Overview of the Return on Sustainability Investment ("ROSI") Methodology & Collaboration

Phase 1: December 2020
Phase 2: April 2021
March 2022
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Executive Summary

Apparel companies are leveraging 8 strategies to positively impact their financial performance and drive better outcomes for environment and society

- Strategies identified include circularity and innovation, investments in employee and supplier well-being, and improving energy management for brand partners
- Financial value accruing to companies in areas such as greater employee productivity and retention, improvements in sales & marketing, lower customer acquisition costs, and reduction in transportation costs
- One company found a $1.6M in annual savings by prioritizing lower carbon distribution methods; another identified $34M in annual savings from investments in employee well-being

In this presentation we share our novel Apparel Industry Sustainable Strategies Framework, several case narratives, and monetization tools.
ROSİ™ Introduction and Methodology Overview
Sustainability Creates Financial Value That is Not Being Tracked or Monetized

- Numerous studies find a positive correlation between corporate performance on material ESG issues and corporate financial performance.
- However, individual corporations are not tracking the financial returns on their sustainability strategies.

- This means both corporate and investor decision-making is weakened by the lack of relevant financial information.
- The challenge: how to measure the return on sustainability investment to enable transparency for both corporation management and investors.
- By determining the quantitative value, there is opportunity for expanded investment in sustainability initiatives.
Most Companies & Investors are not Monetizing the Return on Sustainability Investment

For the following reasons, the Return on Sustainability Investment is typically not calculated; leaving financial value unlocked and limiting the opportunity for continued investments in sustainability

- Availability and quality of ESG Data
- Sustainability strategies are not tied to total return from the outset
- There are many different sustainability strategies (ESG); strategy and execution sit within different units
- Financial benefits are tracked differently (if at all) by different units and are not aggregated
- Some benefits are intangible and difficult to measure
- It is not clear to the Financial function that there is significant financial benefit that would justify tracking ROSI™
- Difficult to monetize risk avoided due to sustainability investments

Numerous studies find a positive correlation between corporate performance on material ESG issues and corporate financial performance. However, individual corporations are not consistently tracking the financial returns on their sustainability strategies. The ROSI™ Framework allows companies to measure tangible and intangible benefits of their sustainability strategies and make the business case for sustainability investment.
The framework captures the ROSI™ methodology created by the NYU Center for Sustainable Business.

By embedding ESG risk and opportunities, the return on sustainable investment can be quantified, delivering the possibility of both financial value and positive societal impact.
Benefits of the ROSI™ Framework

Like other robust ROI processes, ROSI™ can help corporation and investors

**Corporations**

- Support decision-making on individual initiatives or among alternative courses of action
- Relevant for monetizing the costs and benefits of BAU, ongoing projects, and/or potential new initiatives
- Flexible in addressing common forecasting challenges (e.g., those related to: data availability; data quality/credibility; uncertainty; attribution; allocation of benefits; etc.)

**Investors**

- Map material sustainability strategies by sector and types of practices that create value
- Useful for due diligence screening for potential investments
- Provide questions to ask companies for research before owning stock/stake) and engagement (after owning stock/stake) purposes
- Incorporate into valuation models when determining company intrinsic value
### ROSI™ Methodology and Collaboration Process

For project collaborations, NYU Stern CSB works with company partners to implement the five-step ROSI™ framework process.

<table>
<thead>
<tr>
<th>Step</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Identify Material ESG Issues &amp; Strategies</td>
</tr>
<tr>
<td>2</td>
<td>Assess Practices</td>
</tr>
<tr>
<td>3</td>
<td>Define Benefits</td>
</tr>
<tr>
<td>4</td>
<td>Qualify Benefits</td>
</tr>
<tr>
<td>5</td>
<td>Monetize</td>
</tr>
</tbody>
</table>

1. Identify material sustainability challenges, (referencing frameworks such as SASB and GRI) and how the business is addressing associated risks and/or opportunities.

