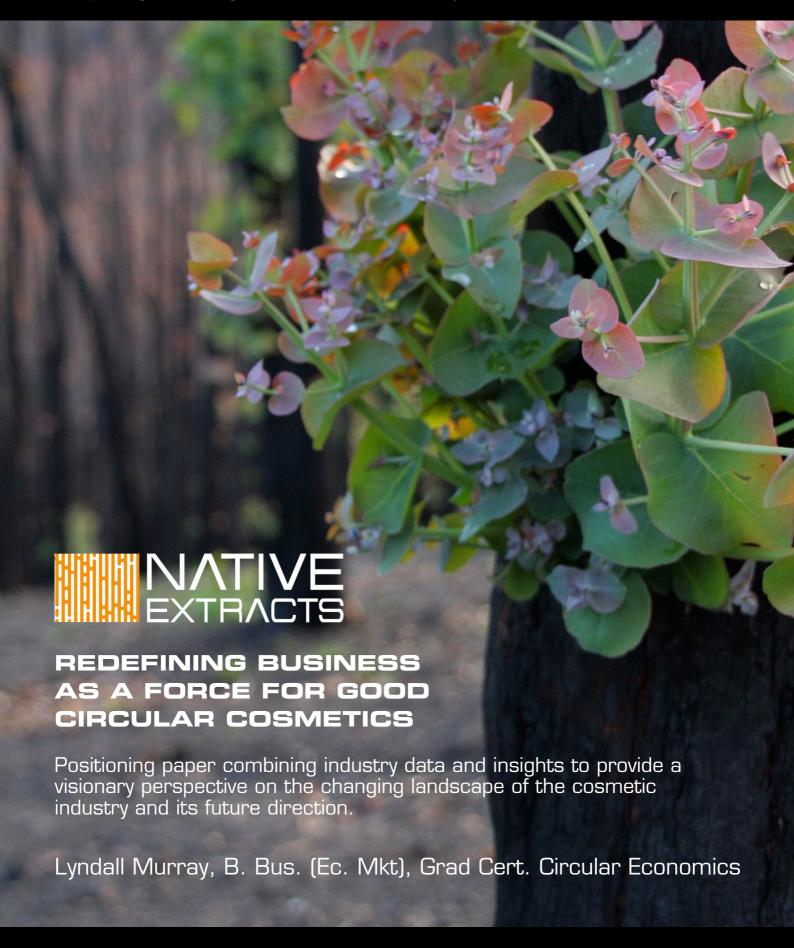
#### **INSIGHT PAPER**

Preparing for the gen-next Circular Beauty demands



"Moving to a circular economy presents a trillion-dollar opportunity for businesses around the world, by unlocking new value and harnessing innovation..."

Dame Ellen MacArthur

# REDEFINING BUSINESS AS A FORCE FOR GOOD

The beauty industry's industrial linear model has had significant environmental and socio-economic impacts. From child labour in the mica-mining industry in Northern India to plastic pollution and beyond.

WRITTEN BY LYNDALL MURRAY

B. BUSINESS (EC. MKT), GRAD CERT. CIRCULAR **ECONOMICS** 

First we must start with WHY?

Why do we need to make conscious choices as individuals & in business?

Recently, I've heard climate change referred to as a threat. But, climate change is here as individuals & communities we are living in the trenches of the climate crisis. Just ask the survivors of the Northern Rivers in NSW Australia floods, the Alberta Canada wildfires or the Bangladesh floods in India to name a few.

This is the true cost of climate change. It is here. It is because of events like this that we need to be responsible not only as consumers - where we have the power to vote for the kind of future, we want every day with our wallet.

But, also as growers, business owners, ingredient suppliers, manufacturers, and brands together we can be part of the solution.

Pope Francis has called the global failure to act on climate change "a brutal act of injustice toward the poor," while DiCaprio wisely pointed out "the environment and the fight for the world's poor are inherently linked." Philip Alston, the UN rapporteur, said in 2019 that a "climate apartheid" is right around the corner.



