

ABOUT CORBION

Preserve what matters

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Our biobased products are powered by nature – Enabling to replace fossil-based ingredients in a variety of applications ca € 1bio sales - 2400 employees

- $ca \in 1000$ sales 2400 employ
- **16 industrial sites**

Our products give our customers:

- Improved functionality
- Lower cost in use
- Enhanced environmental credentials
- Natural and biobased

Our markets

- Natural Food preservation
- Electronics
- Agrochemicals
- Pharma / Home & Personal Care
- Animal Health
- Biomaterials / biopolymers





We are facing many challenges ...

- ✓ Climate change
- ✓ Water scarcity
- ✓ Loss of Biodiversity
- ✓ Land availability
- ✓ Contaminants

✓ Nutritional values vs affordability



Biodiversity Loss



We are currently living a "*biodversity crisis*", losing species on a daily basis and **1,00 times** *quicker* than under *natural circumstances*.

Scientists estimate that approximately **150 to 200 species** are extinct every 24 hours.





According to *Kew Royal Botanic Gardens*, **21% of the plants worldwide** are in danger of extinction.



... and have to resolve a complex equation !

CREATING A SUSTAINABLE FOOD FUTURE BY 2050





Paris Agreement

PARIS2015 CONFÉRENCE DES NATIONS UNIES SUR LES CHANGEMENTS CLIMATIQUES

COP21.CMP11



Warming paths Scenarios for global temperatures, 2010-2100

Sources: BlackRock Investment Institute and Climate Action Tracker Project, July 2016.



Our purpose

We champion preservation in all its forms: Preserving food and food production, health, and the planet.







How Corbion contributes to SDG 12





At CORBION

We believe biotechnology / fermentation is part of the solution

Leadership position in lactic acid with > 50% global marketshare



5 Biorefineries backward integrated with most cost effective / available feedstock



Extended Fermentation Platform Concept



Market Needs Natural Clean Label Natural Flavor Low Sodium Freshness Anti-Yeast & Mold Anti G- / G+ Anti Spores Biodegradable

Diverse Output

Lactic acid Acetic acid Propionic acid Glycolic acid Fatty acids ...



Expanding into Microalgae fermentation

Microalgae production powered by renewable energy



Low carbon, water and land footprint due to sugarcane feedstock



Expanding into Microalgae fermentation

Long-chain omega-3 sources from algae







- Strong combination TotalEnergies & Corbion (50/50 joint venture)
 - Fully integrated manufacturing from Lactic acid to Lactide to PLA
 - Total: brings global market access, polymer know-how & production
 - · Corbion: brings fermentation technology / lowest cost lactic acid
- Strong volume ramp-up since opening end of 2018 / profitable as from Q2 2020
- Building a new facility in France / Grandpuits / 2024





Investments in sustainability lactic acid capacity

- Gypsum-free technology
 - Lowest cost technology available
 - Lowest carbon emissions process
 - Negative carbon footprint (cradle to gate, incl. biobased uptake)

Large emission reduction gypsum-free production process



kg CO₂ per kg product - cradle to gate'





Challenges and opportunities

- Capital intensity
- Feedstock accessibility / competitivity ref food crops
- Regulation : Taxonomy / CEBAM We need a stronger voice
- Leverage Greendeal to attract more projects in France / Europe
- Leverage the French bioeconomy ecosystem / partnership