2. Determine which practices have been or can be implemented to address sustainability strategies.

3. Define the types of economic benefits that could be expected from the changed practices through the ROSI™ mediating factors.

4. Estimate the magnitude of those benefits and when they could be realized.

5. Translate the benefits into economic value, stress test, and then forecast ROI.
**Overall approach across industries using ROSI**

**Companies and Investors** can leverage industry-specific frameworks and tools for monetization casework. Additionally, companies can contribute to shifting industries by contributing to tools and cases. The NYU CSB implements the following approach using ROSI™ to collaborate with partners within various industries.

<table>
<thead>
<tr>
<th>FRAMEWORK</th>
<th>CASES</th>
<th>TOOLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>We create industry specific thought leadership in quantifying benefits of material sustainability initiatives</td>
<td>We partner with companies on cases linked to our identified strategies to prove the continued viability of the model</td>
<td>We created excel tools focused on targeted practices to monetize and capture benefits for continued use after completion of the collaboration</td>
</tr>
</tbody>
</table>

*Help companies understand which strategies and practices to prioritize*

*Provides a narrative overview and detailed accounting of our monetization method and results*

*Offers practical frameworks for companies to uncover benefits at their own organizations. May feed into other industry-wide or ESG frameworks like SASB.*
NYU Stern CSB has collaborated with over 20 corporate and research partners to date on building and implementing ROSI™ including companies listed below:
ROSI™ Apparel Overview
The Apparel Industry faces numerous environmental challenges

Apparel manufacturing has significant environmental impacts spanning land use, water pollution, air pollution, and bio-diversity among others.
Apparel manufacturing faces challenges with child & forced labor, low wages in retail and factories, harmful chemical exposure, and poor safety practices, among others.
The industry also faces numerous threats and disruptions

Challenges in traditional brick and mortar, the rise of ecommerce and the COVID pandemic create new challenges for the industry.
The Opportunity to Leverage ROSI™ for the Apparel Industry

Despite enormous challenge, the apparel industry is prioritizing and investing in sustainability strategies to address material ESG issues, innovate and discover new business models, and drive financial performance.

The challenge is how to measure and quantify these investment to assess the value of benefits that can be accrued through more sustainable business practices.

Through partner sponsorship with HSBC, NYU CSB delivered the following project objectives based on the ROSI™ methodology. The project served as the foundation for the CSB’s apparel work launching the Apparel Industry Sustainable Strategies Framework; which provides sustainability strategies and practices across the value chain.

- Leverage the NYU Stern CSB Return on Sustainability Investment (ROSI) methodology to help estimate the tangible and intangible benefits accruing to apparel companies by prioritizing sustainability.
- Develop a comprehensive framework that lays out the key strategies, practices, and sub-practices companies are prioritizing.
- Map associated benefits, articulate monetization methods, and quantify benefits.
- Develop case studies with partners.
- Develop tools to help companies undertake this work at their own organizations and to feed into existing industry tools like HIGG Index or ESG frameworks like SASB or GRI.
NYU CSB conducted desk research and primary research with industry associations, brands, and parts of the value chain that contributed to an in-depth understanding of the leading apparel industry sustainability strategies and the complexities of the industry at large.

NYU CSB collaborated with corporate partners to answer a variety of pertinent sustainability-related questions, including:

- What are the monetary and intangible benefits of incorporating and promoting a sustainably-focused corporate culture?
- What are the monetary and societal benefits of transitioning to more carbon-efficient transportation modes of product shipments?
- What are the monetary and intangible benefits of implementing and promoting circular business models (and other forms of innovation) for current and prospective customers?

*Project supported by HSBC, the sponsor of NYU Stern CSB’s sustainable apparel project
Case Studies: Participants Involved & Focus Areas Continued

Through desk research and interviews with project corporate partners, the key areas were determined that could be used to derive the Return on Sustainable Investment specific to each company and their existing practices.