Image:Bangladesh floods, 2022

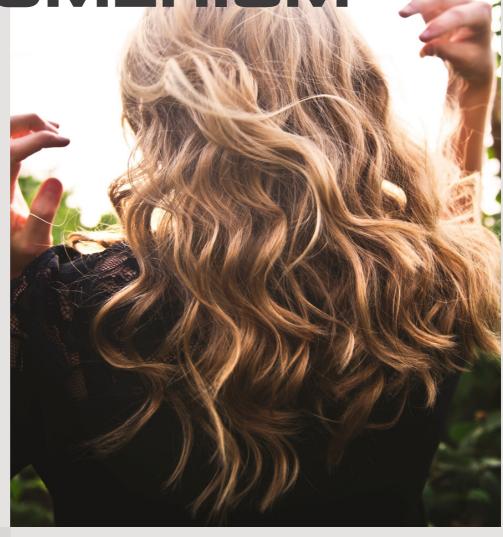
Climate change disproportionately affects poor communities, amplifying existing social and economic inequalities. Limited resources, dependence on climatesensitive sectors, displacement, health impacts, and limited political power contribute to the heightened vulnerability of the poor. These communities often lack the means to cope with extreme weather events, experience income loss, face health risks, and struggle to adapt or relocate. Addressing climate change requires considering the needs of marginalised communities, implementing equitable policies, and empowering them to participate in climate action, ensuring a more just and sustainable future.

CONSCIOUS
CONSUMERISM

We need to be part of the solution both as consumers and as business owners. This is a trend that is rising in conscious consumerism, via "Circular Beauty." Circular beauty is more important than ever because we are in a new era where product performance is not merely judged by its beauty or health promoting properties, but also for its contributions to the environment and humanity at large.

Circular Beauty is an emerging market, anticipated to reach US\$ 4.2 Billion by the end of 2032, with a CAGR of 5.8% over the last year, compared to the overall beauty market CAGR of 3.8% (BeautyPackaging.com).

The nuances of Circular Beauty make it challenging, yet full of opportunities. Although it can be considered a pillar of sustainability, it contains its own suite of variables, from reducing raw materials or keeping them in use, to purposely minimizing waste and expanding the life cycle of products.



Whilst there is yet to be a truly completely sustainable product, one thing is clear - There is a demand for 'better'.

A significant portion of consumers, more than one-third, prioritise beauty brands that embrace eco-sustainable practices and values. Our exploration will demonstrate that circular beauty not only benefits the environment but also generates positive social impacts for individuals throughout the supply chain.

Further, a survey researching consumer behavioural trends of the gen-next consumer in 2019 indicated 95% of respondents would change their purchase decision if they new the band did good for people & the planet, this continues to add weight to the growing demand for brands who sell products that do the right thing.

People are buying based on their own personal values, and they're looking for values aligned brands to buy from. The once niche conscious consumer is now pushing into mainstream markets.

1/3

Nearly 1 in 3 consumers claimed to have stopped purchasing products from certain brands due ethical or sustainability-related concern.

97% of consumers want beauty brands to be more transparent.

97%

1/3

Over 1/3 of consumers choses beauty & personal care brands that have environmentally sustainable practices & values.

86% of consumers want more transparent information about ingredient supply. 86%

Source: The Upcycled Beauty Company Zero Waste Beauty Report 2022-2023 (source: The Upcycled Beauty Co.)

#### Change is a must

The current state of ingredient and cosmetic manufacturing within the cosmetic industry significantly contributes to negative environmental and social impacts, posing challenges for conducting comprehensive lifecycle analyses of products. The multifaceted nature of the industry necessitates individual ratings for each category, as every aspect has its own distinct impact that must be minimized.

Conventional ingredients often originate from farms employing synthetic pesticides, which adversely affect both growers and the soil. When ingredients are sourced from distant locations without direct producer relationships, there is a risk of exploitation and inhumane working conditions.

Moreover, these farms can disrupt local ecosystems and compromise soil health. In the case of wild-harvested ingredients, it is imperative to assess the use of sustainable practices to prevent over harvesting and maintain ecological balance.

Considering the environmental aspect,

# Agriculture alone contributes 11% of global CO2 emissions

SOURCE: (EPA.GOV)

prompting inquiries into farming methods, harvesting techniques, and transportation. The mode of transportation, whether by sea or air, significantly impacts the carbon footprint, with sea transportation generally being more environmentally favorable.

