

# Future CCOs

People. Planet. Progress.



## Case Study

### Reducing Scope 3 Emissions through Product Innovation

Assistant Manager, Science Based Targets  
Global Corporate Citizenship & Sustainability  
ACCO Future CCOs Fellow (January 2021-January 2022)  
The Estée Lauder Companies



## About the Author

*From January 2021 to January 2022, I served as a fellow in the Association of Climate Change Officers' (ACCO) Future CCO's Fellowship Program. I was assigned to complete my fellowship with the Climate team in the Global Corporate Citizenship and Sustainability (GCCS) function within The Estée Lauder Companies (ELC). As a fellow at ELC, I reported to Ran Tao, Director of Sustainability. My fellowship was designed to assist ELC with developing strategies around reducing greenhouse gas (GHG) emissions associated with our raw materials and packaging so that the company could meet its science-based targets (SBTs) by 2030. This process included peer company benchmarking, researching low-carbon materials and manufacturing processes, and building the Product Innovation Pillar within GCCS which engages key stakeholders across the Research and Development (R&D), Packaging and Procurement teams in creating raw material and packaging emissions reduction strategies. This pillar is now embedded in ELC's strategy to achieve their SBTs. This case study shares the process of creating the Product Innovation Pillar, key stakeholders involved, and potential next steps for ELC as recommended by the pillar. The case study is written from my perspective as an ACCO fellow on the ELC team. Content is based on my research, experiences, and observations as well as published historical accounts.*

## About ACCO and the Future CCOs Post-Graduate Climate Fellowship Program

The Future Climate Change Officers Fellowship Program (Future CCOs) is designed to connect masters-level graduates with employer organizations seeking talented climate change practitioners. Centered on this professional talent pool, the program is establishing a professional track for graduates pursuing opportunities in climate change leadership.

The Association of Climate Change Officers is a 501(c)(3) non-profit membership organization for executives and officials worldwide in industry, government, academia and the non-profit community. ACCO's mission is to define, develop and support the functions, resources and communities necessary for effective organizational leadership in addressing climate-related risks and opportunities. For more information about ACCO, please visit <http://www.ClimateOfficers.org>.



## About the Estée Lauder Companies

The Estée Lauder Companies (ELC) is a global leader in prestige beauty, offering makeup, skin care, hair care and fragrances through a diverse portfolio of brands. For years, ELC has seen ESG not only as a business imperative for mitigating potential harms, but also for maximizing its potential to grow and thrive for decades to come. As ELC continues to embed ESG into the company, it is focusing on areas that are most important to its unique set of stakeholders, including Climate. Currently, a major focus in achieving sustainability goals is addressing climate change. In 2020, Quantis<sup>1</sup>, an organization that guides other organizations to define, shape and implement intelligent environmental sustainability solutions, performed an analysis of the beauty industry's annual GHG emissions. Though there were some data gaps, Quantis estimated emissions across the industry's value chain. Quantis estimated that the beauty industry contributes between 0.5%-5% of total global GHG emissions annually,<sup>2</sup> and raw materials and packaging were estimated to amount to 30% of the value chain footprint.

Despite the various challenges on the path of global emissions reductions, companies that center sustainability in their business model can gain from the following five key benefits:

- **Business resilience:** In 2020, a Financial Times study found that six out of ten companies that integrated sustainability into the business could better anticipate risks to their supply chains and, thus, outperformed their peers over the last ten years.<sup>3</sup>
- **Market opportunities:** The Standard Charter identified a \$10-trillion investment opportunity for three Sustainable Development Goals related to water and sanitation, clean energy, and infrastructure. Accenture estimates a \$4.5-trillion investment opportunity in transitioning to a circular economy in which materials constantly flow in a 'closed loop' system rather than being quickly discarded.<sup>3</sup> Additionally, businesses that manage their climate risks tend to have an 18% higher return on investment (ROI) than those that do not. Furthermore, companies that disclose emissions have a 67% higher ROI than companies that do not.<sup>4</sup>
- **Employee satisfaction:** Sustainability is of increasing importance for employee workplace choice, and companies that prioritize sustainability tend to attract top talent. Generation Z and Millennial employees will make up roughly 55% of the U.S. workforce in 2025, and, according to Boston Consulting Group, more than two-thirds of Millennials expect purpose-driven objectives in their companies and individual roles.<sup>3</sup>
- **Consumer acquisition and retention:** Consumers are increasingly looking for sustainability in their purchases. The Edelman Trust Barometer found that about 86% of consumers say they are likely to purchase from purpose-driven companies.<sup>3</sup>
- **Investor values/relationships:** Millennials are choosing to invest in sustainability-driven companies at a rate twice that of the average investor. Bank of America forecasts that Millennials could invest up to \$20 trillion in sustainability directed investments in the United States in two to three decades.<sup>3</sup>



