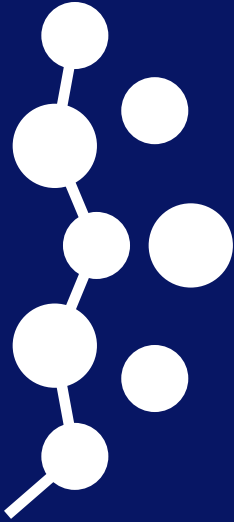




# CARBIOS

Enzymes powering the Circular Economy





# Enzymes powering the Circular Economy

April 2021

Bank Of America – Investor Conference Call

CARBIOS PRESENTATION & 2021 STRATEGIC UPDATE



**CARBIOS**

Enzymes powering the Circular Economy



# Disclaimer

This presentation was prepared by Carbios (the "Company") for the sole purpose of being used at investor presentations.

By receiving this presentation and attending this meeting, you acknowledge yourself to be acquainted with the following restrictions.

This presentation is promotional in nature and does not constitute a prospectus within the meaning of Regulation (EU) 2017/1129 of the European Parliament and of the Council of 14 June 2017 (the "Prospectus Regulation").

Neither this presentation nor a copy hereof, or any information contained therein constitutes an offer or invitation to sell or purchase, or a solicitation of any offer to purchase or subscribe for shares of the Company in any country.

This presentation is delivered to you on a personal basis, solely for your information, and may be used only for the requirements of the Company presentation.

This presentation and its contents are confidential and may not be copied, distributed or transferred to any other person, published or reproduced, whether directly or indirectly, wholly or partly, by any means, in any form and for any purpose whatsoever. You must observe all legislation applicable to the possession of such information including insider trading legislation, current regulations or the recommendations of the AMF. Neither this presentation nor a copy hereof, or any information it contains, may be conveyed, disclosed or distributed, whether directly or indirectly, in the United States, Canada, Japan or Australia, or to any resident of those countries.

Non-observance of any or all of these restrictions may constitute a breach of statutory restrictions governing the offering of financial instruments in the United States, Canada, Japan or Australia. The distribution of this document in other countries may be subject to legal restrictions, and any persons who may come into possession of it must inform themselves of the existence of any such restrictions and comply therewith.

This presentation was prepared by the Company under its sole responsibility. The information shown hereafter has not been independently verified by the Company, its advisers or any other person, and it may be subject to possibly significant updating, additions and revisions.

The Company, its advisers and their representatives shall under no circumstances incur any liability for any loss or damage, whether arising from any use made of this presentation or its content, or in any way connected with this presentation. The Company is under no obligation to update the information contained in this presentation, and any information contained in this presentation is subject to change without notice.

This presentation contains statements about the Company's aims and lines of development. These statements are sometimes identified by the use of the future tense or conditional mood, as well as terms such as "estimate", "have the objective of", "intend to", "expect", "result in", "should" and other similar expressions. This data is subject to risks and uncertainties that may later result in actual results that are substantially different. This forward-looking information does not reflect historical data and as such may not be interpreted as warranties that the facts and data cited will occur, that the assumptions have been verified and the objectives will be met. By nature, these objectives might not be achieved and the assumptions on which they are based may prove to be erroneous, without the Company, its advisors and their representatives being subject to any obligations to update this forward-looking information, subject to applicable regulations. This information about the objectives and any other statements which may be made by the Company from time to time are subject to certain risks and uncertainties linked to the Company's operating performance as well as any other future events and their potential effects on the Company subject to risks and uncertainties, where the Company's results, performances or achievements may differ significantly from future results, performances or achievements expressly or implicitly indicated in these forward-looking statements on objectives. In addition, these forward-looking statements necessarily depend upon assumptions, estimates and dates that may be incorrect or imprecise and involve known and unknown risks, uncertainties and other factors. Accordingly, any forward-looking statements included in this announcement do not purport to be predictions of future events or circumstances and may not be realized.

Except as required by applicable law, the Company assumes no obligation to update any of these forward-looking statements to reflect actual results, changes in assumptions or changes in other factors affecting these forward-looking statements. Nothing contained herein shall be deemed to be a forecast, projection or estimate of the future financial performance of the Company.



# Carbios at a glance

Founded in  
2011

38 patent  
families

Multi-source  
revenue  
business model

Strategic  
agreement with  
renowned  
brand owners

Exclusive  
partnership

**novozymes**  
Rethink Tomorrow

39 employees

The first and only company to have developed biological technologies for the end-of-life of plastics and textiles



# Ambition

Lead the transition towards sustainable plastics economy by developing technologies for the end of life of plastics

## Technologies



Enzymatic biorecycling technology to recycle PET plastics and fibers to infinity



EVANESTO



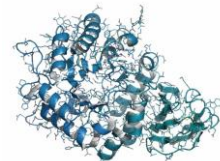
(62,7%)

bpi**france**

(37,3%)

Evanesto® by Carbiolice:

First natural enzyme-based additive to fully biodegrade PLA-based plastics





# Enzymatic biorecycling technology: Demonstration plant start up on track

Operational  
launch in  
September  
2021

- Technical data generation
- Main parameters definition for each step of the enzymatic recycling process
- Future industrial Unit operations planification
- Fully operational Process Design Package (PDP)

Engineering and construction in partnership with:



