NYU STERN

Center for
Sustainable Business

The Business Case for Sustainable Apparel

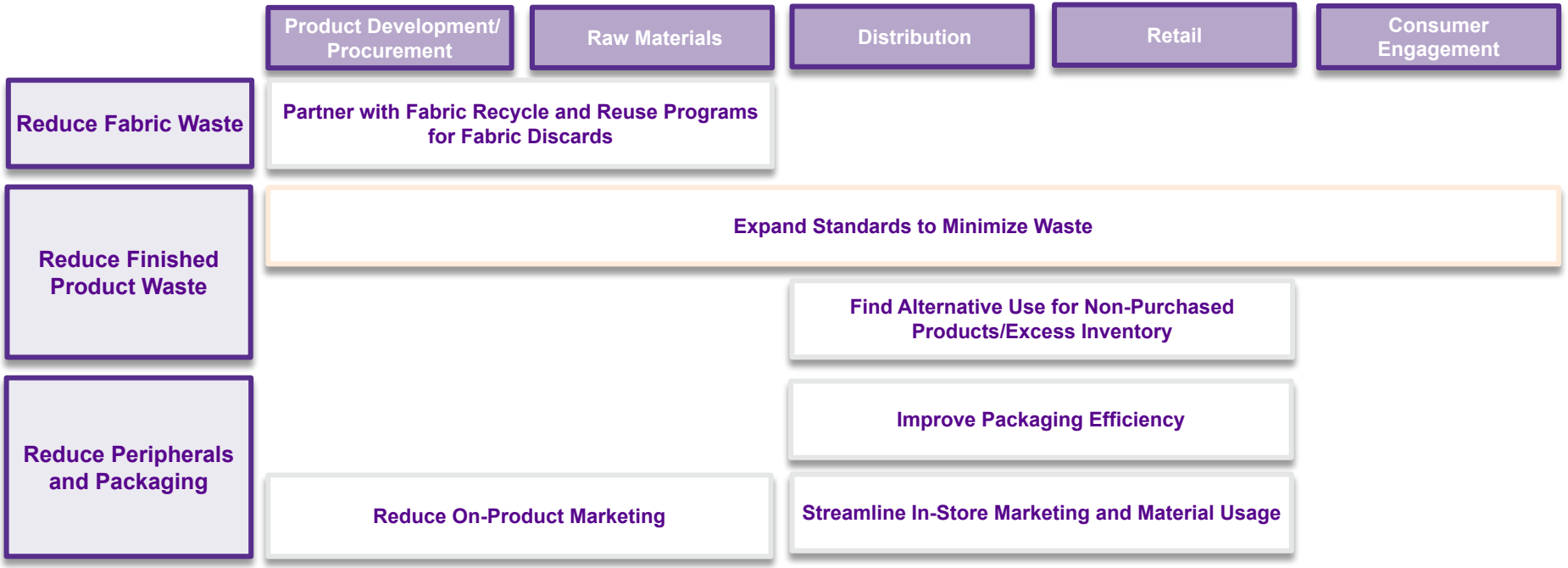
Strategy for Investing in Reduction of Material Waste

Phase 1: December 2020

Phase 2: April 2021

Investing in Reduction of Material Waste*

*Includes Fabric, Packaging, Consumer



Investing in Reduction of Material Waste

Overview of Sustainability Strategy and Relevant Impact Categories

In the following slides, we will be focusing on benefits from the *Investing in Reduction of Material Waste* sustainability strategy, which are categorized based on the relevant impact categories highlighted below

Sustainability Strategy Definition

Investing in Reduction of Material Waste	**Company implements practices to mitigate waste in areas such as fabric, consumer clothing, peripherals, and packaging**

Relevant Impact Categories

Relevant Impact Categories	Benefits that…
Operational Efficiency (OE)	Optimize corporate and supply chain efficiencies to lower cost and increase profits
Innovation (IN)	Create new revenue streams using sustainable business models
Customer Loyalty (CL)	Attract an increasing community of conscious buyers & consumers, while reducing retention costs
Employee Relations (ER)	Improve employee workplace culture and retain talent
Risk Management (RM)	Encourage resilience within the supply base by decreasing supplier dependency
Sales & Marketing (SM)	Increase volume of sales through brand and marketing policies
Media Coverage (MC)	Increase a company's media presence with the development of both traditional and social media content
Stakeholder Engagement (SE)	Improve goodwill amongst the broader stakeholder community (i.e. NGOs)
Supplier Relations (SR)	Improve upon the relationships between the company and its suppliers

