

Partner Name	Partner Type	Supervisor	Country	Project Role Description – PhD 8
Sappi	Industry	Edward Marshall	Austria	<p>Novel catalytic routes towards carbon efficient lignocellulose biorefineries</p> <p>The aim of this project is to investigate and validate ways to improve the ‘sustainability’ of a reductive catalytic fractionation (RCF) based process & value chain, using sustainability in its broadest interpretation, i.e. from a technological, environmental and economical perspective. This will require a combination of i) underutilised feedstock selection, ii) efficient conversion & downstream processing technologies, and iii) development of industry-validated competitive products. Ultimately, a maximal carbon efficiency is targeted for the production of biobased chemicals and materials applicable in tomorrow’s circular bio-economy. Both regular wood streams as well as underutilised biomass side streams at Sappi will be tested and compared as feedstocks. At KU Leuven, the compatibility of these biomass streams on the RCF process will be investigated and the resulting products will undergo advanced physicochemical analysis, exploiting the synergistic expertise and equipment of both KU Leuven and Sappi. Through a continuous feedback loop, the RCF process (e.g. feedstock and process parameters), as well as further downstream processing (e.g. product separation at KU Leuven or Sappi), will be optimised to maximise the utilisation of both lignin and the carbohydrate fractions, and more generally the overall carbon efficiency of the process chain. Sappi will lead the product application developments, focusing on established markets within their current portfolio or future interests. This approach allows focused process and product developments.</p> <p>The ESR will be hosted at KU Leuven. Throughout the project, 4 to 6 (short) research stays, depending on project progress, at Sappi Europe R&D are envisioned to perform pre-planned targeted experiments.</p>
KU Leuven	Academic *ESR Host Location	Bert Sels	Belgium	

The ESR will be employed and hosted at KU Leuven Any queries on this post please contact Talent4BBI@biorbic.com

ESR's Recruitment Timeline Process										
M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13
Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22
Recruitment Call Open and Applications Assessed					Interviews	ESR's hired, move to hosts. Fellowships commence				
Month 13 - Month 60 - Fellowship Implementation										

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