1. Investing in Employee and Supplier Well-Being
2. Implementing Product Take-Back Programs
3. Reformation
4. Implementing Product Take-Back Programs
5. Investing in Circularity and Innovation
6. Shifting away from Air Transportation
7. Investing in Circularity and Innovation
8. Investing in Employee and Supplier Well-Being
9. Investing in Indirect Benefits
10. REI Co-op
11. NYU Stern Center for Sustainable Business
ROSI™ Apparel Work Completed & Looking Ahead

Through the sponsorship of HSBC and work with corporate partners, NYU CSB completed the following:

**FRAMEWORK**  We built the framework around 8 strategies, housing 25 practices and 66 sub-practices.

**CASES**  We partnered with companies on several cases linked to our identified strategies.

**TOOLS**  We created 18 excel tools focused on the circularity and innovation strategy to monetize and capture benefits.

By creating and disseminating a sustainable apparel framework, case studies in collaboration with apparel partners, and industry specific monetization tools, **NYU Stern’s CSB aims to encourage the development of sustainability initiatives across the industry.**

Future work will include developing additional monetization tools and cases.  
**We welcome partnership on future phases!**
ROSI™ Apparel Framework
In 2020, with funding from HSBC, we launched a framework with the apparel industry. We found that apparel companies are driving sustainability improvements using several strategies:
Defining the Sustainability Strategies

- **Reducing Chemical Impact**: Company reduces the impact of chemicals in its supply chain.

- **Improving Water Management**: Company focuses on water management through increased water efficiency, conservation, and reduction of wastewater quantity, while improving wastewater quality.

- **Improving Energy Management**: Company focuses on practices to decrease greenhouse gas emissions by focusing on improving energy efficiency, changing distributions modes, and increasing use of renewable energy.

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

- **Implementing Sustainable Raw Material Sourcing**: Company spurs innovation of new materials development and substitutes more sustainable materials in existing products and packaging.

- **Investing in Circularity and Innovation**: Company invests in innovation to achieve new circular business models which focus on product takeback and innovative design methods.

- **Investing in Employee and Supplier Well-Being**: Company improves labor conditions in their supply chain and across their corporate workforce through practices that directly and indirectly benefit the health and safety of the workforce.

- **Investing in Sustainable Brand Marketing and Communications**: Company invests in marketing and education around sustainability through engagement campaigns and branding.
Identified Sustainability Practices and Sub-practices

Through our research, we identified key sustainability practices and sub-practices companies implement to achieve their sustainability strategies.

The sub-practices provide specific methods to execute the sustainability practices designated within each strategy.

*The following diagram illustrates the methodology*

To the right is an example of how practices and corresponding sub-practices expand under the strategy of Reducing Chemical Impact.
We used a value chain approach to assess apparel sustainability efforts and map out the opportunities.

By differentiating between corporate and supply chain, we connected the practices within the sustainability strategies to the corresponding area(s) within the value chain.

We then determined where the responsibility lies and who could implement the practices, as well as the interdependencies helping to fortify a strategy that can drive change.

A challenge in implementation of key sustainability initiatives is understanding the drivers. With the complexity of the apparel system, the value chain is vital to determine the stakeholders for each practice as in some cases as many stakeholders and partnerships are often needed.
Sustainability Sub-practices mapped out along the value chain

We mapped **sub-practices** to the relevant parts of the apparel value chain to determine the drivers and impacted stakeholders.

Each strategy includes sub-practices under each relevant component of the value chain, (if not relevant to a part of the value chain, it is excluded).

Please see diagram below of the framework layout, which is illustrated for each strategy in the *Apparel Industry Sustainable Strategies Framework*.

Compliance / enforcement practices are not explicitly listed in this framework but should be considered when implementing the eight strategies.
ROSI™ Walk-through Example for Investing in Circularity and Innovation
The sub-practice of **Implement Take-Back Programs** along with **Encouraging Participation**, whether taking product back to a company or resale purchases, was determined as most material under the practice of **Invest in Product Take-Back Programs** (as highlighted to the left)

The value chain most impacted with the implementation was Distribution, Retail, and Consumer Engagement.
Using the five-step ROSI™ framework process, the benefits, mediating factors and monetization methods were determined.