Demonstration plant under construction in Clermont-Ferrand

A key step towards building a first of a kind recycling facility



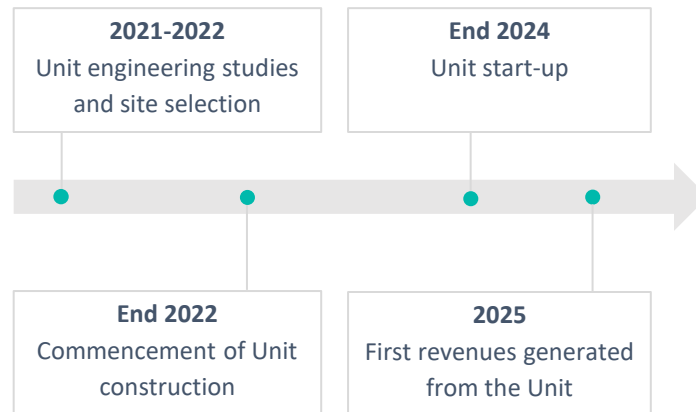
# April 2021 Strategic update (1/2)

A new major step in the development of Carbios with the building of a first of a kind 100% PET recycling facility (the “Unit”)

## ■ Characteristics of the Unit

- annual production of c. 40,000 tons per year
- providing c. 48,000 tons of CO<sub>2</sub> potential savings annually
- diverting PET wastes from incineration and landfilling according to preliminary data<sup>(1)</sup>

## ■ Key timetable for the building of the Unit



Estimated cost of the Unit of c. €100 million  
Carbios has started to explore various financing options



# April 2021 Strategic update (2/2)

- **Signing of a first non-exclusive and non-binding Expression of Interest agreement with Equipolymers**

- **A leading European PET producer which could host the Unit on its site**

- **The agreement foresees**

- an assistance in securing the sourcing of PET feedstock for the Unit
- Shared access to data coming from Carbios' demonstration plant, its biorecycling technology and from Equipolymers' facilities



PET production  
annual capacity  
of c. 335,000  
MT/year

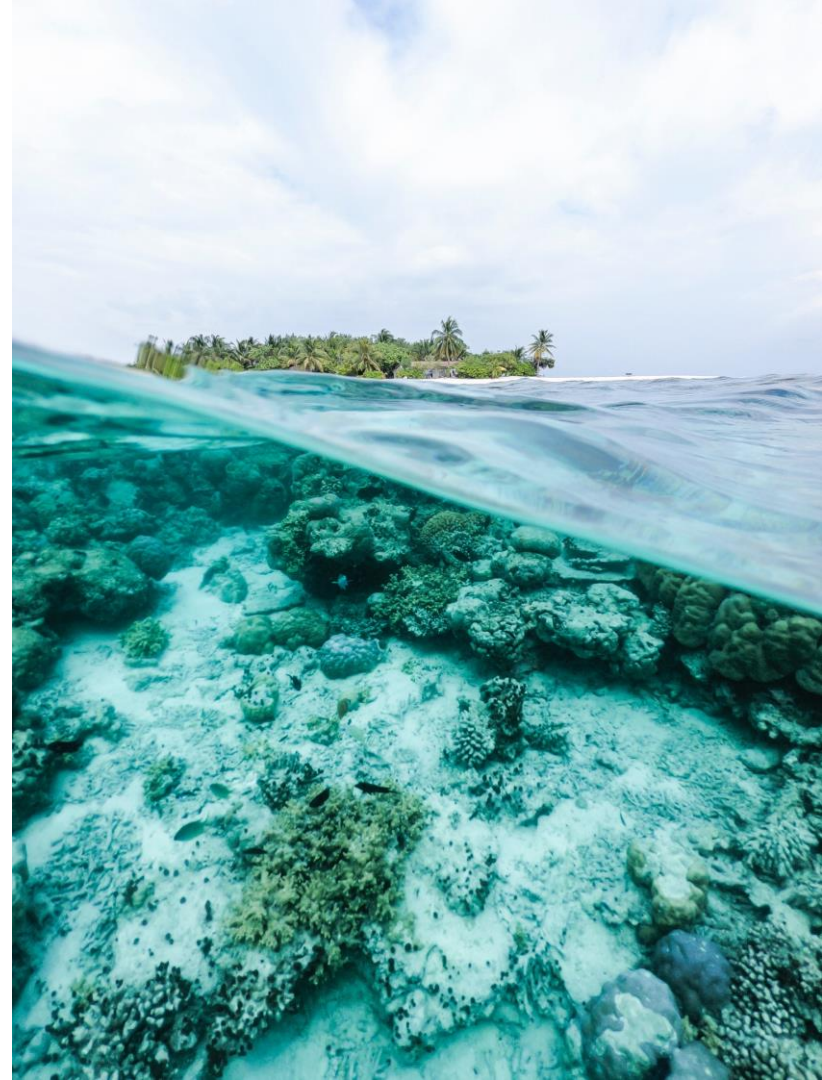
2 production  
lines in  
Germany  
(ISO-certified)

Combination of Carbios' unique biorecycling technology and Equipolymer's manufacturing and R&D know-how





