**The importance of open-access piloting for biological CCU technologies with real industrial C1-gasses**

Bio Base Europe Pilot Plant is an open and pilot facility for the development, scale-up, and custom manufacturing of bio-based products and processes. As an R&D pilot facility, BBEPP has a wide range of state-of-the-art lab and industrial equipment which covers the whole value chain from biomass to refined product: biomass pre-treatment, fermentation, downstream purification, bio-catalysis and explosion proof green chemistry. Next to biomass derived carbohydrates, also carbon dioxide is emerging as a sustainable and omnipresent carbon source for fermentation processes in a process called biological gas fermentation.

The hurdles encountered during optimization and scale-up of gas fermentations are even more challenging and complex than those observed in conventional bioprocesses. Besides technical issues, most companies or institutes typically don't have the necessary infrastructure, nor the skilled personnel and safety permits to run such pilot-scale tests. To obtain faster learning curves and shorter time to markets, BBEPP is continuously expanding its gas fermentation equipment and expertise and gives access and support to SMEs, large companies and research institutes.

To this end, BBEPP has realized the construction of a **mobile gas fermentation pilot installation**, specifically designed to be installed at the site of any industrial CO2 emitter. As such, BBEPP enables the validation of bio-CCU processes in a real environment and bring CCU technologies from a laboratory scale to a demonstration scale.

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**PHOTO ILLUSTRATING ABSTRACT**