Each sub-practice led to a benefit (or multiple benefits) that intersect with different areas along the value chain. The proposed monetization methods captured the impacted areas and determined the value of the return on sustainability investments.
Overview of Relevant Mediating Factors and Benefits for *Investing in Circular Product Take-Back Programs*

Benefits are quantified by mediating factors from the implemented sub-practices as illustrated below:

<table>
<thead>
<tr>
<th>Relevant Mediating Factors</th>
<th>Benefits that…</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation (INN)</td>
<td>Create new revenue streams using sustainable business models</td>
</tr>
<tr>
<td>Customer Loyalty (CL)</td>
<td>Attract an increasing number of conscious buyers &amp; consumers, while reducing retention costs</td>
</tr>
<tr>
<td>Sales &amp; Marketing (SM)</td>
<td>Increase volume of sales through brand and marketing policies</td>
</tr>
<tr>
<td>Media Coverage (MC)</td>
<td>Increase a company’s media presence with the development of both traditional and social media content</td>
</tr>
</tbody>
</table>

*Source: NYU Stern Center for Sustainable Business*
Overview of Circularity Monetization Tools

Using the ‘Implement Product Take-Back Programs for Resale’* practice as an example – over the next few slides, we illustrate the monetization of the following three benefits:

1. **New purchase sales:** Sales generated by the parent company** from customer participation in resale programs
   - E.g., a customer who gives in a used item of clothing (to the resale program) is provided a gift card to spend at the parent company; the customer spend is defined as ‘new purchase sales’

2. **Lower customer acquisition costs:** Cost savings due to attraction of “free” resale customers to parent company products

3. **Unpaid earned media:** Value of “free” media generated due to resale program visibility

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*Benefit monetization examples assume it’s an in-house resale program

**Parent company owns the in-house resale program but has separate benefits to monetize
Case 1: By Implementing the RENEW Circular Take-Back Program, EILEEN FISHER Accrues Financial and Brand-related Benefits

<table>
<thead>
<tr>
<th>Benefits &amp; Associated Costs Explored</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit from RENEW program</td>
</tr>
<tr>
<td>Incremental EILEEN FISHER profit from RENEW program</td>
</tr>
<tr>
<td>Customer acquisition cost reduction</td>
</tr>
<tr>
<td>Increase in earned media</td>
</tr>
</tbody>
</table>

Total net benefit of **$1.8 million for 2019**

NYU Stern CSB collaborated with Eileen Fisher to monetize the implementation of a Circular Take–Back Program.
NYU Stern CSB collaborated with Reformation to monetize the implementation of a Circular Take-Back Program.

**Benefits & Associated Costs Explored**

- Profit from partnership program
- Incremental Reformation profit from new customer base
- Customer acquisition cost reduction
- Increase in earned media

**Total net benefit of $1.9 million for 2019**
Monetization Tools for Industry Application: Circularity Examples

With the development of template monetization models, apparel companies can leverage these tools for future sustainable investment decisions:

1. New purchase sales
2. Lower customer acquisition costs
3. Unpaid earned media
Example 1: New Purchase Sales Template Monetization Model

**Benefit:** New purchase sales for the parent company from participation in resale programs

### Sustainable Apparel ROSI Monetization
Invest in Circular Product Take-Back Programs
*Assuming in-house resale programs
**All figures are illustrative**

Sub-practice: Encourage Resale Participation
**Benefit:** New purchase sales from participation in resale programs

