

REVERSE LOGISTICS

FOR CIRCULAR FASHION SYSTEMS

AN EXPLORATION OF UNTAPPED POTENTIAL

Supported by



MAERSK

IMPRINT

Publisher: Global Fashion Agenda
Authors: Holly Syrett, Felicity Lammas
Editor: Sergio Laguna
Designer: Florinda Pamungkas

© 2024 copyright Global Fashion Agenda

Global Fashion Agenda gratefully acknowledges the support of Insight Partner and leader in global logistics, Maersk, who has made the publication of this report possible.

Contributors

The authors would like to thank the following industry experts, interviewees, and reviewers who contributed their time and expertise to this report:

Anders Sejr Wøggsgborg, Senior Customer Sustainability Partner, Maersk
Andres Oliva Lozano, Senior Research Analyst, Ellen MacArthur Foundation
Cecilia Strömbblad Brännsten, Head of Resource Use and Circular Impact, H&M Group
Claus Mølholm Hansen, Global Marketing Manager Lifestyle & Retail, Maersk
Hilde van Duijn, Managing Director, Circle Economy Foundation
Irene Quarshie, Senior Vice President of Global Supply Chain & Logistics, Target
Jeannie Renné-Malone, Vice President, Global Sustainability, VF Corporation
Kaisa Tikka, Head of Commercial Sustainability, Maersk
Omera Khan, former Head of Supply Chain Insights and Trends Lab, Maersk
Peggy Reid, Global Circular Director, Nike
Stefan Seidel, Senior Director Corporate Sustainability, PUMA Group
Zenia Inselmann, Sustainability Marketing and Development, Maersk

Global Fashion Agenda Team

Thanks to members of Global Fashion Agenda's team for their contributions: Dana Schou, Sanjana Chopra, Sara Thulesius, Alice Roberta Taylor, Faith Robinson, Constance Beswick, Malvika Venkatesh and Imogen Lee-Savage.

Disclaimers

While mentioned parties support the content of this publication relevant to their fields, this does not mean that their organisations or members holistically endorse this report. Moreover, the report does not constitute their explicit views and is not intended to bind them to any commitment or course of action.

Reverse Logistics for Circular Fashion Systems is a Global Fashion Agenda publication, made possible with the support of Maersk, whose contributions to the report's content have been consistent with those of other interview-based contributors.



ABOUT GLOBAL FASHION AGENDA

Global Fashion Agenda (GFA) is a non-profit organisation that fosters industry collaboration on sustainability in fashion to accelerate impact. With the vision of a net positive fashion industry, it drives action by mobilising, inspiring, influencing and educating all stakeholders. The organisation has been leading the movement since 2009 and presents the renowned international forum on sustainability in fashion, Global Fashion Summit. GFA influences policy through its advocacy efforts, publishes thought leadership, implements impact programmes, presents educational guidance, and connects companies with solutions.

To learn more, visit our [website](#) or contact us directly via impact@globalfashionagenda.org

ABOUT MAERSK

Maersk is a global integrator of logistics, offering comprehensive end-to-end logistics services, a growing suite of digital solutions and a global delivery network spread across +130 countries. By connecting and simplifying global trade, Maersk empowers its customers and broader society to create value, grow and thrive. But Maersk only succeeds when this growth is decoupled from negative impacts on individuals, communities, the planet and resources we all share. The Maersk vision to become the Global Integrator demands an accelerated transition to decarbonise global supply chains and enables trade with less climate impact for our growing world.

To learn more, visit the Maersk [website](#) or contact Maersk directly via [Fashion supply chain management - Contact us | Maersk](#)

EXECUTIVE SUMMARY

The fashion industry depends on logistics partners for the smooth running of its operations, with forward logistics pivotal for efficient, cost-effective supply chain management, inventory control and speed to market. However, many fashion companies have not yet tapped into the potential benefits of reverse logistics beyond the handling of customer returns.

That said, fashion's frontrunners are already implementing resale, repair and recycling models as part of their transition to circular fashion systems as they aim to extend materials' and products' life cycles, maximise their value, minimise waste and aid compliance with the multitude of forthcoming regulations around circularity as well as addressing shifting consumer sentiment.

In close cooperation with logistics providers, they are implementing reverse logistics solutions that offer streamlined processes in an array of key operations, among them collection, sorting, transportation and storage. However, upgrading the currently fragmented solution landscape to a fully integrated one is imperative. It requires a holistic systems approach that caters to the needs of multiple actors, can reach scale and demonstrates return on investment (ROI). Effective deployment of advanced technology and deep integration of logistics partners are key to operationalisation.



Federica Marchionni
CEO, Global Fashion Agenda

LAYING THE FOUNDATIONS FOR REVERSE LOGISTICS – THREE ESSENTIALS

This report guides fashion brands, retailers, their value chain partners, and logistics providers on the essential elements necessary to leverage reverse logistics for a holistic and effective circular fashion system.