## ADDRESSING HIGH GROWTH POTENTIAL MARKET WITH STRONG DRIVERS





# The situation – Environmental issue

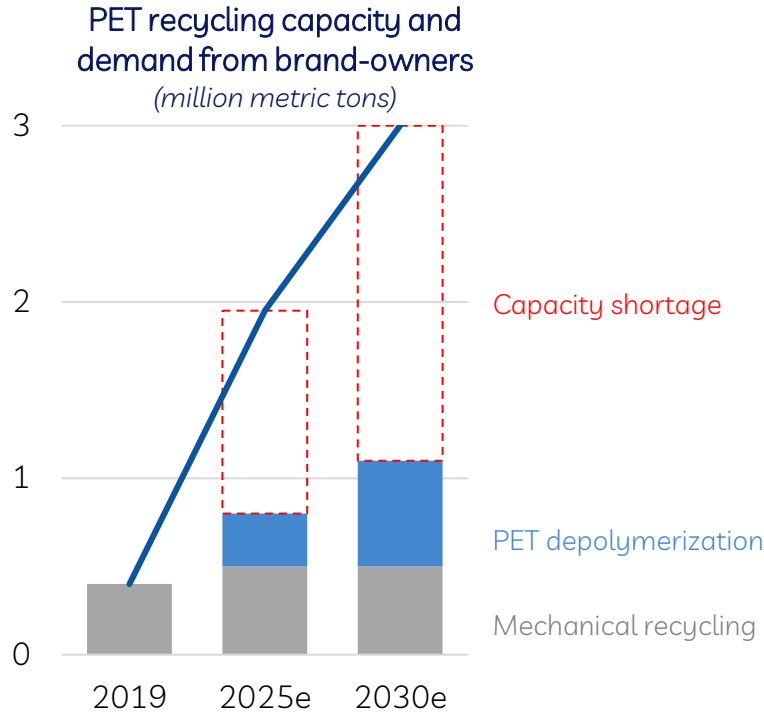
## Each year...

- 86% of packaging waste goes unrecycled globally<sup>(1)</sup>.
- **350 to 400 million tons**<sup>(2)</sup> of plastic are produced worldwide, including **70 million tons of PET**<sup>(3)</sup> worth approx. \$80 billion (a market growing by 4% p.a.<sup>(4)</sup>).
- **150 million tons**<sup>(5)</sup> of plastic waste are generated including **9 million tons**<sup>(6)</sup> that ultimately end up in the natural environment, particularly in our seas and oceans.
- 500 billion units<sup>(7)</sup> of plastic bottles are produced each year and fewer than half are collected for recycling.
- Up to **\$120 billion**<sup>(8)</sup> worth of plastic material is disposed of just after one single-use.





# The situation – Missing capacities



Source: BloombergNEF – Q1 2020

The polyester industry is facing a major change.

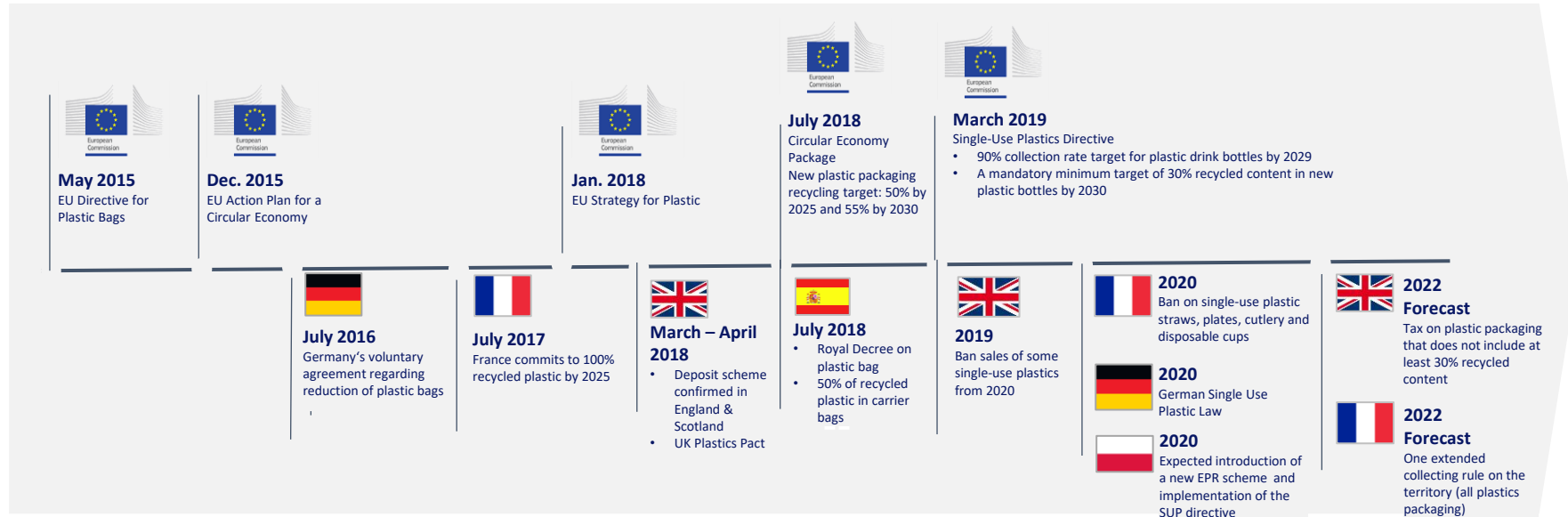
Only new recycling technologies will enable PET producers to even partially meet the demand of their customers and States to meet their regulatory targets\*.

