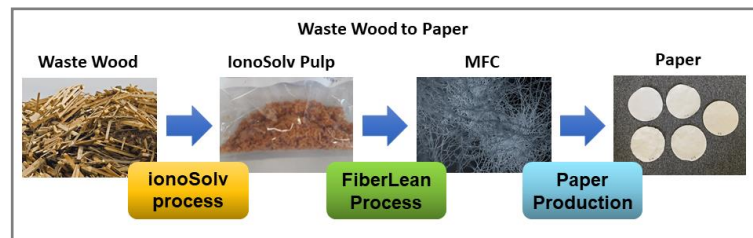
This project aims to evidence the suitability of an existing waste wood product to manufacture cellulose pulp as a component of paper packaging, reducing the reliance on imported virgin cellulose and contributing to the circular bioeconomy.

Aims

- To use patented, zero waste process developed at ICL for the conversion of construction waste wood to purified cellulose for paper packaging applications.
- Purified cellulose used to produce paper and to optimise paper properties.
- Paper sheet prototypes will be produced and commercially evaluated.

Outcomes

- Non treated waste wood from a construction site was converted into a cellulose-rich pulp using a non-polluting process.
- Pulp successfully bleached and converted to microfibrillated cellulose.
- Several species bleached successfully, and a larger batch of bleached pulp (130 gr) was produced and used for fibrillation.



"This funding enabled Lixea to develop a new application currently being commercialised and resulted in Imperial publishing a research paper on the findings."

Jason Hallett, Imperial College London