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Overview of Benefits and Monetization Methods (1/3)

Practice	Sub-Practice	Proposed Benefits	Impact Categories	Proposed Monetization Methods	Financial Impact Priority
Reduce Fabric Waste	Partner with Fabric Recycle and Reuse Programs for Fabric Discards *Ex.* *Fabscrap* *Geocycle*	Reduced waste hauling and tipping fees, given partnership for handling of fabric discards	OE	Calculate cost differential between waste disposal & associated fees if managed by corporate locations and waste disposal & associated fees if managed by a recycle or reuse partner to achieve avoided cost savings	✓
		Reduced cost for storage facilities to house excess fabric waste including but not limited to fabric roles, swatches, and mutilated samples	OE	Calculate cost differential between storage needs for excess fabric and waste disposal & associated fees if managed by a recycle or reuse partner to achieve avoided cost savings	
		Increased administrative efficiencies by dealing with less fabric waste (including less handling and logistics)	OE ER	Calculate cost differential on an annual basis of hours used to organize fabric waste before and after partnering with reuse and recycle fabric discard programs to achieve cost savings of annualized salaries	

✓ **= If implemented, this benefit can realize substantial financial impact**

Investing in Reduction of Material Waste
Overview of Benefits and Monetization Methods (2/3)

Practice	Sub-Practice	Proposed Benefits	Impact Categories	Proposed Monetization Methods	Financial Impact Priority
Reduce Finished Product Waste	Expand Standards to Minimize Waste	Reduced product development costs, given less waste (due to wider range of product standards)	OE	Calculate cost differential between product development costs before and after expanded product standards to achieve cost savings and compare against decrease in FOB	✓
		Reduced operating costs (such as waste hauling and tipping fees), given less waste due to expanded product standards	OE	Calculate cost differential between waste disposal & associated fees before and after reduction of product waste (rejected goods) from expanded product standards in order to achieve avoided cost savings **Company should achieve pass-through savings in FOB* **Reduced operating costs based on reduction of product waste to manage*	✓
		Increased sales from opportunity to sell goods within expanded standard **Expanded standards would include goods that would otherwise be discarded due to not meeting standards, such as color is too light after garment dyed or dying defect*	SM	Calculate annual profit from selling products before and after standards have been expanded: annual revenue minus costs associated with specified product (such as marketing costs) **Examples includes selling and marketing specified products as a 'limited quantity' such as a color that is too light and alternatively would have been rejected before expanded standards.*	✓

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Overview of Benefits and Monetization Methods (2/3 Cont.)

Practice	Sub-Practice	Proposed Benefits	Impact Categories	Proposed Monetization Methods	Financial Impact Priority
Reduce Finished Product Waste	Find Alternative Use for Non-Purchased Products/Excess Inventory **This sub-practice can be applicable for in-house partnership with manufacturers and/or third-party programs*	Revenue from Unused/Unsold Products **Alternative uses could include selling product to be used in other industries such as insulation or as finished product goods* **For strategic recommendations, working with third-parties is beneficial but there is upside to selling in-house – [see below]*	INN	Calculate annual profit from selling non-purchased/excess inventory: annual revenue from program minus costs associated with selling of product (i.e., processing, marketing, if any)	✓
		Increased sales from creating alternative uses for non-purchased products/excess inventory **Alternative uses could include selling finished product goods in-house at a discount or leverage as a marketing tool and giveaway excess inventory to generate increase customer acquisition*	CL SM	Calculate annual profit from selling non-purchased/excess inventory before and after alternative uses have been implemented: annual revenue minus costs associated with specified product (such as marketing costs and COGS with discount sale price or giveaway)	✓
		Reduced Excess Inventory for Tax Deduction **Tax-deductible donation of finished product wearable goods*	RM	Calculate differential of annual net income before and after-tax deduction and reduced COGS to achieve avoided cost savings **Reduction in SG&A costs also included based on reduced storage for excess inventory through donation of goods*	✓

Investing in Reduction of Material Waste
Overview of Benefits and Monetization Methods (3/3)