#### DATA INPUTS: Company Data & Assumptions

<table>
<thead>
<tr>
<th></th>
<th>Year 0</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
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<tbody>
<tr>
<td>Customer Behavior Data</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Number of Resale Program Customers who Purchase Company Products</td>
<td>-</td>
<td>600</td>
<td>650</td>
<td>670</td>
<td>690</td>
<td>710</td>
</tr>
<tr>
<td>Average Spending per Customer</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Number of Transactions</td>
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<td>124</td>
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<td>131</td>
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<td>IF APPLICABLE: Average Shopping Credit (or Other Incentive) per Transaction</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Additional Costs to Consider</td>
<td>$</td>
<td>72</td>
<td>75</td>
<td>77</td>
<td>80</td>
<td>82</td>
</tr>
<tr>
<td>Rate Assumptions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Growth Rate</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Discount Rate</td>
<td></td>
<td></td>
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<td>8%</td>
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</tbody>
</table>

#### CALCULATED: Incremental Profit from Sales Spurred by the Existence of Resale Programs

<table>
<thead>
<tr>
<th></th>
<th>Year 0</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue Components</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Resale Program Customers who Purchase Company Products</td>
<td>-</td>
<td>600</td>
<td>650</td>
<td>670</td>
<td>690</td>
<td>710</td>
</tr>
<tr>
<td>Average Spending per Customer</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Revenue from Purchasing Company Products</td>
<td>$</td>
<td>65,000</td>
<td>78,000</td>
<td>82,750</td>
<td>87,790</td>
<td>93,136</td>
</tr>
<tr>
<td>Total Revenue</td>
<td>$</td>
<td>65,000</td>
<td>78,000</td>
<td>82,750</td>
<td>87,790</td>
<td>93,136</td>
</tr>
<tr>
<td>Cost Components</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Transactions</td>
<td>$</td>
<td>600</td>
<td>650</td>
<td>670</td>
<td>690</td>
<td>710</td>
</tr>
<tr>
<td>IF APPLICABLE: Average Shopping Credit (or Other Incentive) per Transaction</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>IF APPLICABLE: Cost of Shopping Credit (or Other Incentive) Given to Customer</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Additional Costs to Consider</td>
<td>$</td>
<td>43,200</td>
<td>48,750</td>
<td>51,719</td>
<td>54,869</td>
<td>58,210</td>
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<tr>
<td>Total Cost</td>
<td>$</td>
<td>43,200</td>
<td>48,750</td>
<td>51,719</td>
<td>54,869</td>
<td>58,210</td>
</tr>
<tr>
<td>Incremental Profit</td>
<td>$</td>
<td>22,800</td>
<td>29,250</td>
<td>31,031</td>
<td>32,921</td>
<td>34,926</td>
</tr>
</tbody>
</table>

*Assumes one unique customer per transaction and assumes, if applicable, shopping credit as the incentive*

#### FINAL RESULTS

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<tr>
<th></th>
<th>Year 0</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
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<tbody>
<tr>
<td>Total Net Benefits</td>
<td>$</td>
<td>22,800</td>
<td>29,250</td>
<td>31,031</td>
<td>32,921</td>
<td>34,926</td>
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<tr>
<td>NPV</td>
<td>$</td>
<td>118,790</td>
<td></td>
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</table>

*Figures are illustrative*
Example 2: Lower Customer Acquisition Costs Template Monetization Model

**Benefit:** Lower customer acquisition costs, given attraction of resale customers to parent company products

*Figures are illustrative*
Example 3: Unpaid Earned Media Template Monetization Model

**Benefit:** Unpaid earned media for the parent company due to resale program visibility

*Sustainable Apparel ROSI Monetization*

*Invest in Circular Product Take-Back Programs*
*Assuming in-house resale program*
**All figures are illustrative**

*Sub-practice: Encourage Resale Participation*
*Benefit: Unpaid earned media*

**DATA INPUT: Company Data & Assumptions**

<table>
<thead>
<tr>
<th>Year</th>
<th>Year 0</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
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</thead>
<tbody>
<tr>
<td><strong>Media Components</strong></td>
<td>$</td>
<td>$1,150,000</td>
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<td>Average Annual Paid Media Cost</td>
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<td>5</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>8</td>
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</tbody>
</table>

