

Bio Base Europe Pilot Plant vzw – PhD Candidate

PhD Candidate in Bioscience Engineering

This PhD position presents a unique opportunity to conduct **pioneering research** at Bio Base Europe Pilot Plant in the context of our strategic research lines on gas fermentation, innovative DSP technologies, and novel microbial proteins. As a PhD Candidate at BBEPP, you will be building the foundation for **next-generation industrial bioprocesses** with improved sustainability and cost-effectiveness. These processes are situated in the fields of gas fermentation, downstream separation, microbial proteins, or a combination thereof.

Through **gas fermentation**, a game-changing biotechnological process, bacteria are able to convert CO₂ in industrial off-gasses into valuable products. While avoiding carbon emissions that contribute to global warming, this approach also upgrades the carbon in these off-gasses to generate renewable ingredients, chemicals, materials, and fuels. To tackle the challenging **downstream separation** of key biobased platform chemicals, an out-of-the-box approach is needed. At BBEPP, we aim to design entirely new concepts of purification which allow sustainable bioproducts to compete with their current, petrochemical counterparts. In the light of the sustainability goals set for 2050 by the EU and Flanders, novel **microbial proteins** will be crucial to help transform our food systems towards healthy, nutritional, and economical protein sources with low environmental footprints.

You will be based at Bio Base Europe Pilot Plant, situated in the port of Ghent in Belgium. As a PhD Candidate in our lab and pilot facility, you engage in an **out-of-the-ordinary** job. By performing **high-quality research in an industrial environment**, you will be able to design break-through production technologies and help to shape the future bioeconomy. Through engaging with both academic and industrial partners across the world, you will gain first insights in key technological developments, the industry landscape, and evolving value chains and markets.

For this challenging position, we are looking for a **highly motivated and excellent PhD Candidate** with a strong background and interest in the field of industrial biotechnology. Creative thinking with a hands-on, problem-solving approach, alongside strong project management and communication skills, are key prerequisites.

Candidates should hold, or be close to completing, a Master's degree in Bioscience Engineering, Biotechnology, Chemical Engineering, or a related field, and have previous research experience in bioprocess development, analytical techniques, bibliographical review, and scientific writing. Experience in experimental design, parameter optimisation, and statistical analysis is valued.

An outstanding candidate can start anywhere between January 2026 and October 2026.

Applications must include a **curriculum vitae (CV)** with relevant education and research experience (including professional experience), a **cover letter** explaining motivation to apply and relevance of the position for the candidate, and **other relevant documentation** to illustrate your excellence such as degrees and transcripts of record.

BBEPP is committed to protecting the privacy of her external and internal candidates whose personal data are collected. Thereby, it undertakes to use and store your personal data only for the purpose of and the duration of the recruitment procedures for the current PhD position. For more details, please consult our privacy notice.

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