At the manufacturing level, it is essential to account for waste generation, water usage, and energy consumption. These factors introduce complexity into the assessment of a product's lifecycle impact.

These examples represent only a fraction of the considerations along the lifecycle of cosmetic products. However, by focusing on the specific impact of ingredients, a more detailed and granular view emerges. This underscores the need for meticulous evaluation of sourcing, manufacturing, and transportation practices to minimise environmental harm and uphold ethical standards throughout the cosmetic industry.

#### **Embracing circularity**

The significance of circularity in the cosmetic industry becomes evident when considering that one third of personal care consumers attribute the highest responsibility for environmental protection to manufacturers (Uhlenbrock et al., 2018, p. 3).

Furthermore, cosmetics utilise the largest share of natural plant-based extracts, surpassing pharmaceuticals by double and agrochemicals by 200 times (Uhlenbrock et al., 2018, p. 3, see table 1).

Category	Agrochemicals	Cosmetics	Aroma, Flavours and Nutrition	Pharma
Market volume	1 Billion USD	200 Billion USD	10 Billion USD	107 Billion USD (forecast 2017) [21]
Market growth	Double digit annual growth rate	Double digit annual growth rate	Double digit annual growth rate Market for nutrition additives decreases Market for aromas grows	Double digit annual growth rat Decline in prescription market Growth in over-the-counter market
Challenges	Market dominated by SMEs as well as global players Small volume/low cost products bulk High cost/low volume niche products	Significant amount of products with natural claims but up to 75% synthetic ingredients: No uniform and binding standards for natural, fair-trade, organic labels	Low cost products (in the order of 1–10 €/kg) Many products with small volumes (100–1000 kg/a)	Most products are OTC Only few blockbusters Restrictive regulatory hamstringed R&D
Medium-term	Efficient total process design for SMEs: Integrate process intensification. Methods for SMEs and scale-up of infrastructure to fully integrated	Efficient ways of finding new natural ingredients [20,24].	Apply and adopt more often scCO <sub>2</sub> , bio-based solvents *, PHWE Biomass valorization, e.g., caret brownii.	Speed up of development of borbal raw cell fermentation by oncice [23]* Process Analytical Technology for inline-analysis of extraction processes: Parametric defined release at manufacturing of herbal raw extracts.* Homogeneity at production of

Table 1: Market Volume of plant extracts by Industry (source: Uhlenbrock et al, 2018, p. 3)

The eco-impacts of cosmetics are well-known, and consumer expectations are clear. Manufacturers are being held accountable for their actions, and there is a growing market demand for circular practices

As a manufacturer, it is essential to actively engage with ingredient suppliers and push for circular charters to meet these consumer expectations and contribute to a sustainable future, both for the planet and for business growth.

Embracing circularity is not only a shared responsibility but also a strategic move to ensure future sales and meet the evolving demands of conscious consumers.

#### Circular sourcing

Circular sourcing is crucial for ensuring the future supply of ingredients and preserving natural capital by promoting the use of renewable resources, optimising resource utilisation, and minimising negative externalities through efficient systems (Hopkinson, Zils, Hawkins & Roper, 2018, p. 71-72).

With finite resources becoming increasingly expensive and limited, adopting circular practices not only enhances a company's competitive advantage but also opens up new opportunities, potentially leading to job creation.

By embracing circularity, businesses can position themselves strategically to thrive in a resource-constrained world while contributing to sustainability and economic growth (Hopkinson, Zils, Hawkins & Roper, 2018, p. 71-72).

### The aesthetic of eco ethics

The eco-impacts of cosmetics are well-known, and consumer expectations are clear. Manufacturers are being held accountable for their actions, and there is a growing market demand for circular practices

They are introducing the manufacturers of their ingredients, the botanical growers involved, and emphasizing the individuals behind the supply chain, rather than just the physical locations.

**Image** 

From seed to skin connecting brands to the ingredient source.

This shift reflects a growing aesthetic of eco-ethics, where consumers value transparency, traceability, and a deeper understanding of the ethical practices that underpin the products they choose.

