

# NEWS RELEASE



## LANZATECH, TOTAL AND L'ORÉAL ANNOUNCE A WORLDWIDE PREMIERE: THE PRODUCTION OF THE FIRST COSMETIC PLASTIC BOTTLE MADE FROM INDUSTRIAL CARBON EMISSIONS

**Clichy, 27<sup>th</sup> October 2020** – Through their innovative partnership, LanzaTech, Total and L'Oréal have premiered the world's first sustainable packaging made from captured and recycled carbon emissions. The successful conversion process takes place in three steps:

- **LanzaTech** captures industrial carbon emissions and converts them into ethanol using a unique biological process.
- **Total**, thanks to an innovative dehydration process jointly developed with IFP Axens, converts the ethanol into ethylene before polymerizing it into polyethylene that has the same technical characteristics as its fossil counterpart.
- **L'Oréal** uses this polyethylene to produce packaging with the same quality and properties as conventional polyethylene.

It is a technological and industrial success proving that industrial carbon emissions can be used to produce plastic packaging. This world first demonstrates the commitment of the three partners to the development of a sustainable circular economy for plastics and paves the way for new opportunities for the capture and re-use of industrial carbon emissions.

The partners now intend to continue working together on scaling the production of these sustainable plastics and look forward to working with all those who want to join them in committing to the use of these new sustainable plastics.

**LanzaTech CEO Jennifer Holmgren** said: *"This partnership is based on a shared goal of creating a cleaner planet for everyone. We are grateful to both L'Oréal and Total for their commitment to reducing the carbon intensity of their activities. Together, we can reduce the carbon footprint of packaging by converting carbon emissions into useful products, making single-use carbon a thing of the past."*

**Senior Vice President Polymers, Total, Valérie Goff** announced: *"This partnership is an excellent example of collaboration between industrial firms in developing the plastics of the future produced from recycled carbon and meets a strong demand from our customers. The development of this new pathway of valuing industrial carbon emissions also contributes to the Group's commitment to get to net zero in Europe by 2050."*

**Jacques Playe L'Oréal Packaging & Development Director, L'Oréal**, said that *"L'Oréal is constantly improving the environmental footprint of its packaging. With this innovation converting carbon emissions into polyethylene, we aim to develop new sustainable packaging solution. We have the ambition to use this sustainable material in our bottle of shampoo and conditioner by 2024 and we hope other companies will join us in using this breakthrough innovation."*

### **About LanzaTech**

Carbon recycling company, LanzaTech is a global leader in gas fermentation, making sustainable fuels and chemicals via biological conversion of waste carbon emissions, including industrial off-gases; syngas generated from any biomass resource (e.g. municipal solid waste), organic industrial waste, agricultural waste); and reformed biogas. LanzaTech's expertise in fermentation scale up, reactor design, machine learning and synthetic biology has enabled the company to commercialize its recycling process and demonstrate production of over 100 different chemicals. With global investors and partners, LanzaTech has a pipeline of commercial projects around the world and is working across the supply chain to provide novel circular solutions to mitigate carbon by producing consumer goods that would otherwise come from fresh fossil resources.

Founded in New Zealand, LanzaTech is based in Illinois, USA and employs more than 170 people, with locations in China, India and Europe.

More information: [www.lanzatech.com](http://www.lanzatech.com)

## About Total

Total is a broad energy company that produces and markets fuels, natural gas and electricity. Our 100,000 employees are committed to better energy that is more affordable, more reliable, cleaner and accessible to as many people as possible. Active in more than 130 countries, our ambition is to become the responsible energy major.

## About L'Oréal

L'Oréal has devoted itself to beauty for over 100 years. With its unique international portfolio of 36 diverse and complementary brands, the Group generated sales amounting to 29.87 billion euros in 2019 and employs 88,000 people worldwide. As the world's leading beauty company, L'Oréal is present across all distribution networks: mass market, department stores, pharmacies and drugstores, hair salons, travel retail, branded retail and e-commerce.

Research and innovation, and a dedicated research team of 4,100 people, are at the core of L'Oréal's strategy, working to meet beauty aspirations all over the world. L'Oréal sets out ambitious sustainable development goals across the Group for 2030 and aims to empower its ecosystem for a more inclusive and sustainable society.

More information: <https://mediaroom.loreal.com/>

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This press release may contain forecast information. While the Company believes that these statements are based on reasonable assumptions as of the date of publication of this press release, they are by nature subject to risks and uncertainties which may lead to a discrepancy between the actual figures and those indicated or suggested in these statements."

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