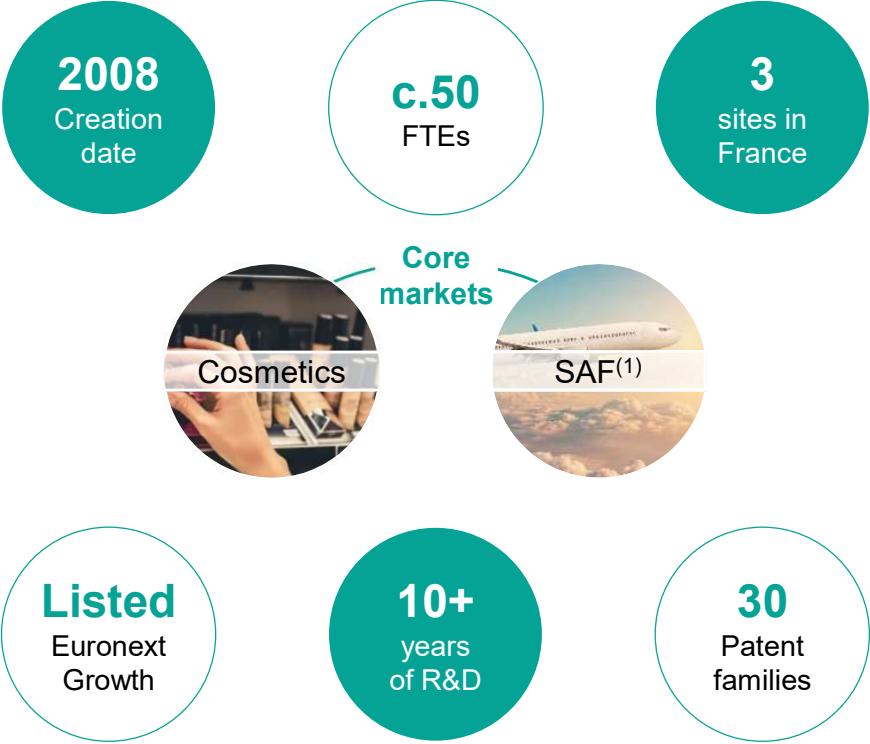
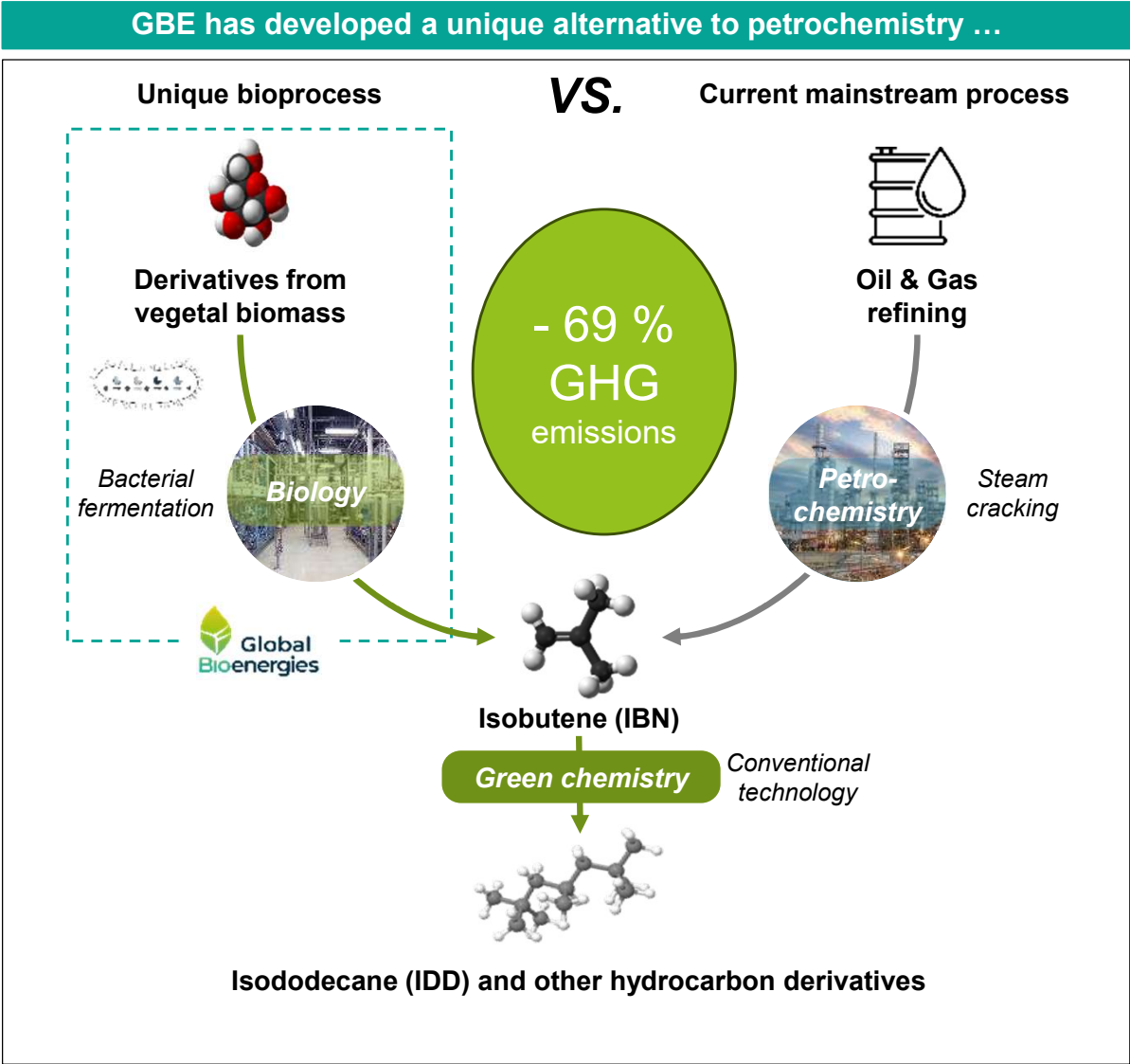