1. NETWORK DESIGN

Effective network design is fundamental for understanding where and how reverse logistics is required to support a circular fashion system. Reverse logistics involves transporting and managing the reverse flow of previously wasted materials and products from end-users, and returning them back into the system for resale, remaking and recycling, followed by safe end-of-life disposal. It requires a fundamental rethink of how to keep resources in a closed loop and relies on local and global partnerships, interconnected networks and multidirectional flows of information.

2. FINANCIAL OWNERSHIP

Clarity on financial models in circular fashion systems is key for attracting investment, a major priority given the substantial upfront cost of implementing solutions. Furthermore, clear financial models help demonstrate the viability of business models, while enhancing collaboration, risk management, regulatory compliance and system scalability.

3. BOOSTING COLLECTION VOLUMES

Securing large feedstock volumes is crucial for piloting new solutions and for commercially viable scaling. Efficient sorting, resale, repair and recycling solutions are required for both post-industrial and post-use textile waste. Reaching economies of scale in collection requires collaboration between multiple companies. Accessible collection points, coupled with effective education and incentives, are vital to foster consumer engagement and fuel demand for circular solutions.

CONTENTS

INTRODUCTION	5
1. NETWORK DESIGN – ENHANCING CONNECTIVITY AND INTEGRATION	6
Opportunities	7
Challenges	8
What’s Needed?	9
2. FINANCIAL OWNERSHIP – ESTABLISHING FINANCIAL VIABILITY	10
Opportunities	10
Challenges	11
What’s Needed?	12
3. BOOSTING COLLECTION VOLUMES – TOWARDS ACHIEVING ECONOMIES OF SCALE	13
Opportunities	13
Challenges	14
What’s Needed?	15
NEXT STEPS	16
DEFINITIONS	17
REFERENCES	18

INTRODUCTION

Logistics has always played a crucial role in the fashion industry, ensuring efficient supply chain management, inventory control and speed to market. However, new challenges are prompting fashion brands to cooperate more closely with their logistics partners to create more circular systems. Their aim is to address tightening legislation, greater scrutiny of environmental impacts, heightened risk of supply chain disruption and shifting consumer behaviour.

Globally, over 520 regulations are pushing companies to rethink their sourcing and design strategies, and focus on regionalisation and circularity.¹ EU regulations such as the Waste Framework Directive, the Ecodesign for Sustainable Products Regulation and the EU Strategy for Sustainable and Circular Textiles aim to accelerate the transition to a circular economy in view of its prospective positive impact on multiple dimensions. Research indicates that shifting to circular business models (resale, rental, repair, remaking) could also generate a USD 700 billion value pool by 2030,² with 45% of brands surveyed by the Global Fashion Agenda reporting that they have set targets to derive at least 10% of their revenue from circular business models by 2040.³

Aside from compliance concerns, companies are looking to circular systems as a means of reining in costs and finding new revenue sources. Responding to volatile raw materials prices and persistent inflation, brands are keen to lower their dependence on virgin materials and resource-intensive processes. Aiming to mitigate risk and lower transportation costs, many are seeking to streamline and localise supply chains. Forward-thinking companies are exploring growth opportunities in second-hand markets, upcycling services and fashion subscriptions, while building communities of loyal, sustainability-conscious customers. A 2024 Global Fashion Agenda survey found that 65% of brands and 55% of manufacturers have set targets to design all products for the circular economy by 2040, with 36% and 79% respectively already reporting their progress.⁴

Despite the promise of circular fashion, the industry lacks a comprehensive system to support it. Existing approaches are fragmented and often fail to deliver commercial viability. Companies need to take a holistic approach that caters to the needs and expectations of multiple actors, achieves scale and demonstrates ROI, while effectively deploying advanced technology with deeper integration of logistics partners.

This report explores the logistics sector's potential role in providing reverse logistics solutions to support the fashion industry's transition to circular fashion systems. Based on interviews with industry insiders and logistics experts, and drawing on a study of exemplary practices, we outline three essentials that companies must address for a truly circular fashion system: network design, financial ownership and boosting collection volumes.

