

Unveiling underexplored territory: Integrating the Circular Economy and Scope 3 in the Apparel & Footwear sector

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Introduction

During the Apparel & Footwear Working Group, members have raised questions on the implications of circularity in Scope 3 strategies and efforts. This document aims to address these concerns by focusing on the intersection between Scope 3 and circularity as well as laying the foundations for a common action agenda. First, the challenges around the assessment of how circularity Interventions interplay with Scope 3 impacts are presented. Subsequently, the potential opportunities within this relationship are explored. This will serve as a first step towards enhancing the synergies between these domains and recognising the growing urgency for informed decision-making that avoids undesired trade-offs and allows for credible action.

The interplay between the Circular Economy and Scope 3 greenhouse gas (GHG) emissions remains a largely unexplored territory within the sustainability landscape. While both have received increasing individual attention over the past years, this relationship has remained underexposed, despite their similar purpose of reducing the negative impacts of our current industrial system and moving towards sustainable production and consumption within planetary boundaries.

Understanding this relationship within the Apparel and Footwear sector is critical given that raw materials (covering impacts from Tier 4 to Tier 2) constitute as much as two thirds of a brand's climate impact¹. As such, using circular strategies could be a very effective way to decarbonise apparel value chains². However, it is important to note that the prevailing discourse often overlooks the nuances. For instance, in other raw material sectors we see the irony of using virgin materials sometimes being more energy-efficient than utilising circular materials³. This short-sightedness neglects potential trade-offs and the broader benefits that circularity can offer. In addition to emission reduction commitments like the Science Based Target initiative (SBTi) targets, upcoming regulations will impact various stages of a product's life cycle, especially in the European Union. This includes for example the Ecodesign for Sustainable Products Framework, the Waste Framework Directive, and Extended Producer Responsibility Directives⁴, which are expected to require both decarbonisation and circular strategies.

¹ BCG/Textile Exchange/Quantis. (2023) Sustainable Raw Materials Will Drive Profitability for Fashion and Apparel Brands

² Ellen MacArthur Foundation. (2017) A New Textiles Economy: Redesigning Fashion's Future

³ The Guardian. (2023). Lego abandons effort to make bricks from recycled plastic bottles.

Emerging key terms

As Circular Economy presents a new realm within the Scope 3 space, we present several key emerging concepts that could be relevant in the discussion of bringing together Scope 3 and Circular Economy. These concepts will need further exploration, both in their development and their implications.

- **Displacement rate** [From WRI/WRAP]: The estimated portion of new product's impact avoided by following a reuse business model. No company should assume 100% displacement, or a one-to-one displacement, where one reused garment displaces one new garment.
- **Reverse logistics**: The process of collecting used products and materials from first customers so they may be reused, recycled, or upcycled into other products.
- **Sales Shed**: Concept to be developed, leveraging the Supply Shed principles with the intent of establishing the link between the Intervention and the use of product sold.

Challenges

Navigating the space of the Circular Economy within the context of Scope 3 involves many challenges, and evidence-driven understanding is key to tackling them.

One of the fundamental barriers is the ultimate **need for absolute reduction in resources**, which is often overlooked by the focus on end-of-pipe solutions (e.g., R-strategies such as refurbishment or recycling⁵).

Additionally, the **assessment of the impact** of extended product lifetimes and reuse, especially concerning Scope 3 emissions (related to **Category 11: Use of sold products**), remains highly theoretical and based on numerous assumptions. However, there have been some great first steps towards standardised metrics and measurement guidelines, such as the efforts from the World Resources

⁴ BCG/Textile Exchange/Quantis. (2023) Sustainable Raw Materials Will Drive Profitability for Fashion and Apparel Brands

⁵ Even though there are multiple frameworks to categorise circularity strategies, we are referring here to the following: Reuse, Repair, Refurbish, Remanufacture, and Recycle. These can be implemented independently or in combination with each other.

Institute (WRI)⁶ to approach and quantify **displacement rate**. Meanwhile, the World Business Council for Sustainable Development (WBCSD)⁷ has concentrated on understanding the circular impact on GHG emissions for **reused, refurbished, remanufactured and recycled inflow and the recovery of outflows** versus linear disposal methods (landfilling/incineration).

However, there are still other barriers related to **data availability, accessibility and imperfect downstream traceability** that need to be removed to fully capture the impacts in a credible and consistent way. Furthermore, this would allow well-informed decision making that enables Interventions with the highest impact or cost/impact ratio.

The current challenges pose a risk of **overlooking trade-offs with climate objectives within the Scope 3 context**, as these concepts and impacts remain disconnected. The most circular options may not necessarily align with the most carbon-effective approaches. Additionally, circularity strategies are often solely focused on waste reduction, failing to account for the broader climate and nature impact reductions. Moreover, there might also be trade-offs on the social component of Interventions. The silo impact focuses of circularity strategies could give rise to inequalities, social impacts, and waste streams, affecting a just transition that considers the broader systemic consequences. This further complicates the challenge in reconciling circularity with broader sustainability goals.