Global Bioenergies is fostering the environmental transition through biosciences







Global Bioenergies (GBE) has successfully developed a unique process to synthesize bio-based isobutene (IBN) and its numerous high-performance derivatives, and is now looking to build manufacturing plants to reach large scale markets



GBE has developed a unique bioprocess to synthesize isobutene from natural sources



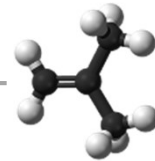
... by leveraging breakthrough research

-  **Process unique in the world**
-  **Like-for like substitute for petrochemical molecules**
-  **Bio-based molecules** produced from agricultural and forestry byproducts⁽¹⁾
-  **Gradual, proven improvement** of process performance
-  **Patent protected process**
-  **Supported by L'Oréal**, worldwide leader in cosmetics

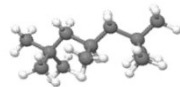
Note: (1) Such as beet sugars, wheat starch, and wood chips

IBN derivatives have high-value applications in many markets

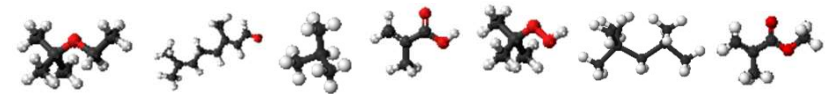
IBN is the **smallest branched carbon structure** on Earth, which can be converted into numerous **high-performance compounds**. These performances traditionally **cannot be obtained from products extracted from Nature**



Strategic focus following market assessment



Other Potential markets



IDD and IHD⁽¹⁾



Cosmetics



Sustainable Aviation Fuels

Perfect replacement for petrochemical IDD and a good alternative to cyclic silicones in make-up, skin care and hair care

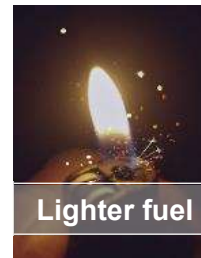
ASTM-certified SAF pathway with the potential to replace petrochemical jet fuel in planes