## Transparency for greater circularity

Circular manufacturing for a manufacturer involves adopting a Product Life Cycle Assessment (LCA) approach, where the conceptualisation and design of products prioritise considering the end result. For natural plant-based products, this often entails considering how the product can contribute to enriching and nourishing the soil.

By prioritising transparency in production and sourcing,

NATIVE EXTRACTS as an ingredient manufacturer works with brands to connect the supply chain transparency & traceability of ingredients. From plant to product.

Initiatives like NATIVE EXTRACTS Grower Engagement Program aim to expand the network of botanical growers, empowering Indigenous communities and commercial growers to explore new markets and increase the value of their crops.



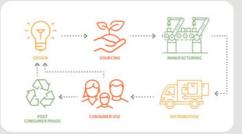


Figure 1: Cosmetics Product Life Cycle Source: Cosmetics Europe 2018, 7-8.

Retreatment Botanics was the first brand to proudly display the NATIVE EXTRACTS logo on their packaging, which set the growing trend later followed by the Colgate-Palmolive Skin Food Range, highlighting native Australian species and addressing the underrepresentation of First Nation peoples in the agricultural supply chain.

These partnerships aim to create awareness among consumers about the growers behind the ingredients and promote sustainability in the native agricultural industry.

In the pursuit of circularity, brands are driven by various motivations.

However, prioritising transparency and embracing circular practices emerges as a key factor in fostering brand loyalty. As highlighted by Todd (2004), "citizen brands" recognise that modern consumers expect brands and corporations to demonstrate strong business ethics and social responsibility, accompanied by a deep emotional commitment and sincerity (p. 92)

By aligning with these values, brands can effectively engage and resonate with the discerning expectations of today's empowered consumers.

To captivate change-hungry consumers, brands must emphasize the overall brand performance, going beyond the product itself. This entails supporting brand certifications like B-Corp, endorsing sustainability impact reports, and actively contributing to a better future. Research shows that a significant percentage of millennials, 80%, believe that eco-friendly purchases enhance their quality of life, and 75% are actively seeking greener changes in their homes and lifestyles (Riccolo, 2021, p. 133).

Therefore, adopting a forward-thinking approach aligns with consumer perception and preferences.

## Circular beauty for people

Whatever the incentive may be for a brand to choose "Conscious Extracts" over conventional extracts, there is so much potential to contribute positive changes beyond the planet, primarily for people. We prioritise sourcing wildharvested or commercially grown traditional Australian native or botanicals and strive to collaborate with First Nation whenever growers possible.

By building relationships and expanding their markets to include retail products and reach new markets beyond raw material suppliers, we exemplify this commitment.

A real world example is the DIRAMU Skincare brand and Lombadina Aboriginal Corporation's emerging Aadangool Range, both of which proudly feature our logo on their packaging.

This not only increases inclusion in an industry where Indigenous representation is less than 2%, but it also helps us identify new growing opportunities that can scale to meet future demand and support community growth.

Brands that prioritize inclusion and extend it across their value chain, including their suppliers, further demonstrate their commitment to social responsibility. Lia Neophytou, an Analyst at Global Data, highlights that consumers are increasingly seeking value-driven products that resonate with their individual personalities and lifestyles (GCImagazine.com).

**PALMOLIVE** 

QUANDONG PEACH

Circular Beauty brings benefits to consumers as well. One approach is "Custom Beauty," which offers made-toorder products to reduce waste from unused products resulting from overproduction. These customizable products combine multiple applications one multifunctional product, simplifying consumers' routines reducing the number of product bottles they need.

Another example is grown-to-order products like Haeckels' zero waste eye

ask, which is activated by water at home, thereby reducing the need for at-home shelf space and lowering freight costs (The Upcycled Beauty Company).

inclusion

## OURISHING & TURISING DY WASH CLEANSE + HYDRATE + RENEW WORKING WITH FIRST NATIONS GROWERS NATIVE (PH) PARABENS ( PHTHALATES @ SILICONES SÍ MINERAL OIL GLUTEN (# to Palmolive Pty Ltd 420 George St, Sydney NSW 2000, AU Colgate-Palmolive Ltd 45 Knights Rd, Lower Hutt. NZ ARTIFICIAL COLOURS 3075AUJA12 11:17

shelf space and lowering freig
Lia (The Upcycled Beauty Company).