## Transforming the Typical Business Model of a Beauty Company

ELC launched in 1946 after Estée Lauder took a beauty product development passion she discovered through her uncle and began selling skin care and makeup in beauty salons. Today, ELC is a global company with a global footprint.<sup>5</sup> The large global reach and extensive supply chain of ELC has presented challenges in sustainability and GHG emission levels. Figure 1 shows the typical lifecycle of beauty products (blue arrows) with potential areas of improvement in climate impact (outlined boxes).

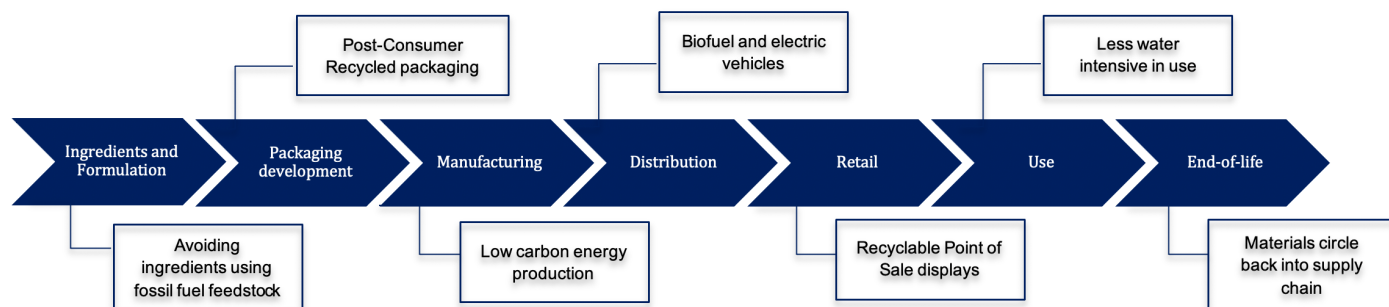


Figure 1: Typical cosmetic product lifecycle with potential areas of improvement in climate impact<sup>2</sup>.

Raw material and packaging emissions are typically associated with their production process, and both may use fossil fuels as starting materials. Synthetic butylene glycol, as an example of a common cosmetic ingredient, requires more energy than plant-based butylene glycol, in many cases, due to its increased reliance on natural gas.<sup>6</sup> The burning of fossil fuels is the leading cause of climate change.<sup>7</sup> These raw material challenges, which contribute to increased global GHG emissions, have pushed major industry players to set ambitious goals around low-carbon raw materials and manufacturing processes in their product inventory. Packaging can also be fossil fuel dependent. Typical beauty product packaging uses a high amount of virgin plastic, a fossil fuel byproduct<sup>8</sup>. Plastic bottles alone in beauty have a 28% share of the cosmetics packaging market.<sup>9</sup> Plastic became widely used due to its low cost, durability, and light weight<sup>2</sup>. However, moving towards more post-consumer recycled plastic helps lower plastic's climate impact by reducing plastic waste as well as transportation emissions due to plastic's low weight.

## ELC and Science-Based Targets

ELC worked with the Science Based Targets Initiative (SBTi), a partnership between CDP, the United Nations Global Compact, World Resources Institute (WRI), and the World Wildlife Fund for Nature (WWF), to set science-based targets (SBTs). SBTs provide a pathway for companies to reduce GHG emissions in line with climate science conducted by a third party.<sup>10</sup> ELC's submitted targets went through an initial screening and multiple rounds of review by SBTi's Target Validation Team to ensure targets aligned with SBTi criteria. A Steering Committee gave ELC final target approval<sup>11</sup>. The targets are:

- **Scope 1 and 2** (Direct operations. Scope 1 includes the company's owned and controlled resources. Scope 2 includes indirect GHG emissions associated with the purchase of electricity, steam, heat, or cooling<sup>12</sup>) – Commit to reduce absolute Scope 1 and 2 GHG emissions by 50% by 2030 from a 2018 Base Year.<sup>6</sup>



