

## Lignin-first biorefinery at pilot-scale

KULeuven and MTSA Technopower finalising detailed design

Since 2013, KU Leuven has been working on an innovative biorefinery technology to turn wood biomass into a phenolic aromatic oil and a sugar pulp (<http://sels-group.eu/news>). To de-risk the technology beyond the lab scale and to facilitate application and market development with larger demonstrator samples, a trajectory towards pilot upscaling was initiated.

We are proud to communicate that, following a public procurement procedure, KU Leuven has started, in January 2021, a collaboration with MTSA Technopower for the detailed design and construction of a prototype lignin-first biorefinery pilot-scale installation. MTSA Technopower is more than 25 years active in the field of designing and realizing customer-specific equipment, installations and machines and has all key expertise in-house for the execution of the project (<https://www.mtsa.nl>).



*Preliminary 3D Layout of pilot installation*

Currently, the detailed design documents of the pilot are undergoing final revisions. Procurement has started, followed by construction and factory acceptance testing, all in 2021. The installation is planned to become operational in the first quarter of 2022 and will be hosted at TRANSfarm, a KU Leuven core facility that supports research groups to scale up their lab expertise to pilot scale in the broad area of circular bio-economy (<https://set.kuleuven.be/over-ons/groepsdiensten-en-faciliteiten/transfarm>).

These activities are part of i) the project SMARTBOX ([www.smartbox-project.eu](http://www.smartbox-project.eu)), which has received funding from the Bio-Based Industries Joint Undertaking (JU) under the European Union's Horizon 2020 research and innovation programme under grant agreement No 837890, the JU receives support from the European Union's Horizon 2020 research and innovation programme and the Bio Based Industries Consortium, ii) the project PILLAR (<https://moonshotflanders.be/mot1-pillar/>), which is part of Moonshot, an industry-driven innovation programme of the Flemish Government that supports companies in reducing their CO<sub>2</sub> emissions, supported by VLAIO, and hosted by Catalisti, spearhead cluster for chemistry and plastics, iii) the VLAIO innovation mandate project BIOCON, and iv) the project AD-LIBIO funded through the Energy Transition Fund of FOD Economie, K.M.O., Middenstand en Energie.



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