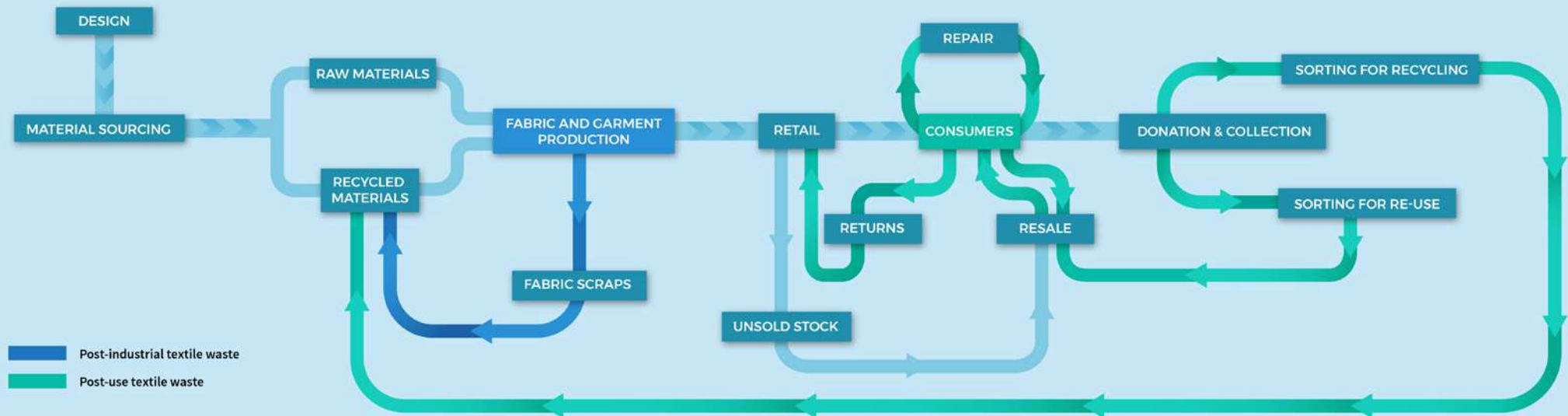
1. NETWORK DESIGN

Enhancing Connectivity and Integration

Effective network design is crucial for circular fashion systems, enabling the optimal flow of materials and products from end-users back into the value chain through efficient reverse logistics. However, fashion companies rarely control their entire value chain, which involves numerous stakeholders.

Figure 1 below outlines in broad strokes the reverse logistics process.

Today, reverse logistics in the fashion industry focuses largely on consumer returns – albeit at a massive scale, with between 40% and 60% of online purchases returned by consumers.⁹ A streamlined reverse logistics system that enables and potentiates the 5Rs – returns, recapture, remanufacturing, reuse, and recycling – relies on a strategic approach that carefully considers key tactical decisions around network design. Supported by feasibility studies, decision-makers need to address a wide spectrum of issues and plan with meticulous attention to detail, right down to warehouse design and the technological support needed. Beyond customer returns, reverse logistics should also incorporate recapturing and recycling of post-industrial textile waste and managing unsold goods.



OPPORTUNITIES

ENVIRONMENTAL AND COST SAVINGS

Smart network design encompassing effective operationalisation of reverse logistics can improve environmental impact by extending the lifespan of materials and products and enhancing efficiency. Companies can minimise waste and extract greater value from resources, reducing reliance on virgin materials and waste disposal costs. The Circularity Gap Report indicates that 90% of materials globally are either wasted or neglected for reuse.⁶ Greater circularity can unlock this value. Through strategised integration, logistics can present an appealing cost advantage for fashion companies currently grappling with ill fitting, piecemeal logistics solutions that often prove unviable.

EFFICIENT INVENTORY MANAGEMENT AND FORECASTING

Better network design in circular fashion systems can enhance inventory management and forecasting of material and product flows. Strategically locating infrastructure for collection, sorting and recycling, and integrating reverse logistics ensures timely collection and redistribution of items from end-users back into the value chain. As a result, visibility of inventory and the demand forecasting accuracy greatly improve. Furthermore, the transparency afforded by an integrated logistics approach can help

mitigate oversupply, a pressing problem given that roughly 30% of all clothes produced around the world remain unsold.⁷ **H&M Group, for example, uses AI to reallocate products based on demand, optimise size availability and refine demand forecasts for specific stores, contributing to improved assortment planning, optimised deliveries and reduced excess stock.⁸**

BUILDING ON EXISTING SYSTEMS

Charity organisations such as Oxfam and UNICEF have been taking back, sorting and reselling textiles for decades. Despite their longevity, these systems have operated independently of the fashion industry. As the fashion industry refines and expands its circular fashion system, there's an opportunity to build on these established structures, securing traceability, maintaining value in a closed-loop system and ensuring fair financial distribution.



CHALLENGES

FRAGMENTED APPROACH

The main barrier to effective implementation of reverse logistics is usually a lack of coordination across multiple stakeholders, resulting in a fragmented approach. Given the wide variety of stakeholders – from manufacturers, retailers and recyclers to logistics providers, technology vendors, regulatory bodies and other actors – reverse logistics involves the management of many complex relationships and workflows.

Coordinating processes and forging partnerships can prove resource-intensive and challenging. The fragmented manner in which many organisations currently operate is no longer fit for purpose as the industry transitions to genuine circularity, while emerging solutions are still in their infancy.

COST IMPLICATIONS

Failure to incorporate reverse logistics into the initial supply chain design can quickly drive up costs, especially given the significant upfront investment needed. Logistics partners need to be involved early on to avoid late-stage bottlenecks and costly postponements resulting in hasty, patchwork fixes that compromise system quality. Furthermore, inefficiencies such as multiple handling points, longer transportation routes and increased labour requirements can likewise drive up costs.

