

Global Bioenergies reaches 87% of yield target in Isobutene process

Evry (France), 08 October 2018 – Global Bioenergies (Euronext Growth: ALGBE) announces today that a new milestone has been met in the development of its Isobutene process. The company announces a yield exceeding 87% of the final target during the complete production phase, at laboratory scale. The productivity is also progressing quickly. Yield and productivity have reached a threshold meeting the expectations for profitable exploitation of the process at commercial scale for high value applications such as cosmetics.

Isobutene has a very broad range of applications, ranging from fuels and commodity chemicals to cosmetics. Global Bioenergies' goal is to provide a bio-based isobutene process meeting the requirements for all the applications, i.e. able to compete pricewise with fuels and materials derived from oil. The higher the performances, the lower the production costs, and thus the broader the range of applications that can be exploited profitably. Since more than 70% of the costs at commercial scale will be represented by the feedstock (the industrial grade sugar that is converted into isobutene), the most important parameter is yield.

In order to reach this milestone, Global Bioenergies has built new bacterial strains, with an entirely redesigned carbon metabolism. When provided with a powerful isobutene route, the improved strains have shown their capability, at lab scale, of achieving more than 87% of the final target yield over the whole production phase, meaning that 87% of the sugar consumed by the strains is directly contributing to produce isobutene.

In addition, the new strains show a markedly better productivity. Productivity speaks about the speed at which strains convert sugars into isobutene, and translates into OPEX and CAPEX cost, which will represent the remaining 30% of the costs at commercial scale.

Reproduced at commercial plant scale, these performances would sustain profitable exploitation for the high-value applications of isobutene, such as cosmetics. The process based on the new strains is presently moving down the scale-up chain, with first industrial pilot testing showing very promising results.

Frédéric Pâques, COO of Global Bioenergies declares: "The increase in performances we are observing over 2018 has contributed to considerably de-risk the project. We will continue to work at improving yield and productivity, but we have passed a threshold that allows us to balance the priorities. Our major objective is now to obtain a perfect stability in industrial conditions at demo scale. Given the current state of the art and the steep progression observed this last year, we should now reach new summits within months."

Marc Delcourt, CEO of Global Bioenergies, adds: « These outstanding progresses bode well for IBN-One, the first commercial plant project we co-own together with Cristal Union, one of the leaders in the European sugar industry. Our process will count in the technological arsenal our civilization now needs to win the battles against global warming, air pollution in cities, and oil depletion. »

About GLOBAL BIOENERGIES

Global Bioenergies is one of the few companies worldwide, and the only one in Europe, that is developing a process to convert renewable resources into hydrocarbons through fermentation. The Company initially focused its efforts on the production of isobutene, one of the most important petrochemical building blocks that can be converted into fuels, plastics, organic glass and elastomers. Global Bioenergies continues to improve the performance of its process, to operate its demo plant in Germany, and to prepare the first full-scale plant through a joint venture with Cristal Union, named IBN-One. Global Bioenergies is listed on Euronext Growth Paris (FR0011052257 – ALGBE)

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