

Smart Sustainable Materials

IBioIC ScotChem workshop

Ian Archer Technical Director Industrial Biotechnology Innovation Centre

ian.archer@ibioic.com

Five key themes of IBioIC Phase II









Industrial Biotechnology and the bioeconomy











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.



♠ 5, rue Henri Desbruères 91000 Evry France

🔀 Via email

+(33) 1 64 98 20 50

Process development began in 2008
Leuna demo facility potential 100te pa opened 2016





Stage 1 – Proof of concept

- Process development began in 2008
- Leuna demo facility (potential 100te) pa opened 2016
- Still demonstrating





- HTS technology platform adapted to the identification of enzymatic activities involved in the synthesis of light olefins
- Similar results were obtained for the « HIV synthase » segment







Industrial Biotechnology and the bioeconomy

- new forms of packaging and plastic made from farming, food and industrial waste, like sugar beet, wood chippings and food waste – moving away from oil-based plastics
- smart packaging labels which, alongside a smart bin, could tell consumers the right bin to put recycling into and revolutionise the way recycling is sorted in waste plants
- 'live' sell-by-date patch a living sellby-date which deteriorates at the same rate as produce to show consumers when their food is going off – cutting down on food waste
- reduce single use plastics increase use of recycled plastic in new products



Press release

Food scraps could be turned into environmentally friendly plastic packaging

UK to lead the world in development of sustainable packaging thanks to new government funding.

Published 5 December 2018 From: Department for Business, Energy & Industrial Strategy and The Rt Hon Claire Perry MP

> Innovate UK Knowledge Transfer Network

 $\pm 60 M$



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