\*50% of EU plastic waste collected used to be sent to China for recycling.



# The situation – A growing regulatory pressure

Regulatory pressure is also growing at both the EU and national levels.



Many European initiatives and associations such as the European Plastics Pact and the Circular Plastic Alliance, bring together several actors from the industry, academics, and public authorities, to accelerate the transition towards Circular Economy. This is made possible by considering the whole plastic value chain, and notably by aiming at boosting the recycled plastic EU market.



# Strong drivers for more sustainable solutions



**L'ORÉAL  
PARIS**

**July 2020:** "by 2025, 100% of our plastic packaging will be refillable, reusable, recyclable or compostable"



**Oct. 2016:** "design 100% of its packaging to be recyclable, compostable or biodegradable by 2025"



**Unilever**

**Jul. 2017:** "100% of packaging recyclable, reusable or compostable by 2025" and "Recycled plastic content to at least 25% by 2025"



Good Food, Good Life

**Jan. 2019:** "Nestlé Waters will increase the recycled PET content in its bottles to 35% by 2025"



**Sept 2019:** "Our ambition? Offer 100% sustainable plastic bottles made from recycled or bio-sourced materials for our entire beverage portfolio."



**Mar. 2019:** H&M Group signatory of the New Plastics Economy Global Commitment. "Our business to become 100% circular and renewable"



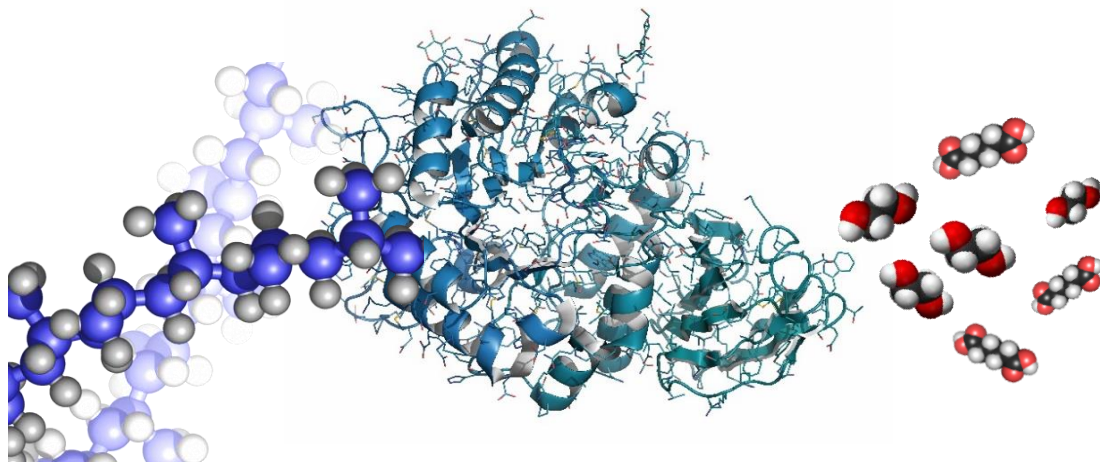


WORLD FIRST ENZYMATIC  
TECHNOLOGY TO RECYCLE AND  
REUSE PET-BASED PLASTICS AND  
FIBERS





# Enzymes to fully break-down plastics!



Polymers

(plastics and fibers)

Carbios enzymes

Monomers

(building blocks)