Increasing inclusion inclusio

The incentive for brands to choose "Conscious Extracts" goes beyond the environmental impact and has the potential to create positive changes, primarily benefiting people. Through our sourcing of wild-harvested or commercially grown Australian native or traditional botanicals, we prioritise working with First Nation growers to expand their markets and bring their crops into retail products.

On a socio-economic level, sourcing from underrepresented populations and Indigenous communities has positive outcomes. Introducing growers to new markets outside of the traditional food space creates new opportunities,

#### Image

Colgate-Palmolve Skin Food Range: featuring NATIVE EXTRACTS logo. particularly in valorizing costly waste streams by converting them into upcycled ingredients.

In Australia alone, farmers lose \$2.84 billion worth of unsold produce annually (FAO. Food Wastage Footprint Report, 2013).

An illustrative example is the partnership between Palm Silage and the city of Phoenix, where 34,000 tons of palm fronds were transformed into livestock feed, reducing waste disposal costs and generating a \$10 million revenue business.

This circular solution not only provides highly nutritious feed but also benefits the municipality and the environment (Ellen MacArthur Foundation).

Growers not only benefit from new markets for their botanicals but also have the opportunity to move up the supply chain with value-added products.

An inspiring example is Dominic Smith, a South Australian First Nation grower, who started as a native river mint grower and expanded his crop offerings to various native botanicals. He has now founded DIRAMU, a native skincare brand, and initiated a mentoring program to support other young Indigenous entrepreneurs in his area.



Yuin man, Dominic Smith of Pundi Produce & Diramu.

#### Where to start?

Beginning with a product lifecycle assessment based on the principals put fourth by Dame Ellen MacArthur, the founder of the Ellen MacArthur Foundation.

It represents a framework for understanding and transitioning to a circular economy. The concept emphasises three key aspects; what we take, what we make and what we waste.



Product lifecycle considerations based on the Ellen MacArthur Foundation framework for transitioning to a circular economy.

#### 1. What we take

Based on the MacArthur Foundation model what we take refers to the extraction of resources from the natural environment to meet human needs and demands. It highlights the finite nature of resources and the importance of sustainable resource management.

When it comes to plant-based products, reducing biomass and utilising extraction technologies that require less plant matter are important considerations.

This helps minimise inputs and prevents over-harvesting, contributing to sustainability.

Additionally, using B-grade crop surplus for extraction instead of A-grade food quality produce helps reduce waste by repurposing visually imperfect nutrients that would otherwise go unused.

The concept of upcycling waste or byproducts is crucial for achieving circularity. By utilising plant materials that would otherwise be discarded, such as fruit skins and seeds, we can save agricultural land, reduce costs associated with wasted materials, and provide growers with a new income stream or higher value for their ess-than-perfect produce. Several brands, like Dr.Craft, O'right, UpCircle, and Kadalys, have already developed product ranges with repurposed ingredients, demonstrating this concept in action within the beauty industry.

Considering water consumption is also important, especially as it typically constitutes a significant portion of formulations. Questions to ask include the source of the water and the irrigation methods used for botanicals.

Choosing drought-resistant species and implementing water-wise practices like aquaponics can contribute to sustainable water usage.

Using NATIVE EXTRACTS as an example they go beyond considering eco-conscious harvest practices, and extend the framework to help address human impact addressing the underrepresentation of First Nations people in the supply chain of both native and non-native raw materials.

NATIVE EXTRACTS delivers on this by collaborating with start-ups to multinationals, focusing on traceability back to the source and incorporating this story into their marketing communications strategies.

By activating brand platforms and creating true supply chain transparency, consumers are empowered to support initiatives promoting First Nations inclusion through their purchasing decisions.

#### 2. What we make

Focuses on the production and consumption of goods. It encourages the design and manufacturing of products that are durable, repairable, and recyclable, minimising waste and extending the lifespan of products.

They are introducing the manufacturers of their ingredients, the botanical growers involved, and emphasizing the individuals behind the supply chain, rather than just the physical locations.