These potential trade-offs emphasise the pressing need for robust and comprehensive measurement frameworks, accurate (or at least representative) and reliable data on different dimensions, as well as appropriate safeguards to ensure the efficiency, scalability and credibility of circular Interventions with positive impacts on reducing Scope 3 emissions.

Opportunities

Uncovering the relationship between the Circular Economy and Scope 3 provides the space for a set of opportunities to unfold. They have the potential to unlock transformative, credible solutions needed for the sustainability transition of the Apparel and Footwear sector. Such opportunities include **leveraging Life Cycle Assessment (LCA) modelling** to further understand and

evaluate impact hotspots across the Apparel and Footwear value chain concerning various circularity Interventions. This strategic use of LCA will enable stakeholders to make well-informed decisions by offering a **methodology that assesses the balances between resource circularity and carbon reductions**. It also allows the identification of connections with broader sustainability goals to maximise positive environmental outcomes while minimising negative impacts across the supply chain. Such an approach becomes instrumental in developing effective circularity and decarbonisation strategies, and associated credible actions.

Other opportunities may arise from **exploring the applicability of Scope 3 accounting concepts and systems** that solve inherent challenges from the complexity of the supply chain (e.g., traceability, data and collaborative implementation). This exploration can provide nuances on how to account for the displacement rate of different circularity models and their related impact on Scope 3 to make credible claims.

An equally crucial opportunity lies in the development of a **standardised and consistent approach to the Validation and Verification (V&V)** of circular Interventions; particularly concerning CO₂ reductions and potentially other environmental dimensions. Establishing such frameworks to enhance robustness of the V&V process becomes key in ensuring the credibility and authenticity of claims in this field. This can further incentivise collaboration and co-investment of circularity Interventions across the value chain.

Conclusion and recommendations

Building on the discussions within the Apparel & Footwear Working Group and the identified opportunities, a focused approach is proposed to prioritise different aspects of this relatively unexplored yet highly impactful relationship between circularity and Scope 3. The focus should involve leveraging LCA alongside existing frameworks to pilot adaptive approaches for ongoing circularity initiatives to avoid undesired trade-offs. With it, collective efforts are crucial to explore and propose data frameworks that comprehensively capture the impact of circular Interventions; necessitating the adaptation of methodologies and novel concepts to address the existing

⁶ WRI/WRAP. (2021). Square Your Circle: How to Assess the Environmental Impact of Reuse Business Models in Apparel.

⁷ WBCSD. (2023). CIRCULAR TRANSITION INDICATORS V4.0. Metrics for business, by business.

challenges such as downstream traceability. Additionally, there is a need to rethink and adapt Scope 3, Category 1 to reflect the interplay with Category 11 in the various circularity Interventions. Here considering aspects like displacement, reverse logistics and extended product lifetime, becomes essential.

Moreover, it is necessary to provide clear guidance on how companies can claim circularity Interventions and communicate them effectively. This includes developing protocols for validation of assumptions, pushing companies toward more robust data collection practices and steering clear of greenwashing. Finally, understanding the intersection of existing regulations within evolving standards becomes crucial for informed decision-making to unlock credible action.

This document is intended to highlight priorities to advance the knowledge on the intersection between Scope 3 and Circular Economy. We would like to call our members and likeminded organisations to collaborate on this endeavour, not only by joining forces through collaborative learning, but also by amplifying the message. It is imperative that organisations focused on both areas of work develop the frameworks and evidence to support the industry in the transition towards a Net Zero circular sector.

Proposed questions for exploration

- What is an actionable definition of a “circular product” in terms of Scope 3 GHG accounting in the Apparel and Footwear sector?
- What accounting methodologies are needed to claim the impact of circularity Interventions? How could these methodologies be compatible with the GHG Protocol Scope 3 Standard and SBTi Corporate Net Zero framework?
- What systems, tools or mechanisms can be leveraged to overcome data and traceability barriers for credible assessments of circular Interventions' impacts on Scope 3 emissions?
- How can we assess and align industry practices to address potential trade-offs between circularity and carbon-effective strategies within Scope 3 emissions?
- How can the existing Validation and Verification frameworks for Scope 3 emission reductions be adapted to integrate circularity Interventions?
- What trade-offs may arise with other sustainability dimensions (e.g., social aspects) when implementing circularity Interventions, and how can these be effectively addressed?

Sources

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The Value Change Initiative is a peer-to-peer learning forum bringing together 100+ climate experts developing solutions to achieve value chain emission reductions and removals. This group of companies, leading civil society actors and internationally recognised climate frameworks identifies barriers to value chain action, co-develops and test practical solutions and publishes guidance from the consensus generated.