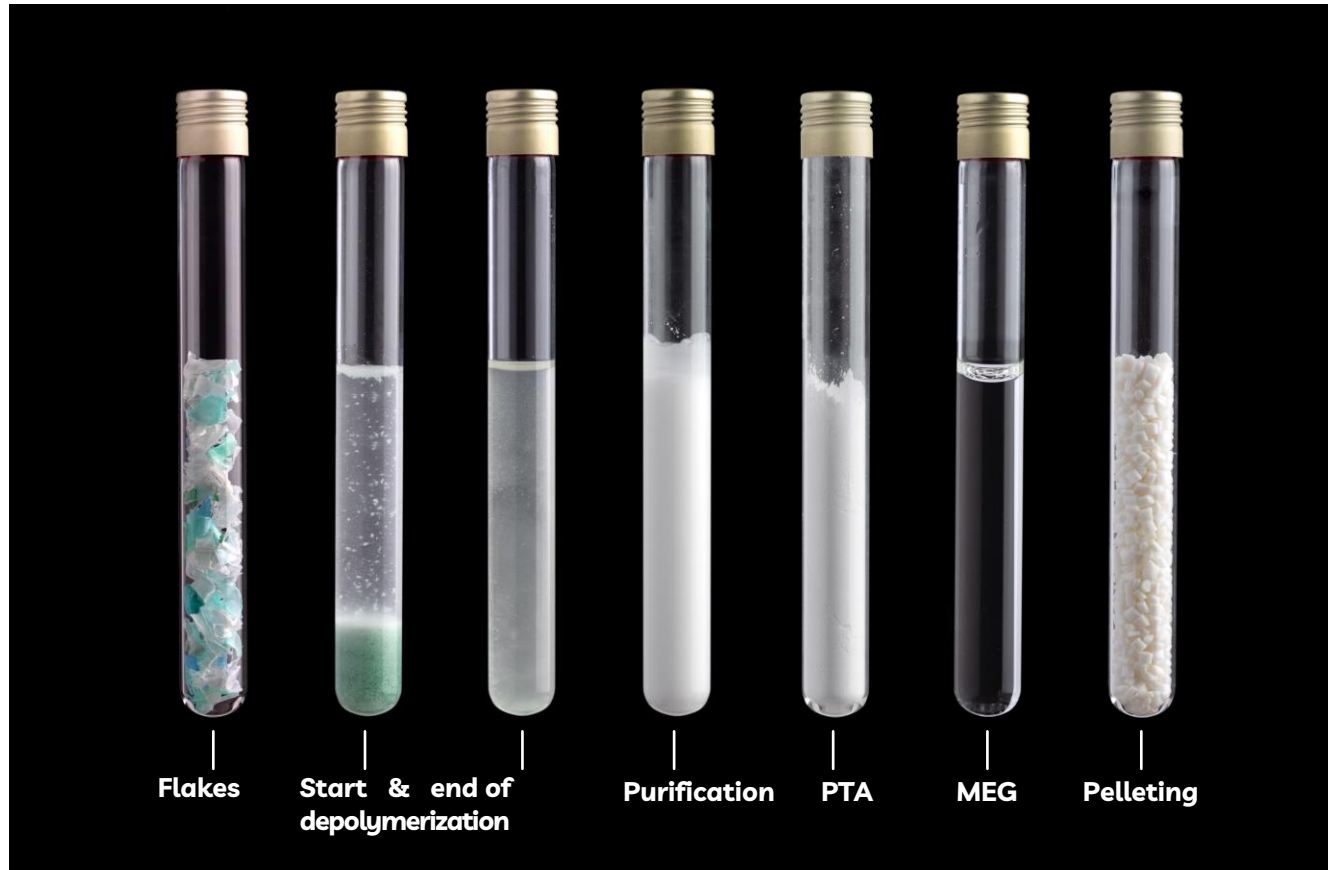


INFINITE RECYCLING

A revolutionary process for infinite recycling of plastics and fibers



# How does it work?





# Benefits of the technology

- ✓ 100% recycled PET
- ✓ A process that can handle all forms of PET plastics (clear, colored, opaque, multi-layer...) and polyester fibers
- ✓ No inhibition of the enzyme by colorants, pigments, carbon black or other polymers (PE, PA, PVC...)
- ✓ Depolymerization at low temperature, atmospheric pressure, water based
- ✓ Diversion of all PET-based plastics and polyester fibers from landfills and incineration

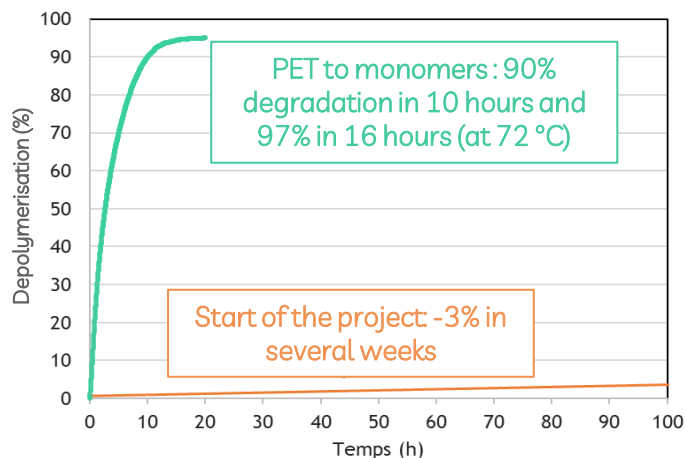


Carbios' innovation offers the potential to recycle PET plastics infinitely and contributes to achieving 100% recycled PET content in new products





PUBLICATION OF AN ARTICLE IN THE  
PRESTIGIOUS SCIENTIFIC JOURNAL NATURE  
co-authored by researchers at Carbios and  
Toulouse Biotechnology Institute (TBI) laboratory



Depolymerisation kinetics of commercial PET plastic waste (colored flakes, washed with 95% PET)

# nature



## CLEARING THE BOTTLENECK

Engineered enzyme promises efficient route to recycle and reuse PET plastics



# PET brand-owners consortium agreement



L'ORÉAL



- A 4-year agreement signed in April 2019
- Accelerate the technology's readiness and bring it to full industrial scale
- Increase the availability of high-quality recycled plastics
- Demonstrate the technical, economic and environmental efficiency of Carbios' technology
- Support the structuring of an industrial value chain for an efficient supply of consumer-grade PET