Practice	Sub-Practice	Proposed Benefits	Impact Categories	Proposed Monetization Methods	Financial Impact Priority
Reduce Peripherals and Packaging	Improve Packaging Efficiency **Includes more compact packaging and peripherals in size as weight as well as selling more products together to reduce packaging per item*	Reduced material costs associated with reduced and more compact packaging and peripherals (applicable to polybags, box liners, and boxes, removal of paper slips/invoices included in DTC fulfillment order) *Both vendor-procured and DC	OE	Calculate the cost differential between reduction in packaging & peripheral material costs (based on reduced size of product – folded or compressed, reduced packaging thickness, and elimination of redundant box liners where feasible, using bags instead of boxes) and packaging & peripheral costs for the same quantity of products sold separately to achieve cost savings **Company should achieve pass-through savings in FOB through vendor-procured improved packaging efficiency*	✓
		Reduced waste hauling and tipping fees, given reduced waste disposal needs	OE	Calculate the cost differential of waste disposal & associated fees before and after transition to improved packaging efficiency (the aggregate of vendor and DC) to achieve avoided cost savings **Company should achieve pass-through savings in FOB through vendor-procured improved packaging efficiency*	
		Increased administrative efficiencies due streamlining packaging process/methods with less materials and smaller sized product/packaging easier to handle)	OE	Calculate the cost differential of DC labor productivity (output of goods, i.e. orders filled by number of hours/workers) before and after improved packaging efficiency	✓

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Overview of Benefits and Monetization Methods (3/3 Cont.)

Practice	Sub-Practice	Proposed Benefits	Impact Categories	Proposed Monetization Methods	Financial Impact Priority
Reduce Peripherals and Packaging	Improve Packaging Efficiency	Reduced logistics costs due to reduction in warehouse capacity needs (based on more compact packaging)	OE	Calculate cost differential of logistics (i.e. DC warehouse) before and after transition to improved packing efficiency (smaller size and weight of shipments) to achieve avoided cost savings	✓
		Reduced transportation costs (by using more compact packaging)	OE	Calculate cost differential of shipping costs before and after transition to improved packing efficiency (smaller size and weight of shipments) to achieve avoided cost savings	✓
		Reduced costs associated with reduction of periphery and packaging materials through products sold together *In-store and/or by Mail	OE	Calculate the cost differential between reduction in packaging & peripheral material costs for product sold together and packaging & peripheral costs for the same quantity of products sold separately to achieve cost savings	
		Reduced transportation costs (by shipping more items per delivery)	OE	Calculate cost differential of shipping costs before and after transition to shipping products sold together (larger shipment per customer vs incremental smaller shipment) to achieve avoided cost savings	

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Overview of Benefits and Monetization Methods (3/3 Cont.)

Practice	Sub-Practice	Proposed Benefits	Impact Categories	Proposed Monetization Methods	Financial Impact Priority
Reduce Peripherals and Packaging	Reduce On-Product Marketing (such as Hangtags) ** Company should also focus on sustainable on-product marketing, such as washable dyes, non-toxic and biodegradable in order to reduce waste – links up to Investing in Material Sourcing*	Reduced materials costs based on reduction of on-product marketing (such as hangtags and excessive branding/labels)	OE	Calculate the cost differential before and after the reduction of on-product marketing (included hangtags, main and decorative labels such as backpatches) to achieve cost savings	✓
		Increased administrative efficiencies due to reduction of on-product marketing (less materials to handle throughout the production process)	OE	Calculate cost differential of hours on an annual basis used to order, organize, and apply on-product marketing before and after reducing on-product marketing to achieve cost savings based on annualized salaries	
	Streamline In-Store Marketing and Material Usage	Reduced material costs associated with duplicative or unnecessary in-store marketing (such as seasonal signage made of high-impact materials) and material usage (such as polybags and hangers)	OE	Calculate the cost differential between store packaging and peripheral costs with and without the elimination of unnecessary packaging and peripherals (including hangers, polybags, signage) minus associated costs (i.e. increased costs for higher quality/more durable goods such as hangers) to achieve cost savings	✓
		Reduced waste hauling and tipping fees, given less in-store marketing and peripheral waste ** Company should use sustainable materials for seasonal signage, such as biodegradable inputs, based on the short-term duration of usage in order to achieve greatest impact of reduction in waste disposal*	OE	Calculate cost differential between waste disposal & associated fees before and after streamline of in-store Marketing and Material usage in store to achieve avoided cost savings	