- **Scope 3** (Indirect operations. All resources that are not owned or controlled by the company, outside of Scope 1 and 2<sup>13</sup>) – Reduce scope 3 GHG emissions intensity per unit revenue by 60% by 2030 from a 2018 base year.<sup>6</sup>

There were two types of targets that ELC could consider upon creating its SBT: absolute targets and intensity targets. Absolute targets refer to the total quantity of GHG being emitted while intensity targets compare the amount of emissions to some unit of economic output.<sup>14</sup>

Scope 3 emissions, the largest portion of ELC's GHG footprint are considered the most difficult to reduce as they are not part of the direct operations of the company. Therefore, ELC has less influence and control over these emissions. The large footprint of Scope 3 emissions results from using primarily third-party sourcing, manufacturing, and logistics companies as well as product use and disposal phases. Categories covered in the current Company Scope 3 SBT include purchased goods and services, capital goods, upstream transportation and distribution, and business travel as they are the highest contributors to ELC's overall emissions. The process for identifying the Scope 3 categories to be included in the SBT followed the guidance of the SBTi.

To meet our SBTs, ELC created several projects to help achieve these goals (see Table 1.)

Table 1: Climate milestone achievements for The Estée Lauder Companies <sup>6</sup>				
Goal	FY 21 Progress	Target	Progress Notes	Status
Reduce absolute Scope 1 and 2 greenhouse gas (GHG) emissions 50% by 2030 from a 2018 base year.	59% Scope 1 and 2 reduction	50% reduction  (FY 2030 target)	In fiscal 2021, ELC continued to make progress towards our 2030 target through a portfolio of climate solutions.	On track
Reduce Scope 3 GHG emissions from purchased goods and services, upstream transportation and distribution and business travel 60% per unit revenue by 2030 from a 2018 base year.	Fiscal 2021 data available in calendar year 2022	60% per unit revenue  (FY 2030 target)	In fiscal 2021, ELC engaged with suppliers through CDP Supply Chain and established an internal governance structure to oversee emissions reduction.	On track
In fiscal 2020 and fiscal 2021, we achieved carbon neutrality and sourced 100% renewable electricity globally for our direct operations, reaching the target we set on joining RE100.				

ELC's work towards reducing emissions to meet our SBTs is ongoing. The Product Innovation Pillar was designed to continue finding and managing opportunities in emissions reductions for raw materials and packaging.



## Climate-Related Opportunities: The Product Innovation Pillar

ELC identified three key focus areas for substantial emissions reductions after analyzing ELC's Scope 1, 2, and 3 emissions data: Operations Sustainability, Supplier Engagement, and Product Innovation. These focus areas were designated as 'Pillars' that were overseen by key stakeholders who would create and track emissions reduction interventions for each Pillar while also researching future potential interventions alongside the GCCS Climate team. The Product Innovation Pillar was then set to launch in January 2022.

Initial interventions for the Product Innovation Pillar were identified by first collecting information on new and existing projects in the Research and Development (R&D) and Packaging teams within ELC to quantify emissions reductions behind them. Peer benchmarking was conducted simultaneously based on similarity to ELC's business model and publicly set GHG emissions-reduction projects around raw materials and packaging.

The Product Innovation Pillar included input, collaboration, and partnership from colleagues from R&D, Packaging, and Procurement teams who focus on sustainability. A meeting cadence has been established to connect these stakeholders on pillar goals and interventions that pertain to their work and to update the group on progress, challenges, and proposals for new interventions. The Product Innovation Pillar consolidates the updates from the meetings to present to higher level management so they can prioritize interventions based on feasibility, scale, and cost.

The Product Innovation Pillar is currently prioritizing governance relating to data sources and low carbon material and manufacturing processes for raw materials and packaging. The breakdown for these interventions is as follows:

### Supplier Data for GHG Emissions Reduction – Raw Materials

ELC joined CDP in fiscal year 2021. CDP is a nonprofit that runs a global disclosure reporting system to provide information to investors about companies' environmental impacts. CDP also enables companies to track the impacts of their suppliers through a supply chain-specific questionnaire. Upon joining CDP Supply Chain, ELC requested that more than 200 suppliers respond to the CDP Climate questionnaire. These suppliers contribute significantly to our total spend. This supplier-provided data can help us calculate a portion of our Scope 3 footprint and identify potential areas of opportunity and collaboration, particularly when addressing the raw material and packaging portion of ELC's footprint. Additionally, we hosted a session that included representatives from nearly 400 suppliers to review updates made to improve our sustainability data collection in our supplier specification system.<sup>6</sup>