Global key players team up to boost recyclability of PET plastic products

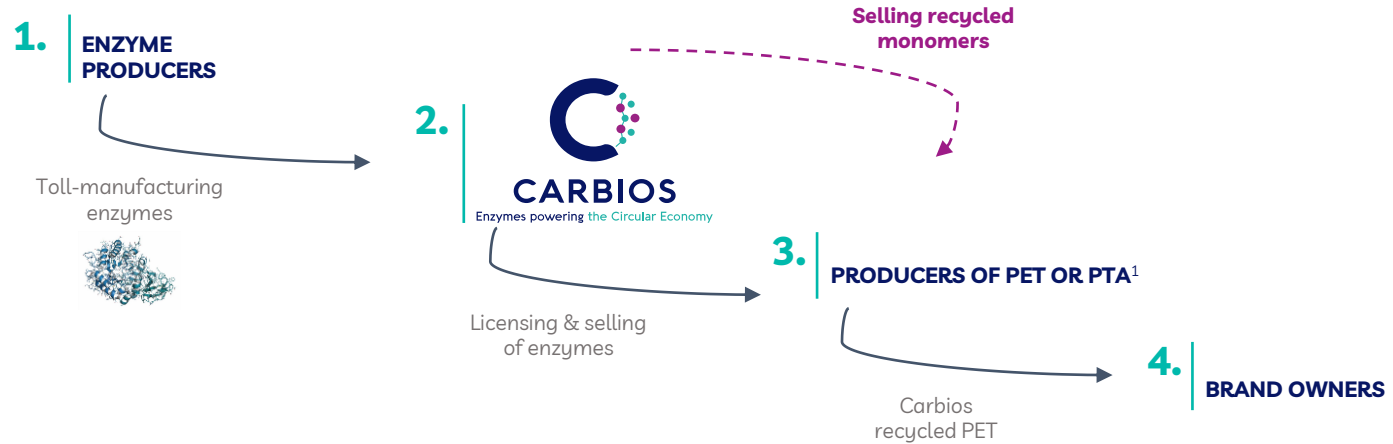


# Carbios creates value for all players of the value chain





# PET Recycling: our business model



- Market demand guaranteed for the first licenses through our brand owners Consortium, and beyond...
- Two strategic revenue streams for Carbios: **license deals and selling of enzymes**
- Revenues from Carbios' Unit will be driven by the **sale of recycled monomers**