High sales price

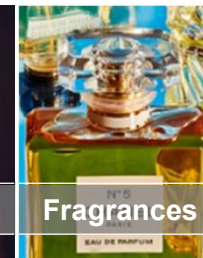
Large volumes



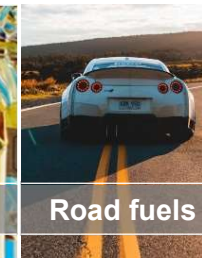
Other IBN derivatives



Lighter fuel



Fragrances



Road fuels



Paint



Propellant



Adhesives



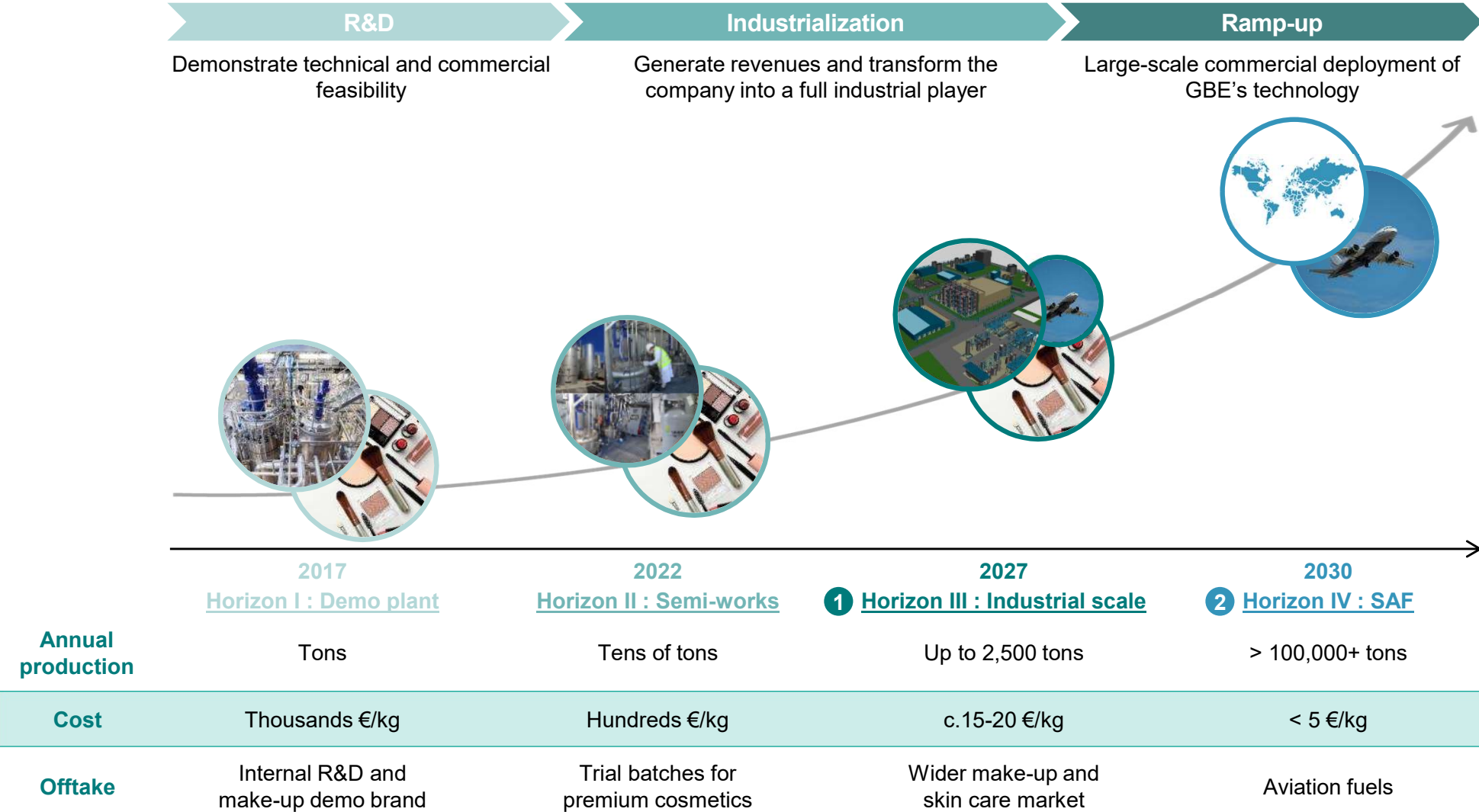
Butyl rubber



Plexiglass

And : lubricants, sealants, cling films, additives

GBE's strategic roadmap: from cosmetics to biofuels



GBE has achieved several significant milestones in the last few months



Process improvements

Significant decrease in production costs achieved through **better-performing bacterial strains and integrated process**

c.3x

Reduction in projected production costs, year-on-year



Commercial success

Several letters of intent received from renowned cosmetics players at **attractive prices, for volumes exceeding plant capacity**

2,500+

Tons of commercial production secured via letters of intent



Government support

Significant public subsidies obtained highlight support of GBE by policymakers and reduce equity needs

€20m+

Public subsidies and pre-funding achieved



Approval to fly

GBE's fuel can now be blended with fossil jet fuel as a drop-in fuel in existing airplanes following successful ASTM certification



Certification achieved

1

Horizon III production will be mainly be dedicated to the global cosmetics market

IDD and IHD are key ingredients in cosmetics

IDD and IHD are **used since decades in cosmetics** for their unique properties

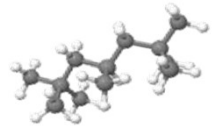
Isonaturane™ is a perfect replacement for petrochemical IDD/IHD

With the **same molecular composition and properties**, GBE's Isonaturane™ can replace petrochemical IDD/IHD **on a like-for-like basis** and is a good alternative to cyclic silicones (CS)

Using GBE's Isonaturane™ is the only way for brands to claim naturalness

Switching from petrochemical IDD to GBE's natural product enables a **strong marketing claim** and product differentiation for cosmetic brands at a **limited increase in sourcing costs** (below 0.5% of the total retail price⁽¹⁾)

Isododecane's main properties



Isododecane's strongest case is in **long-wear, waterproof and no transfer** make-up and skin care formulas



