

# PhD at UGent – Woodlab

(Ghent University – Laboratory of Wood Technology)



## ***Job description***

Vacancy: **PhD in Bioscience Engineering on wood supply for the European bioeconomy**

The UGent-Woodlab, led by prof. Joris Van Acker and prof. Jan Van den Bulcke at Ghent University is looking for a qualified and motivated candidate to pursue a Ph.D. dealing with the forestry wood chain and the potential contribution of the agricultural sector for the European bioeconomy focusing on bio-based products for green building.

### *Job offer:*

- We offer a full-time PhD position for 1 year as a start. After a positive evaluation, the contract will be extended to three additional years (4 years in total).
- A thrilling position within the UGent-Woodlab research team, a dynamic group of specialists with highly complementary expertise ([www.woodlab.be](http://www.woodlab.be)). You will be part of an excellent young, dynamic and international team. You will have a challenging job by performing multidisciplinary research with access to state-of-the-art research infrastructure allowing for a high-level scientific training at a top-ranked university.
- Your contract will start March 2023 at the latest, specific date negotiable and can be adjusted in agreement with the project promoters.
- All Ghent University staff members enjoy a number of benefits, such as a wide range of training and education opportunities, 36 days of holiday leave (on an annual basis for a full-time job) supplemented by annual fixed bridge days, a bicycle allowance and eco vouchers.

### *Function:*

You will be hired by the Laboratory of Wood Technology, or short **UGent-Woodlab** ([www.woodlab.be](http://www.woodlab.be)), which is a research team of UGent, located at the Faculty of Bioscience Engineering. UGent-Woodlab aims at an integrated strategy for the forestry-wood chain to contribute to the bio-economy. Furthermore, the team tackles climate change issues by learning from different options to intensify the transition towards a circular economy using

bio-based products. UGent-Woodlab has also strong expertise in non-destructive X-ray CT scanning of wood ([www.ugct.ugent.be](http://www.ugct.ugent.be)).

Within the context of a recently approved EU projects SUSTRACK and AF4EU, we are looking for an excellent PhD candidate to work on the forestry wood chain and potential contribution of the agricultural sector for the European bioeconomy focusing on bio-based products for green building.

The ambitious goal of achieving a European economy with net-zero greenhouse gas emissions by 2050 requires the sustainable management of natural resources at a level that meets society's growing needs. A sound assessment of the environmental, social and economic impacts of the current linear, fossil-based economy, as well as the potential improvements associated with a new circular bio-based system, is needed to identify policy priorities at European, national and regional levels and trigger a sustainable and just transition in support of the European Green Deal objectives.

To assess the environmental, social and economic impacts of the sustainable transition, with regard to selected case studies, the focus will be on the most carbon-intensive sectors and products with high potential for impact and improvement mainly related to the construction sector and bio-based building products, with different geographical scopes (i.e., EU-wide or regional) and competition for biomass resources; costs associated with environmental and social impacts will be integrated into the economic assessment.

Besides the traditional forestry wood chain also the involvement of the agricultural sector will be covered. A main objective here is the promotion and innovation of European agroforestry (AF) through the development of a multi-actor interactive and innovation-driven expanded agroforestry network, based on the sharing of successful cost-effective practical experiences and existing research knowledge connected through ICT-Tools, with a special focus on the development and implementation of new business models and AF-extension services considering the whole chain providing extra opportunities for resources for bio-based building products.

- 100% of your assignment will be spent on academic research.

In this project you will:

- Study the current forestry wood chain and potential contribution of the agricultural sector for the European bioeconomy focusing on bio-based products for green building.
- Study the social, economic and environmental impact of different scenarios to use wood for the bioeconomy in general.
- Assess the current processing technology and industrial viability to implement innovative use of lignocellulosic resources for the bioeconomy.

## ***Job profile***

- You hold a Master's degree in Economics, Science, Bioscience Engineering, Engineering Science or similar.
- You have critical and creative mind, and a true problem solver to overcome technical challenges.
- You are a driven, hardworking person with a commitment to obtain a PhD.
- You work at the crossroads of multiple disciplines, from economics to wood science to engineering.
- You are collaborative and easy in networking to get things done.
- You have experience in wood science.
- You are interested in and motivated by the research topic.
- You have strong analytical skills, you are well organized, you are an excellent communicator, a team player.
- Your English is fluent, both in speaking and writing.
- You have good communication skills.
- You have an open mind and a multi-disciplinary attitude.

## ***How to apply***

Send your motivation letter (English) and CV (Dutch or English, with an indication of degrees obtained) using reference 'PhD Bioeconomy resources' before 22 January 2023 to **Joris.VanAcker@UGent.be**.

After a favorable evaluation of your CV and motivation letter, you will be invited for an interview. This will take place in February 2023 in Ghent or online.



AF4EU