### Lower Carbon Raw Materials

During my year in ELC, the company launched the Green Score program, which incorporates green chemistry principles in product design. The Green Score was created through collaboration with experts in the field. The approach allows formulators to quantify product performance from the lens of green chemistry, focusing on human health, ecosystem health and the environment.<sup>6</sup>



One example of the many ingredients assessed by the Green Score that are of focus in the Product Innovation Pillar is bio-based butylene glycol (BG). BG is a clear, odorless liquid that helps ensure product stability over a wide range of temperatures, improves application, and provides moisturizing properties. BG is used widely across our product portfolio, in both skin care and makeup products. In many cases it requires more energy to create synthetically derived BG than bio-based BG, due to increased reliance on natural gas during production processes. Synthetic BG also utilizes petroleum-based solvents, while bio-based BG is primarily derived from natural ingredients, such as corn. ELC's supplier for bio-based BG has created a one-step fermentation process that converts renewable plant sugars into a high-purity, bio-based BG which is being incorporated into ELC products<sup>6</sup>

## Lower Carbon Packaging

The GCCS Climate team started identifying emissions reduction opportunities in current Packaging team projects, namely the ELC 5R goals which aim for ELC packaging to fall under one or several of the following categories: recyclable, refillable, reusable, recycled, or recoverable. Along with the current packaging guidelines, estimated associated GHG emissions of various product-packaging formats are considered as part of our sustainability efforts<sup>6</sup>.

One example of the work being done in sustainable packaging is Clinique became the first prestige beauty company to launch a partnership with [Roctool](#), a provider of unique molding technology. The technology enables mono-material packaging without the need for secondary decoration, which also reduces scrap or waste reduction by 10% - 15% in the production process while maintaining the high quality of the packaging material. This technology is first being used for Clinique's Clarifying Lotion bottles and will first roll out across European markets while ELC plans to scale the technology globally across its brand portfolio.<sup>15,16</sup>

## Next Steps for Implementation

At the launch of the Product Innovation Pillar, the team introduced pillar goals and presented the current and proposed pillar interventions based on internal projects, benchmarking and market research. Key stakeholders also had an opportunity to provide feedback on the proposed interventions and suggest some of their own. Overall, the team suggested prioritizing pillar interventions based on the resources needed to fulfill them, feasibility and cost of implementation and data availability. The meeting concluded by identifying the following next steps:

- Connect ELC brand sustainability leads to the Product Innovation Pillar to align their climate goals with the interventions. Interventions may change based on feedback from brand sustainability leads.
- Begin discussions on tracking emissions reductions to understand our status for progress towards SBT.
- Research additional raw material and packaging initiatives that can fill any gaps remaining to meet SBT. Understand their emissions reduction impact, scale, feasibility of implementation, and cost.
- Continue supporting data work with CDP.





## Conclusion

Business as usual, when considering the climate crisis, will not advance the business community's role in limiting global warming to 1.5°C. ELC is committed to doing its part by achieving its SBTs. By doing so, it can also create business resilience and attract top talent and encourage supplier climate action. Current solutions that ELC is implementing show progress, but the company can consider additional solutions to further meet its SBT and show climate leadership. Some of these solutions include:

- Increasing the use of bio-based materials with lifecycle analyses that verify their lower impact.
- Incorporating captured emissions from carbon capture technology into the products themselves.
- Improving recyclability and circularity of packaging and reducing product weight where possible.
- Increasing number of suppliers reporting to CDP.

Future development of the Product Innovation Pillar may require combining efforts in Product Innovation with the Supplier Engagement Pillar, which creates strategies around working with suppliers to meet climate goals. Our raw material and packaging footprint could be reduced if suppliers reduce their own emissions. Finally, as interventions are developed, all brands must be included into the decision-making process for cohesion across the enterprise. The GCCS Climate team also will work with the Communications team to educate consumers on how ELC is reducing GHG emissions to address climate change.