That said, brands often face a dilemma: while optimising supply chains for better transportation costs typically requires locating key collection processes close to consumption points, the high labour costs in the high-wealth regions – where most fashion is consumed – can be prohibitive for localised implementation.

TECHNOLOGY INTEGRATION

Integrating technology, such as advanced tracking and monitoring based on RFID (radio frequency identification), that ensures seamless operation and data accuracy throughout the supply chain poses significant challenges. Particularly SMEs with more modest budgets can be overwhelmed by the investment, technical expertise and upskilling needed.

Additionally, ensuring compatibility and seamless data exchange across various platforms and stakeholders in the value chain is a complex affair, typically requiring robust IT infrastructure and regular maintenance, with the integration process often disrupting existing workflows.



WHAT'S NEEDED?

CIRCULAR ECONOMY MINDSET

Circular mindsets across the value chain are critical for effective network design. Leadership buy-in is needed to endorse system change and allocate resources for long-term value creation. Circular practices must permeate all business functions. A cross-functional approach of this kind bridges departmental gaps, fostering collaboration and leveraging diverse skill sets to prioritise circularity in business strategy.

Forward-thinking leadership balances short-term gains with long-term resilience through strategic investments and robust governance. **In its Coming Full Circle report, Kering outlines its holistic approach to circularity, which is aligned with its climate and biodiversity strategies.** By educating employees across its functions as well as external value chain actors, the company ensures buy-in and engagement, while adjusted performance metrics and incentives embed circularity into organisational operations.

COLLABORATIVE PLANNING

Partnering closely with multiple stakeholders at early strategic stages of design, planning and execution is key to co-create circular end states tailored to the envisaged business models and target markets, thus facilitating smoother implementation and long-term success. Companies should think in terms of interconnected networks that leverage local and cross-regional partnerships, with a system allowing multidirectional flows of information, goods and money as the gold standard.

INNOVATION AND TESTING

Innovation and continuous improvement are key to ensure that networks are designed to support circular fashion systems at scale. Investing in research and development can drive innovation in reverse logistics processes. Rigorous piloting allows companies to test and refine strategies before full-scale implementation. Strategies can be adapted to evolving market conditions based on feedback mechanisms that continuously capture data and insights. **Nike, for instance, is pursuing multiple pilot programmes to help consumers recycle and refurbish their products, such as Recycling + Donation (RAD), which recycles worn gear into Nike Grind and donates usable items through community partners, and Nike Refurbished, which extends the life of gently worn or slightly imperfect footwear by refurbishing and reselling it.**

2. FINANCIAL OWNERSHIP

Establishing Financial Viability

Understanding financial models and ownership of assets within circular fashion systems is essential for crafting viable business cases and attracting investment. Actors need clarity on profit generation and sharing to confidently invest in the infrastructure, technology and capabilities needed to transition to circular fashion systems.

Clear financial models foster collaboration by defining roles, responsibilities and profit-sharing mechanisms, enhancing risk management and regulatory compliance and de-risking investments.

The structure of financial models hinges on whether materials are resold, rented, repaired, remade or recycled – with varying financial implications.

OPPORTUNITIES

ORCHESTRATING SOLUTIONS

Clear financial models in circular fashion systems enable better orchestration of solutions, such as recycling programmes, resale platforms, repair services and product take-back schemes, by delineating roles and responsibilities, facilitating investment, enhancing collaboration, optimising resource allocation and supporting informed decision-making.

Logistics providers can also better understand which stakeholders to engage with, their respective roles, value propositions and the necessary reverse logistics solutions or processes. With demand clearly defined, centralised procurement processes and scalable solutions and standards for efficient reverse logistics can be established, paving the way for widespread implementation across markets.

NEW REVENUE STREAMS

As companies transition to circular fashion systems, integrating effective reverse logistics positions brands to take advantage of opportunities across the five Rs. The global second-hand apparel market alone is expected to nearly double by 2027, reaching USD 350 billion and outpacing the overall apparel market threefold in most regions, among them Asia, Europe, South America and Africa.⁹

Markets for fashion restoration, resale, repair, customisation and rental are already worth over USD 73 billion, with companies such as Depop and Rent the Runway valued at more than USD 1 billion.¹⁰ **VF Corporation's The North Face Renewed, which repairs and resells hard-worn garments, and The Lauren Look platform by Ralph Lauren, a subscription apparel rental service, demonstrate how brands are exploring convenient ways for consumers to engage in new value-added services.**

COLLECTIVE FINANCING

A successful transition requires coordinated investments from all stakeholders. A collaborative approach not only spreads the financial burden but also fosters innovation and ensures the development of a robust infrastructure necessary for a more circular fashion industry.

Co-financing mechanisms are already being established in the fashion industry with cross-sector actors to support GHG emission reduction efforts, for example the Renewable Energy Initiative (fashion brands collectively co-financing renewable energy infrastructure in manufacturing regions) and the Future Supplier Initiative (fashion brands collectively helping manufacturers access competitive financing for their decarbonisation programmes). Serving as catalysts, such initiatives can generate momentum for further investment.