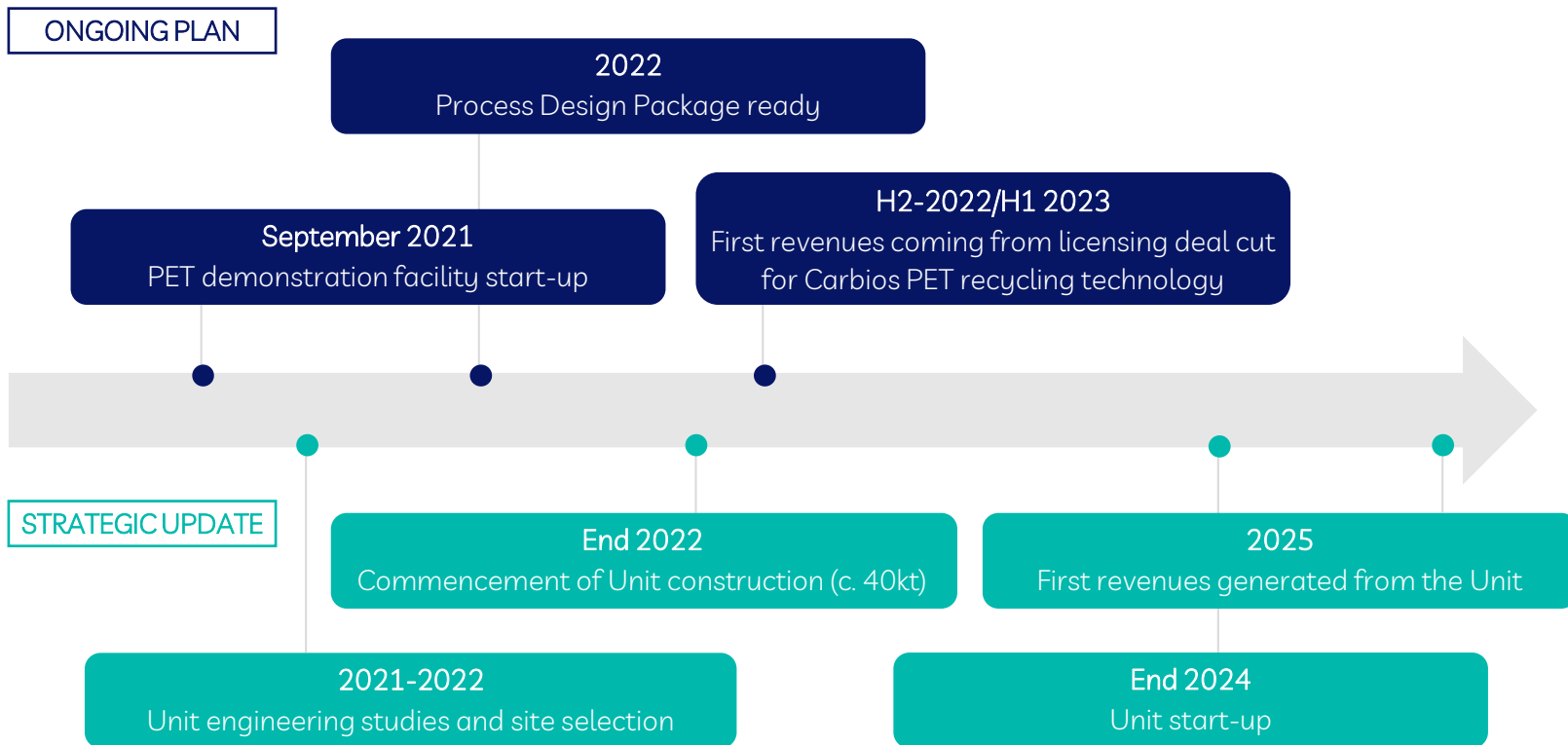


## A CLEAR ROADMAP TO COMMERCIAL SUCCESS





# What we plan to deliver next?

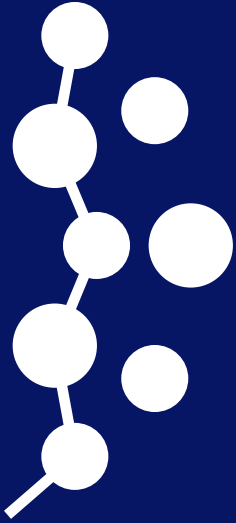




# Key takeaways

- 
- 1 A pioneer in the development of enzymes for plastic processing
  - 2 Breakthrough technologies to disrupt the plastic industry
  - 3 Huge market opportunities and growth potential
  - 4 Numerous strategic partnerships with worldwide blue-chip industry experts
  - 5 Major milestones ahead including reaching licensing stage end of 2022/ early 2023 and first substantial revenues generation
  - 6 Highly experienced management supported by renowned shareholders and partners





# Enzymes powering the Circular Economy

April 2021

## APPENDIX



**CARBIO**

Enzymes powering the Circular Economy



A light gray world map with 14 green circular icons containing a white checkmark, distributed across all major continents to represent global presence. The locations include North America (USA, Canada), South America (Brazil), Europe (UK, France, Germany, Russia), Africa (South Africa), Asia (India, China, Japan, South Korea), Southeast Asia (Singapore, Indonesia), and Australia.

Europe, United-States, Canada, Mexico, China, India, Japan...



On all results of R&D collaborations

In the development of bioprocesses combining enzymes & polymers

### Protecting the applicative use of enzymes, processes and products



# 2020 Highlights

## Scientific milestones

- **Publication of an article** co-authored by Carbios and TBI in the **prestigious scientific journal Nature** (April 2020)
- Production of the **first clear bottles from enzymatically recycled textile waste** (November 2020)

## Partnerships

- **JDA with Novozymes** for the production of **PET-degrading enzymes** (January 2020)
- **Launch of a cooperative lab** with the Toulouse Biotechnology Institute (January 2020)
- **Carbios to move facilities** to a Michelin site in Clermont-Ferrand, France (September 2020)

## Industrial scale-up

- **Construction of an industrial demonstration plant for the enzymatic recycling of PET** (June 2020)
- **Commercial launch of Evanesto®** (December 2020)

## Finances

- **Successful Private Placement for a total amount of €27 million**, concurrently with a €10 million Secondary Offering (July 2020)
- **Acquisition of Limagrain Ingredients equity stake** in the capital of Carbiolice (October 2020)



# Share & Shareholders

As of April 1<sup>st</sup>, 2021

<b>MARKET</b>	Euronext Growth Paris
<b>MNEMO/REUTERS/BLOOMBERG</b>	ALCRB / ALCRB.PA / ALCRB:FP
<b>SHARES ISIN CODE</b>	FR0011648716
<b>NUMBER OF SHARES</b>	8,164,472
<b>ICB CLASSIFICATION</b>	Chemistry / Speciality chemistry
<b>INDICES</b>	Euronext Growth All-share, Euronext Growth Bpifrance Innovation Index, Enter Next PEA PME 150
<b>FRENCH PEA-PME ELIGIBILITY</b>	Yes

**ANALYST COVERAGE**



Baptiste de Leudeville



Xavier Regnard



Alexandre Letz

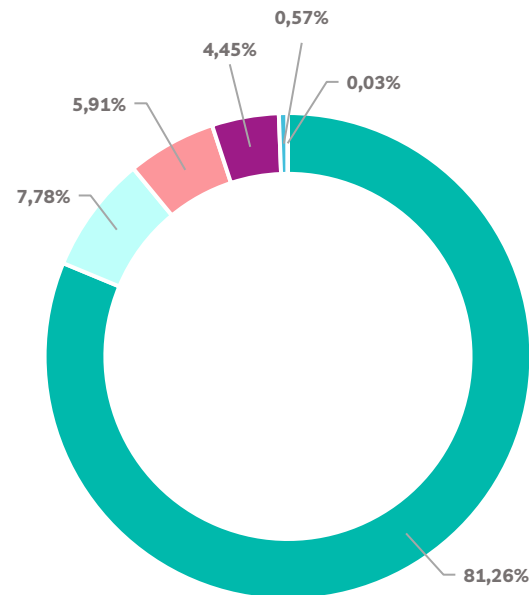


ODDO BHF

Hana Maalej



Laurent Gelebart



- Free Float
- HNWI
- BOLD (L'Oréal)
- Michelin Ventures
- Truffle Capital
- Treasury shares





# FY 2020 Income Statement

(In thousand euros)	December 31, 2019	December 31, 2020
Operating revenue	1,450	1,643
Operating expenses	(5,986)	(8,464)
<b>Operating Income</b>	<b>(4,535)</b>	<b>(6,821)</b>
Financial Income	(29)	(93)
<b>Current Income before Tax</b>	<b>(4,564)</b>	<b>(6,914)</b>
Extraordinary profit (loss)	15	(720)
Income tax (Tax research credit)	800	1,488
<b>NET INCOME (LOSS)</b>	<b>(3,749)</b>	<b>(6,146)</b>