## References:

1. Quantis, [Online]. Available: <https://www.climate-kic.org/partners/quantis/#:~:text=Quantis%20guides%20top%20organizations%20to,useful%20tools%2C%20and%20credible%20communications.>
2. Quantis, “Make Up the Future: Levers of Change for a Sustainable Cosmetics Business”, 2020.
3. K. Lang and L.J Deluca, “Ceres Roadmap 2030”, Ceres, 2020.
4. N. Labutong, V. Hoen, “How can companies address their scope 3 greenhouse gas emissions?” CDP, 2018.
5. The Estée Lauder Companies, “Global Operations”, [Online]. Available: <https://www.elcompanies.com/en/who-we-are/global-operations#/Offices-Manufacturing-Research/estee-lauder-companies>.
6. The Estée Lauder Companies, “Beauty Inspired, Values Driven: Our Fiscal 2021 Social Impact and Sustainability Report”, [Online]. Available: [https://media.elcompanies.com/files/e/estee-lauder-companies/universal/our-commitments/2021-ss-report/elc-socialimpact-sustainability-report-fy21.pdf?\\_ga=2.44279974.348751554.1640186676-1488518043.1610547839&\\_gl=1\\*\\_o842jl\\*\\_ga\\*MTQ4ODUxODA0My4xNjEwNTQ3ODM5\\*\\_ga\\_V9QZ4PSDRY\\*MTY0MDE5MzY4MTY4MjY4LjE2NDExOTMzODYyNjA.](https://media.elcompanies.com/files/e/estee-lauder-companies/universal/our-commitments/2021-ss-report/elc-socialimpact-sustainability-report-fy21.pdf?_ga=2.44279974.348751554.1640186676-1488518043.1610547839&_gl=1*_o842jl*_ga*MTQ4ODUxODA0My4xNjEwNTQ3ODM5*_ga_V9QZ4PSDRY*MTY0MDE5MzY4MTY4MjY4LjE2NDExOTMzODYyNjA.)
7. United States Environmental Protection Agency, “Causes of Climate Change”, [Online]. Available: <https://www.epa.gov/climatechange-science/causes-climate-change>
8. B. Bauman, “How plastics contribute to climate change”, Yale Climate Connections, 2019
9. J. Drobac, “Green Face of Packaging – Sustainability Issues of the Cosmetic Industry Packaging”, MATEC Web of Conferences, 2020.
10. Science Based Targets Initiative, “How it Works”, [Online]. Available: <https://sciencebasedtargets.org/how-it-works>.
11. Science Based Targets Initiative, “Target Validation Protocol”, [Online]. Available: <https://sciencebasedtargets.org/resources/legacy/2019/04/target-validation-protocol.pdf>.
12. United States Environmental Protection Agency, “Scope 1 and Scope 2 Inventory Guidance”, [Online]. Available: <https://www.epa.gov/climateleadership/scope-1-and-scope-2-inventory-guidance>.
13. United States Environmental Protection Agency, “Scope 3 Inventory Guidance”, [Online]. Available: <https://www.epa.gov/climateleadership/scope-3-inventory-guidance>.
14. T. Herzog, et. al., “WRI Report – Target: Intensity: An Analysis of Greenhouse Gas Intensity Targets”, World Resources Institute, 2006.
15. The Estée Lauder Companies, “Beauty Inspired, Values Driven: Our Fiscal 2022 Social Impact and Sustainability Report”, [Online]. Available: [https://media.elcompanies.com/files/e/estee-lauder-companies/universal/our-commitments/2022-si-s-report/sis-report-2022.pdf?\\_ga=2.86744728.1695730166.1670862521-1400387885.1649879743&\\_gl=1\\*\\_jylzdp\\*\\_ga\\*MTQwMDM4Nzg4NS4xNjQ5ODc5NzQz\\*\\_ga\\_V9QZ4PSDRY\\*MTY3MDg2MjUyMS4zMS4xLjE2NzA4NjI3MjAuNjAuMC4w](https://media.elcompanies.com/files/e/estee-lauder-companies/universal/our-commitments/2022-si-s-report/sis-report-2022.pdf?_ga=2.86744728.1695730166.1670862521-1400387885.1649879743&_gl=1*_jylzdp*_ga*MTQwMDM4Nzg4NS4xNjQ5ODc5NzQz*_ga_V9QZ4PSDRY*MTY3MDg2MjUyMS4zMS4xLjE2NzA4NjI3MjAuNjAuMC4w)
16. The Estée Lauder Companies “Clinique and The Estée Lauder Companies Leverage Sustainable Packaging Technology With Roctool”, [Online]. Available: <https://www.elcompanies.com/en/news-and-media/newsroom/press-releases/2021/9-15-2021>.