CHALLENGES

OWNERSHIP MODELS

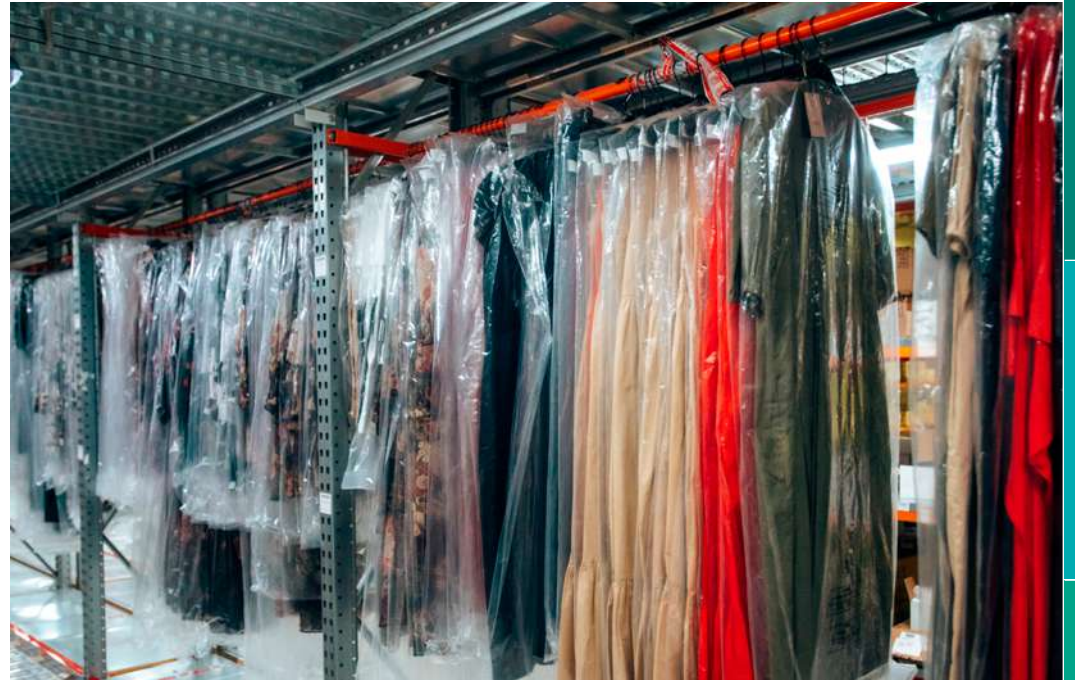
Determining the best ownership model for the given constellation and how it impacts financial performance and consumer acceptance is crucial. Models that shift revenue streams from one-time sales to recurring payments impact how businesses recognise revenue, measure performance and interact with consumers. Financial planning and forecasting systems need to be adjusted accordingly.

LONGER RETURNS ON INVESTMENT

The high investment needed in infrastructure for collecting, sorting and recycling textiles in circular systems is tied to longer ROI periods relative to traditional practices. Accordingly, it can be difficult to manage and justify, especially for SMEs. While some capabilities are already in place to support the transition, technologies for remanufacturing and recycling materials are still in the development phase and remain expensive. New systems in the pilot phase need scaling to become commercially viable (see section 3).

INCONSISTENT REGULATORY FRAMEWORKS

A layer of complexity is added by the need to navigate inconsistent policies and regulations across different jurisdictions governing waste handling, recycling and broader circularity practices. Compliance with policies regulating waste imports and transportation in certain countries presents barriers that hinder the safe circulation of goods and, ultimately, the adoption of circular business models.



WHAT'S NEEDED?

INDUSTRY-WIDE DISCUSSIONS AND FRAMEWORK DEVELOPMENT

The industry needs to debate and refine financial models, providing clarity on cost structures, revenue streams, ROI and profitability. This process should enable actors to make informed decisions and allocate resources effectively in support of circularity initiatives.

Clear frameworks are key to enabling stakeholders to measure the financial and environmental performance of their investments, bolstering the business case and supporting sustainability reporting and compliance with legislation. The GHG Protocol Corporate Accounting and Reporting Standard, for example, serves as a framework for investments aimed at reducing greenhouse gas emissions, ensuring accountability and efficacy in initiatives.

ACCESS TO CAPITAL

Multi-brand collaboration arrangements and public-private partnerships with the participation of governments, brands, retailers, logistics providers and financial institutions can pool resources for greater impact, spread the financial burden and foster innovation. Industry alliances, joint ventures and collective action can facilitate co-investment in the commercial-scale infrastructure and capabilities needed, while ensuring clear responsibility and accountability.

Clear measurement frameworks to assess the financial and environmental returns guide decision-making and ensure increased circular outcomes. Looper Textile Co., a joint venture by H&M Group and Remondis, is one example of a collaborative approach aiming to extend the useful life of unwanted garments through reuse and recycling. The initiative is driving innovation in textile collection, including the implementation of automated near-infrared sorting technologies.