Powerful solvent



Highly volatile



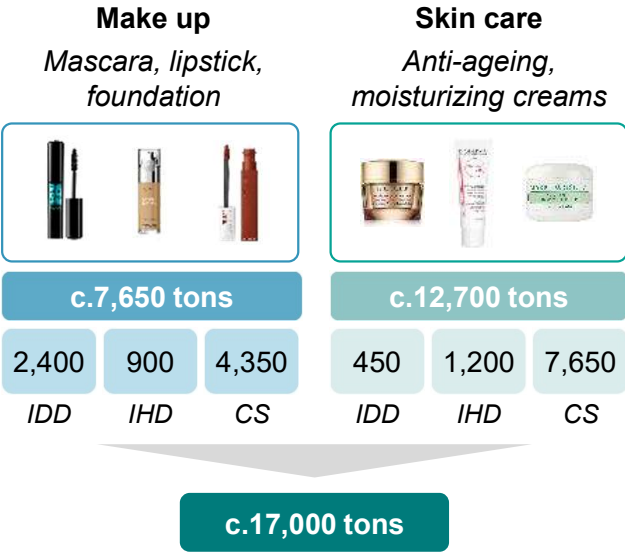
Aerial emollient



Safe to use

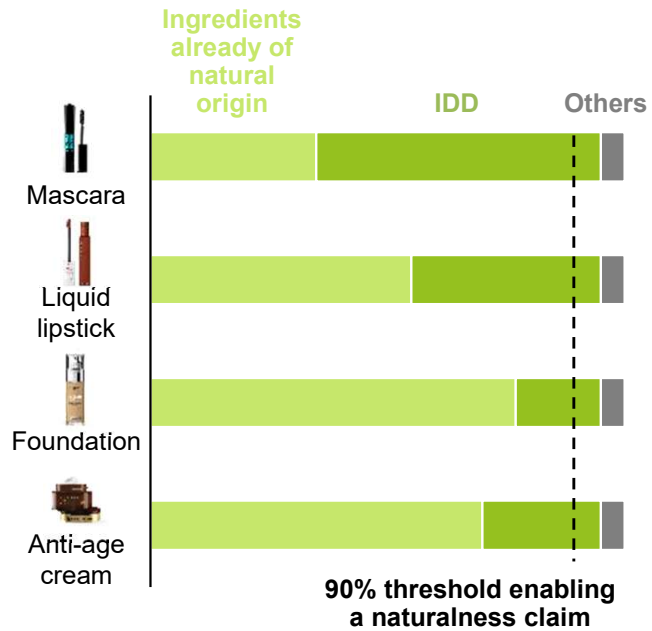
Core global addressable market for GBE

in tons



GBE's core global addressable market

Impact of switching to GBE's IDD on naturalness

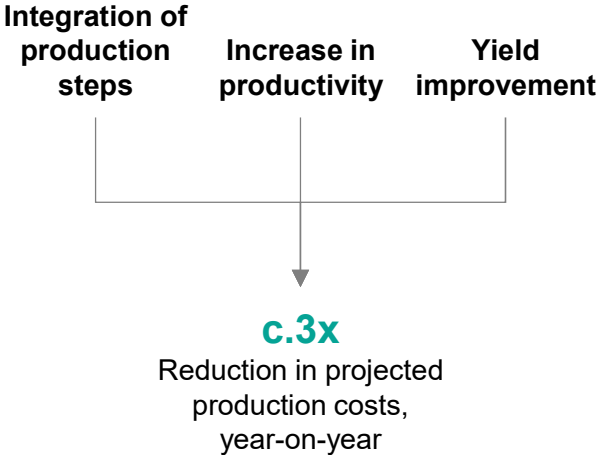


Process improvements have resulted in significant commercial traction over the last few months

GBE has significantly improved its process

By **improving the performance of its proprietary bacterial strains** and **integrating several processing steps**, GBE has achieved a major decrease of the production cost of IBN derivatives

Improvement in production costs



GBE has validated the global cosmetics market interest for IDD/IHD

GBE has managed to obtain over the past months several **letters of intents** from renowned cosmetics players **worldwide** and has **ongoing discussions** for additional volumes – with several regions yet to be tapped

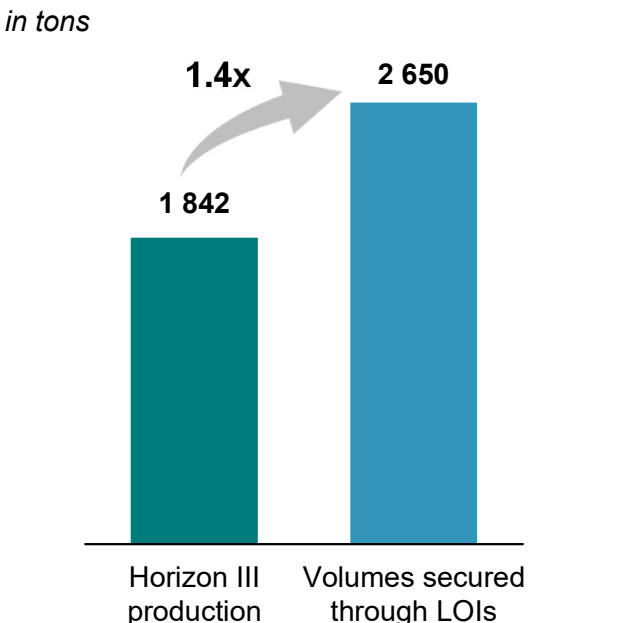
Origin of LOIs received



Total volumes now exceed plant production capacity

The **Horizon III production is largely oversubscribed**, confirming the market's interest for IBN and IBN derivatives – at **prices ensuring an attractive return profile for the project**

2028 production capacity vs. offtake volume





Gotten
green 