During the manufacturing and use phase of a product's life cycle, efficiency and resource usage play key roles. For ingredient manufacturing, NATIVE focuses

on streamlining processes in the factory, packaging, and transportation to minimize energy and resource consumption. We employ energy-efficient extraction methods that use accelerated processing, extreme pressure, and static cycles, reducina the energy required extraction. Offering Flexible Concentration Options enables bulk purchasing, reducing packaging and freight-related CO<sub>2</sub> emissions.

Concentrated and dry products offer solutions for formulators and contract manufacturers, as they reduce freight costs. However, not all formulations can be converted to dry options, requiring exploration of sustainable and water-wise alternatives.

Efficient manufacturing techniques maintain the integrity of natural molecules while enabling rapid production and scalability. Water usage in manufacturing is also considered, with NE utilising rainwater for its range of nearly 400 ingredients, reducing reliance on public water supplies.

NATIVE EXTRACTS strives for efficiency, sustainability, and water-wise practices throughout ingredient manufacturing, offering flexible concentration options and considering the integrity of natural molecules and water usage.



Image: NATIVE EXTRACTS 'in focus' lab review documenting extract efficiency & efficacy.

#### 3. What we waste

Consumer behaviour plays a significant role in waste management, including refillable packaging, packaging return for reuse, and recycling.

However, manufacturers also have a responsibility to educate consumers and provide opportunities for better choices. It is crucial for companies to transition to renewable and bio-based materials for product packaging, focusing on sustainable bioplastics derived from biomass instead of petroleum-based plastics.

Furthermore, reducing deforestation by using sustainable alternatives to tree-based products is essential (Cosmeticseurope, 2018, pp. 7-8).

As manufacturers, we believe it is our responsibility to create ingredients that enable consumers to access products that reduce waste throughout the supply chain, from sourcing to recycling.

At our factory, we prioritise recycling and composting, adhering to household standard waste collection practices. Extract by-products are clean, biodegradable, and either composted or sorted for collection.

There is evidence to suggest that biodegradable products and packaging made from herbal raw materials, whether in the form of a single compound or complex mixtures like extracts, are inherently better for the environment compared to synthetics (Uhlenbrock et al., 2018, p. 2).

Chemosynthetic compounds require special handling and disposal precautions, leading to increased costs and the potential contamination of water or soil.

In response to growing ecological alternative awareness, consumer packaging options to single-use are expected to increase. Studies show that approximately 30% of cosmetics purchasers are willing to pay more for products in ecological packaging, and a similar number of consumers are willing to stop purchasing products due to their harmful effects on the environment (Brdulak, 2022, p. 57).

Some of the alternative packaging options refillable include containers, biodegradable plant-based packaging made from inedible food waste (e.g., using popcorn and avocado pits to create plastic-like packaging, apple pulp for leather-like materials), dissolvable sachets for products like body wash, re-usable containers with multi-purpose functionality, reducing the size and amount of materials used (e.g., Amazon using less cardboard in their boxes), and incorporating recyclable materials. Additionally, package-less or "naked" products are gaining traction, exemplified by pioneers like Lush offering package-free shampoo bars and recent announcements by companies like P&G launching solid shampoo and conditioner products under their brands (Premium Beauty News).

By embracing these packaging alternatives, manufacturers can contribute to waste reduction and promote sustainable practices throughout the cosmetics industry.

## Circular for resilient brands

Circular manufacturing not only addresses climate change and provides natural solutions but also brings resilience to brands and strengthens the primary industry by creating opportunities for positive impact at the grassroots level. Examples include planting trees for each unit produced and engaging in mentoring and social impact projects. By offering consumers avenues for participation beyond their purchase, Impact Beauty becomes a circular concept, where end consumers actively contribute to the beginning stages.

From a brand perspective, showcasing the faces of farmers behind skincare products adds authenticity and aligns with Mintel's beauty forecast for 2023, which emphasizes the importance of authenticity for brands and influencers in a crowded marketplace (Yieldify). Focusing on natural brands also reinforces the narrative for healthy beauty perspectives, where transparent production processes mirror the ideals of natural beauty, celebrating uniqueness rather than conforming to an artificial ideal (Todd, 2004, p. 96).

In the primary industry, the eco-impact of circular manufacturing has positive socio-

economic effects. It assists growers by reducing their reliance on fragile supply chains (Ellen MacArthur, 2021).