SUPPORTIVE LEGISLATION AND FINANCIAL INCENTIVES

Closer collaboration with policymakers is necessary to establish supportive and consistent legislation, such as extended producer responsibility and waste management regulations across the jurisdictions in which operations are located, which is for instance actioned through the Global Textiles Policy Forum.

Appropriate tax incentives and subsidies for the adoption of new circular business models are likewise needed. It is important to inform the prioritisation of infrastructure investment, creating a favourable environment for circular practices and encouraging long-term investments with reduced financial risks. **There are many best-practice examples in other sectors, including Denmark's Dansk Retursystem, a scaled deposit system mandating financial incentives for end-users to return used bottles and cans.**

3. BOOSTING COLLECTION VOLUMES

Towards Achieving Economies of Scale

Primarily designed for distributing new products, current fashion logistics systems lack the infrastructure needed for efficient reverse logistics for collecting and processing post-industrial and post-use textile waste at scale.

Many technologies, such as automatic sorting and textile-to-textile recycling depend on the availability of commercially viable volumes of textiles. Securing substantial feedstock volumes is likewise critical for piloting and scaling new solutions. Additionally, higher volumes of suitable feedstock should lower the prices of recycled fibre and materials, enhancing competitiveness and increasing consumer acceptance. The resulting efficiency supports the business case to invest in circular infrastructure, attracts investor interest and enables the implementation of advanced technologies.

OPPORTUNITIES

MULTI-STAKEHOLDER COLLABORATION

Reaching economies of scale in collection requires collaboration between multiple companies. By creating shared collection points and leveraging their combined customer bases, companies can significantly increase the volume of returned products, making investments in sorting and processing infrastructure more viable.

Such alliances can facilitate knowledge sharing and joint initiatives aimed at boosting collection efforts and implementing best practices. This harmonisation can reduce the per-unit cost of processing returned goods, improving operational efficiency and facilitating better data collection and analysis for swift and effective improvements. **Pioneering brands are already engaging in successful cross-sector initiatives such as the [Circular Fashion Partnership](#) and [Sorting for Circularity Europe](#) to advance textile collection and recycling solutions for both post-industrial and post-use textile waste.**

REGIONALISED COLLECTION

By focusing on local hubs, companies can optimise logistics and shared transportation costs. Moreover, regionalised collection strategies are key for developing tailored approaches that cater to specific local needs and preferences, increasing community engagement and enabling quicker adaptation to regulatory changes and market demands.

At the same time, companies need to advocate for supportive legislation that promotes higher collection rates. Companies should partner with governments to establish convenient collection points funded by public grants and subsidies. As separate textile collection initiatives begin to be mandated at the municipality level across EU countries, and with all EU member states required to implement separate collection by 2025, it is crucial to ensure that the fashion industry can benefit from the resulting waste streams.

INFRASTRUCTURE AND TECHNOLOGICAL INNOVATIONS

Backed by high collection volumes, there are huge opportunities for encouraging innovation in infrastructure and technology for circular fashion systems, in turn driving collection volumes in a virtuous cycle. Implementing smart collection systems that automate sorting and tracking can streamline operations, efficiently managing larger volumes of textiles.

Emerging technologies, such as RFID tracking, blockchain and artificial intelligence (AI), can enhance the efficiency and traceability of waste flows, while ensuring accountability across the supply chain. Remote tracking of collected garments provides real-time data that can be used to optimise collection routes and improve overall efficiency. **For example, [trinamiX's handheld sorting technology](#) identifies up to 15 material compositions, enhancing the accuracy and efficiency of manual sorting processes.**

CHALLENGES

STREAMLINING COLLECTION

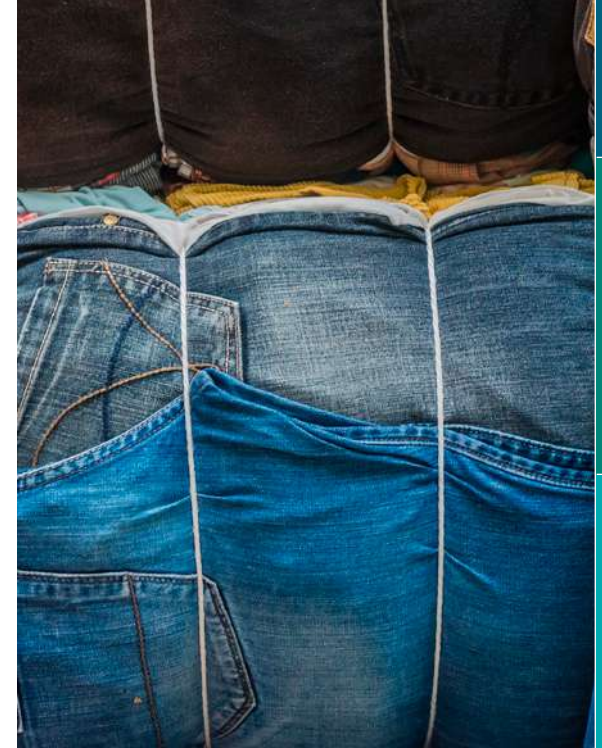
The logistics for the efficient movement of post-industrial and post-use textile waste from multiple collection points to the points of storage, sorting and recycling can be complex and costly. It requires careful planning together with logistics partners and investment in necessary capacity building – such as collection points, sorting facilities and a transportation network to equal the efficiency of forward logistics networks and ensure long-term economic viability. **For instance, the U.S. retailer Target optimises its transportation routing system by collecting end-of-life items during regular store replenishment trips, minimising empty miles and enhancing logistics efficiency.**