# FY 2020 Simplified Balance Sheet

<b>Assets</b> (in thousand euros)	<b>December 31, 2019</b>	<b>December 31, 2020</b>
<i>Intangible assets</i>	858	1,086
<i>Tangible assets</i>	1,107	1,236
<i>Assets in progress</i>	1,308	3,558
<i>Financial assets</i>	12,027	20,907
<b>Fixed Assets</b>	<b>15,300</b>	<b>26,786</b>
<i>Inventory</i>	21	39
<i>Receivables</i>	1,065	2,150
<i>Cash and marketable securities</i>	15,915	29,097
<i>Pre-paid expenses</i>	75	139
<b>Current Assets</b>	<b>17,076</b>	<b>31,425</b>
<i>Deferred financing costs</i>	11	17
<b>TOTAL ASSETS</b>	<b>32,386</b>	<b>58,228</b>



# FY 2020 Simplified Balance Sheet

<b>Liabilities &amp; Equity</b> (in thousand euros)	<b>December 31, 2019</b>	<b>December 31, 2020</b>
<b>Shareholder's equity</b>	<b>22,005</b>	<b>45,135</b>
<b>Conditional advances</b>	<b>4,250</b>	<b>4,173</b>
<i>Loans</i>	3,818	5,647
<i>Trade payables and related accounts</i>	1,387	1,952
<i>Other liabilities</i>	750	1,146
<i>Prepaid income</i>	176	176
<b>Payables</b>	<b>6,131</b>	<b>8,921</b>
<b>TOTAL LIABILITIES &amp; EQUITY</b>	<b>32,386</b>	<b>58,228</b>



# FY 2020 Cash Flow Statement

Cash flow (in thousand euros)	December 31, 2019	December 31, 2020
<b>Cash at the opening</b>	<b>5,149</b>	<b>15,915</b>
Net cash generated by operations	(3,036)	(5,169)
Net cash from investments	(2,406)	(12,667)
Net cash from financing operations	16,209	31,019
<b><i>Change in cash</i></b>	<b><i>10,766</i></b>	<b><i>13,182</i></b>
<b>CLOSING CASH</b>	<b>15,915</b>	<b>29,097</b>



# Management team



**Jean-Claude  
LUMARET**

**Founder & CEO**

**40 years' experience in the international agro-industry and intellectual property expert**

- **METABOLIC EXPLORER:** VP Strategy & Innovation (Member of the Executive Committee)
- **ROQUETTE:** Director, Business Intelligence, Director BU Fermentation and Industrial Chemistry, Director, Intellectual Property and Regulatory Affairs
- Chemical Engineer, Lyon University, European Trademark Expert, CEIPI Center for International IP Study, Strasbourg



**Martin  
STEPHAN**

**Deputy CEO**

**30 years' experience in the chemical industry**

- **CHEMOURS:** Global Director of the Fluorotelomers business, EMEA Director, Sourcing, Logistics & Real Estate
- **DU PONT DE NEMOURS:** Global Product Manager, Business and Market Manager, Sales Director
- **ATOFINA:** Global Business Manager Fluorotelomers
- **ELF ATOCHEM:** Various positions in Finance
- MS in Business Management, HEC Paris, BA Economics Paris University.



**Kader  
HIDRA**

**Chief Financial  
Officer**

**Financial markets expert**

- **CITEGESTION (EDF):** CEO of a digital start-up specialized in asset management and software development for Smart Cities
- **EDF:** Investor & Markets Director (Head of IR)
- **MORGAN STANLEY:** Utilities & Clean Energy Specialist Equity Sales
- **BERENBERG:** Utilities & Clean Energy Specialist
- Printing & Packaging Engineer (Ecole Polytechnique Grenoble), MBA from Duke University (Fuqua Business School).



**Prof. Alain  
MARTY**

**Chief Scientific  
Officer**

**International expert in enzymology and biological processes**

- **INSA** Institut National des Sciences Appliquées, Toulouse : Professor and Head of a research group
- **AERES** Agence d'Evaluation de la Recherche et de l'Enseignement Supérieur and **ANR** Agence Nationale de la Recherche: Evaluator (France's National Education Research Agencies)
- PhD in Biology, Biochemical Engineer, University of Toulouse



# Our Values

Our corporate culture focuses on 4 strong pillars shared by our employees and our partners.

**RESPECT for people:** Our employees are our most precious assets. At Carbios, we aim to respect people in their diversity and ensure an ideal, stimulating work environment. The key importance of respect at Carbios also concerns the integrity of our words and actions with our partners.

**COMMITMENT for the Planet:** By proposing sustainable solutions to rethink the end-of-life of plastic materials and textiles, Carbios shows its commitment to protecting the environment and its desire to support a Circular Economy that benefits future generations.

**INNOVATION benefiting industrial reality:** Thanks to high level scientific research combining for the first time the world of enzymology and plastics, we innovate every day to be able to offer sustainable and industrial solutions that address the major environmental and societal challenges of our time.

**AGILITY serving performance:** The agility of our teams along with the diversity of their expertise is one of Carbios' major strengths enabling us to provide the best in innovation to our partners.





# CARBIOS

Enzymes powering the Circular Economy

Carbios SA - Biopôle Clermont-Limagne -  
3 rue Emile Duclaux - 63360 St-Beauzire, France. N° SIRET: 53153022800042  
Tel: +33 (0)4 73 86 51 76 - Email: [benjamin.audebert@carbios.fr](mailto:benjamin.audebert@carbios.fr)

Crédit: Carbios / Carbiolice / AllContent / Unsplash.com