At NATIVE, expanding our grower network and sourcing raw materials locally and from Indigenous growers opens up new opportunities for small businesses and rural communities. It also promotes eco-conscious growing practices like aquaponics.

Sharing NATIVE EXTRACTS research library, including phyto-compound analysis of extracts, enables growers to enter the beauty market and add value to their crops based on the nutritional qualities of their species. Over the past decade, working with rural growing groups has shown that introducing young entrepreneurs to the industry and mentoring young Indigenous skincare brands leads to significant job creation in their regions as they expand.

Through circular manufacturing, brands can foster authenticity, support local communities, and empower growers, ultimately driving positive change in both the beauty industry and the primary sector.

## Challenges & opportunities for closing the loop

At this stage, no ingredient is perfect, and progress over perfection is the priority. Here are some of the challenges and opportunities ahead!

Growing consumer demand for brands to uphold their commitments to circularity is driving the need for greater transparency in reporting.

Unlike other trending movements like "Clean or Green Beauty," Circular Beauty offers a clear and consistent definition that enables brands to report their progress quantitatively and accurately.

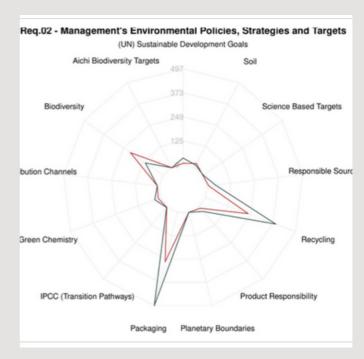
However, to facilitate this reporting process, tools and resources are required to simplify and verify sustainability claims. For instance, sourceMap, E-tailer, and Cult Beauty have collaborated to launch "Cult Conscious," a platform that utilises blockchain technology to provide proof points for verifying sustainability claims, shifting the focus from overselling to informed and empowered consumers (Inge, cited in Tiscini, 2022).

A study examining environmental disclosures in sustainability reports of cosmetic companies reveals a lack of effective performance measures and standardised reporting systems, indicating a disconnection between research and practitioner communities.

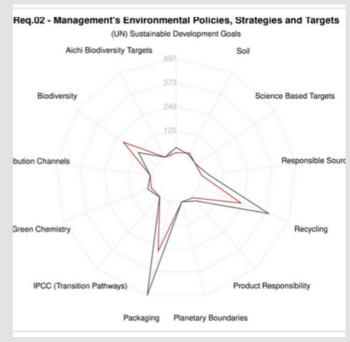
The most commonly reported terms and topics in these reports, as depicted in the graphs below, highlight a greater emphasis on "ethics," "packaging," and "recycling" while overlooking crucial aspects of circularity such as "sourcing."

This underscores the need for a more comprehensive measurement system that includes indicators like "circularity," "water efficiency," and "energy efficiency," which are more definitive and measurable in assessing circular practices (Tiscini, 2022, p. 892).

By establishing standardised reporting frameworks and incorporating key circular indicators, brands can demonstrate their commitment to circularity more effectively, addressing the demand for transparency and accountability from consumers.



Graph 1: Beauty Brands' Reports on UN SDG's Keyword Usage Source: Tiscini 2022, p.892



Graph 2: Beauty Brands' Reports of Risks and Opportunities Keyword Usage. Source: Tiscini 2022, p.892.

## Educating on value to compete on cost

Brands and manufacturers face the challenge of finding cost-efficient alternatives when it comes to eco-friendly options. One particular challenge is the perceived value of products with reduced packaging. Consumers may question the value of powder shampoos or shampoo bars compared to large bottles of liquid shampoo, which are predominantly water but are perceived to have higher value.

This situation presents an excellent opportunity for brands to launch educational campaigns highlighting the amount of waste prevented or the increased product quantity provided. For instance, UpCircle Beauty's Refillable Shampoo Crème, enriched with upcycled pink berry extract, offers three times more washes than the average liquid shampoo.

Concentrated products not only reduce packaging but also create a smaller space for brands to educate consumers about their benefits, emphasizing the need for innovative digital and in-store solutions, such as augmented reality (AR) wine bottle labels (UpCircle Beauty).