ACCURATE LABELLING

Inaccurate labelling of fibre and chemical composition poses challenges when scaling collection volumes for circular fashion systems. A 2020 study found that 41%¹¹ of labels were inaccurate, emphasising the need for forthcoming green claim legislation and digital passports to ensure precise labelling. Accurate labelling is crucial for recyclers, given the complexity of material blends, which require a wide variety of recycling technologies. Concerns also centre on chemical pollution and cross-contamination from old garments that may no longer meet current restricted chemical regulations, exposing materials and products produced from recycled fibres to liability and compliance risks, among others.

CONSUMER BEHAVIOUR

Many consumers are unaware of the environmental impact of their fashion choices or indeed the benefits of circular fashion. Others may find it inconvenient to participate in collection programmes, and some are not aware of where they can hand back their used clothing. Changing consumer behaviour will require significant investment in education and incentives.



WHAT'S NEEDED?

CONVENIENT COLLECTION INFRASTRUCTURE AND INCENTIVES

Making collection points more convenient through accessible drop-off locations, collection bins and take-back programmes in retail stores can enhance consumer participation. Offering incentives and responsible rewards systems for returning used clothing fosters consumer engagement and creates demand for circular solutions. Retail initiatives such as resale and re-commerce platforms further extend the life cycle of fashion items by enabling consumers to buy and sell pre-owned clothing, reducing demand for new products and diverting garments from landfills.

Some fashion brands are collaborating with established B2C re-commerce platforms, such as Carhartt with Trove and Burberry with Vestiaire Collective, while others, among them New Balance with its Reconsidered programme, are creating their own resale platforms. Some brands are facilitating B2B resale initiatives, selling samples and excess materials to internal staff and designers at a discount to avoid improper disposal and maximise resource efficiency.

EDUCATION AND AWARENESS CAMPAIGNS

Engaging consumers through marketing campaigns, social media and other channels is vital to changing consumer behaviour, increasing the return rates of used garments and driving demand for circular solutions and recycled materials. Clear communication about the goals and next steps for collected volumes is essential when implementing initiatives like take-back and repair schemes.

Public sector actors can amplify these messages and raise awareness to encourage broader participation beyond individual brand efforts. **A recent campaign example is Sojo's Pledge to Repair, which aims to galvanise brands and citizens to promote and commit to extending the life cycle of clothes through repair and long-term care. Brands including Ganni and Ahluwalia have already signed on.**

TECHNOLOGICAL BLUEPRINT

From the outset, companies need to define their technology blueprint to enhance their capabilities effectively. **Technologies such as Fibersort, which automates sorting of mixed post-consumer textiles into up to 90 compositions, represent just one example of innovations facilitating consistent input materials in high-value textile recycling.**

Additionally, effective grading and quality control systems streamline sorting in circular fashion models based on condition and material, optimising their end-use through resale, recycling or repurposing, while reducing labour-intensive inspection. High-quality sorting enhances recycling efficiency by providing pure, uncontaminated material streams that are easier to process and more valuable. Moreover, effective grading verifies compliance with chemical safety standards, reducing the risk of reintroducing harmful substances into the market.

NEXT STEPS

The imperative to act has never been greater: if it continues on its current trajectory, global consumption of fashion is projected to surge by 63% by 2030, generating more waste and threatening resource availability.¹² To effectively leverage reverse logistics for circular systems, fashion brands, retailers and logistics providers, supported by knowledge experts and initiatives, must take the following next steps.

1. ENGAGE IN COLLABORATIVE CONVERSATIONS

Initiate discussions with all stakeholders to identify needs, preferences and solutions for circular fashion systems, and explore how reverse logistics can facilitate their implementation.

2. TRACK PRODUCT AND MATERIAL FLOWS

Enhance transparency and efficiency in reverse logistics through advanced technologies. Track current material flows to identify opportunities for extracting value from waste streams and invest in solutions that align with strategic goals.

3. SECURE PARTICIPATION AND SUPPORT

Launch educational campaigns and incentives to promote the participation of value chain partners and consumers in textile waste initiatives and drive demand for circular solutions.

4. TEST AND EVALUATE

Conduct trials and pilots to assess feasibility, scalability and sustainability impacts, ensuring investments lead to tangible outcomes and long-term socio-economic viability.

5. ENGAGE WITH POLICYMAKERS

Collaborate with policymakers to promote supportive legislation, financial incentives and clear regulatory frameworks that reduce risks and promote long-term investments in the infrastructure needed.

By taking these steps, fashion brands, retailers and logistics providers can harness the potential of reverse logistics to establish a truly holistic and highly effective circular fashion system. Through this system approach, the fashion industry has a compelling opportunity to extend the life cycle of materials and products, maximise value, minimise waste, comply with tightening legislation and demonstrate positive environmental impacts.

LEARN MORE

We invite fashion brands, retailers, manufacturing companies, logistics providers, policymakers, textile recyclers, collectors and sorters to join Global Fashion Agenda and Maersk in shaping the future of circular fashion systems through reverse logistics. Sign up [here](#) to be invited to future dialogues and/or industry initiatives focused on the critical role of reverse logistics.

DEFINITIONS

CIRCULAR DESIGN PRINCIPLES

Designing products to be used more, made to be made again, and made from safe and recycled or renewable inputs. It entails aligning product design and manufacturing with the underlying business model. Furthermore, design and manufacturing takes into account the disassembly at the end of the product's useful life with a view to reuse, remaking, recycling and – where relevant, and after maximum use and cycling – safe composting of materials.¹³

CIRCULAR BUSINESS MODELS

Business models which keep materials and products at their highest value, including resale, repair, rental and remaking, and result in the decoupling of economic development from finite resource consumption.

POST-INDUSTRIAL TEXTILE WASTE

Any textile originating from an industrial process such as milling, spinning, printing and garmenting processes that is traditionally classified as waste. This often refers to clippings from garmenting, but includes rolls of unused fabric and for instance flawed products. Also known as pre-consumer waste/materials.

POST-USE TEXTILE WASTE

Clothing and textile products or leftovers that have been used by a consumer and then discarded after use. Also known as post-consumer materials or materials generated by households.

RETURN ON INVESTMENT (ROI)

A ratio that measures the profitability of an investment by comparing the gain or loss to its cost. It helps assess the potential return of investments in stocks, business ventures, etc.¹⁴

REVERSE LOGISTICS

Reverse logistics is the process of managing the physical flow of materials and products from end-users back to the value chain with the aim of extending their life cycle, maximising value and minimising waste.

SUPPLY CHAIN

The system encompassing the entire process of producing and delivering a product, from sourcing raw materials to manufacturing, inventory management, distribution and delivery to the final consumer.

VALUE CHAIN

The value chain encompasses not only the physical supply chain but the full range of activities involved in creating a product or service, from initial design and development through raw materials, production, marketing, after-sales service and end-of life management aimed at adding value at each step.

5R'S OF REVERSE LOGISTICS

The 5Rs of reverse logistics are returns, recapture, remanufacturing, reuse, and recycling. These principles guide the process of managing product returns efficiently, extending product life cycles, reducing waste and minimising environmental impact.

REFERENCES

- 1 PWC (2023). *The Circular Economy Transition for Asia Pacific*. Available from:
<https://www.pwc.com/gx/en/issues/esg/esg-asia-pacific/the-circular-economy-transition-for-asia-pacific.html#>
- 2 Ellen MacArthur Foundation (2021). *Circular business models: redefining growth for a thriving fashion industry*.
- 3 Global Fashion Agenda, United Nations Environment Programme (2024). *Fashion Industry Target Consultation*.
- 4 Ibid
- 5 Beumer Group (n.d). *The Challenges of Reverse Logistics in Fashion E-Commerce*. Available from:
<https://www.beumergroup.com/knowledge/wd/reverse-logistics/>
- 6 Circle Economy (2023). *The Circularity Gap Report 2023*.
- 7 Fashion Revolution (2023). *Fashion Transparency Index 2023*.
- 8 H&M Group (2024) *Sustainability Disclosure 2023*.
- 9 ThredUp (2024). Resale report.
- 10 Economist Impact (2022). *Data point: the case for circular and regenerative fashion*. Available from:
<https://impact.economist.com/sustainability/circular-economies/data-point-3-the-case-for-circular-and-regenerative-fashion#>
- 11 Fashion Revolution (2020). *#whatsinmyclothes: The Truth Behind the Label*. Available from:
<https://www.fashionrevolution.org/whatsinmyclothes-the-truth-behind-the-label/>

12 Clean Clothes Campaign (n.d). *Climate Change*. Available from:
<https://cleanclothes.org/climate-change>

13 Ellen MacArthur Foundation (2020). *Vision of a circular economy for fashion*.

14 Investopedia (n.d.) ROI: *Return on Investment Meaning and Calculation Formulas*. Available from:
<https://www.investopedia.com/articles/basics/10/guide-to-calculating-roi.asp>



WWW.GLOBALFASHIONAGENDA.ORG



Supported by



MAERSK