By effectively communicating the value and benefits of ecofriendly alternatives, brands can address consumers' concerns and promote the adoption of products with reduced packaging, ultimately driving the transition towards a more sustainable and circular beauty industry.



Image: Upcircle Beauty Educates on the Impact of their Products, giving specific numbers to instil consumer trust. Source: @Upcirclebeauty Instagram)



In addition to cost considerations, organisations can adopt circular business models by focusing on differentiation and strategic positioning.

According to the study "Strategic planning oriented to circular business models: A decision framework to promote sustainable development," businesses should assess their strengths and weaknesses to determine how they can position their organisational strategy for competition in a more circular future.

By identifying opportunities for competitive advantage, businesses can leverage circularity as a driver for sustainable development (Puglieri, 2022).

This study not only provides insights into various approaches to circular business models but also offers numerous examples that support the implementation of these models. By strategically aligning their operations with circular principles, organisations can create unique value propositions and seize the advantages presented by the transition to a circular economy.

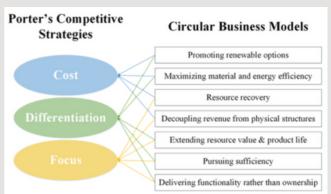


Figure 8: Approaches to Circular Business Models through the Lenses of Cost, Differentiation and Focus (Puglieri, 2022)

## Impact investment & collaboration

The emergence of business incubators and circular innovation hubs is playing a vital role in scaling up solutions and advancing research for circular alternatives. Notably, L'Oréal has demonstrated its commitment to this cause by contributing 50M€ as an anchor investor to the Circular Innovation Fund, alongside Demeter and Cycle Capital. These initiatives are essential for fostering collaboration, driving innovation, and accelerating the transition towards a more circular economy.

"By supporting entrepreneurs who are developing circular innovations, we're redesigning consumer behaviour."

-SOURCE WWW.LOREAL.COM/EN/PRESS-RELEASE/GROUP/A-NEW-CIRCULAR-INNOVATION-FUND/

The collaboration between different sectors exemplifies the importance of cross-sector collaboration in amplifying our impact. When food manufacturers collaborate with ingredient manufacturers to repurpose by-products and food waste, we witness the emergence of innovative beauty solutions with exponential benefits.

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For instance, gin, cider, and coffee companies are recycling spent grounds and pomace into valuable ingredients.

By venturing into new industry territories, formulators and ingredient manufacturers can transform one industry's waste into another's valuable resource, harnessing its nutrient-rich properties for inclusion in beauty products.

This collaborative approach maximizes the value of resources and promotes sustainability across industries.

Giorgio Dell'Acqua, Chair of NYSCC, emphasises the potential benefits of industrial hubs center around raw materials, stating that they can maximise capabilities and minimise waste (Cosmetics Design).

Collaboration within the industry, even among competitors, has fostered friendly competition and accelerated progress in circularity. Clariant, Beiersdorf, Borealis, and Siegwerk have joined forces through the Design4Circularity initiative to drive circular packaging innovations. This collaboration has led to the development of a colorless polyolefin bottle crafted entirely from 100% post-consumer recycled material, showcasing the potential for sustainable packaging solutions (Premium Beauty News).



Image: Design4Circularity initiative has created a colourless polyolefin bottle made from 100% post-consumer recycled material. (Source: PlasticsToday.com)

#### Conclusion

In conclusion, the circularity journey goes beyond environmental considerations. It encompasses social and economic aspects as well, creating a positive impact throughout the entire supply chain.

By adopting innovative extraction processes and circular business practices, we not only reduce pollution and conserve resources but also empower communities and promote their well-being.

Our end-products serve as bridges that connect back to the start of the supply chain, offering natural solutions and opportunities for growth.

Through transparency and collaboration, we contribute to the growth of the primary industry, drive scientific innovation, foster inclusion of underrepresented First Nation growers, and build authentic narratives that resonate with consumers.

Embracing circular design allows us to move towards a future where we achieve a net positive impact for both people and the planet.

"Moving to a circular economy presents a trillion-dollar opportunity for businesses around the world. By unlocking new value and harnessing innovation, the circular economy can drive greater resource productivity, reduce waste, and deliver a more competitive and sustainable economy."

Dame Ellen MacArthur