**Rate Assumptions**

<table>
<thead>
<tr>
<th>Year</th>
<th>Year 0</th>
<th>Year 1</th>
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<tbody>
<tr>
<td><strong>Growth Rate</strong></td>
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<tr>
<td><strong>Discount Rate</strong></td>
<td>8%</td>
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<td>8%</td>
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**CALCULATED: Unpaid Earned Media**

<table>
<thead>
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<th>Year</th>
<th>Year 0</th>
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<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Average Cost of Media Placement</strong></td>
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<td>$15,584</td>
<td>$15,584</td>
<td>$15,584</td>
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<tr>
<td><strong>Number of Unpaid Earned Media Placements (Due to Resale Program Visibility)</strong></td>
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<td>5</td>
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<td>7</td>
<td>7</td>
<td>8</td>
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<td><strong>Avoided Cost for Earned Media</strong></td>
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<td>$76,667</td>
<td>$109,091</td>
<td>$112,364</td>
<td>$115,735</td>
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</table>

**Total Avoided Cost for Earned Media**

<table>
<thead>
<tr>
<th>Year</th>
<th>Year 0</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
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<td>$109,091</td>
<td>$112,364</td>
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<td>$119,207</td>
<td></td>
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**FINAL RESULTS**

<table>
<thead>
<tr>
<th>Year</th>
<th>Year 0</th>
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<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Benefits</strong></td>
<td>$</td>
<td>$76,667</td>
<td>$109,091</td>
<td>$112,364</td>
<td>$115,735</td>
<td>$119,207</td>
</tr>
<tr>
<td><strong>NPV</strong></td>
<td>$</td>
<td>$419,912</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
</tbody>
</table>

*Figures are illustrative*
Additional Case Study
Findings with Apparel Partners
Case 3: EILEEN FISHER Finds Financial Cost Savings and Societal Benefit by Shifting Away from Air Transportation

NYU Stern CSB collaborated with Eileen Fisher to monetize shifting its transportation mix away from air and towards sea and trucking transports.

**Transportation Cost Savings**

In 2019, the company spent ~$1.6 million less in transportation costs than in 2015.

**Societal Benefit**

From 2015 to 2019, the company achieved a cumulative societal benefit of ~$150,000* due to the reduction in its GHG emissions.

*Using $50 per MT CO\(_2\)e as the social cost of carbon*
Focusing on the Practice of Prioritizing Lower Carbon Distribution Methods

For the project collaboration with *Eileen Fisher*, NYU Stern CSB identified the Strategy of **Improving Energy Management**

Under the practice of **Prioritize Lower Carbon Distribution Methods**, the sub-practice of **Reduce Air Freight** was determined as most material (as highlighted above).

The value chain most impacted with the implementation was Raw Materials, Manufacturing, and Distribution.
## Overview of Sample Benefits and Monetization Methods for sub-practice of Reduce Air Freight

<table>
<thead>
<tr>
<th>Practice</th>
<th>Sub-Practice</th>
<th>Proposed Benefits</th>
<th>Mediating Factors</th>
<th>Proposed Monetization Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prioritize Lower Carbon Distribution Methods</td>
<td>Reduce Air Freight</td>
<td>Reduced transportations costs (by shifting transport towards sea and trucking)</td>
<td>OE</td>
<td>Calculate cost differential of shipping costs before and after shift in transport mode (from air to sea and trucking) to achieve avoided cost savings</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Increased Societal Benefit through a reduction in GHG emissions</td>
<td>SE</td>
<td>Calculate savings in societal benefit using the reduction of GHG emissions (from shift in transport mode) by the social cost of carbon</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reduced impact for future regulations on emissions</td>
<td>RM</td>
<td>Calculate differential of GHG emissions before and after shift in transport mode (from air to sea and trucking) and use NPV to determine future cost savings on estimated carbon and regulatory taxes</td>
</tr>
</tbody>
</table>

*Benefits are quantified by mediating factors from the implemented sub-practices as illustrated below -*  

**Operational Efficiency (OE)**  
Optimize corporate and supply chain efficiencies to lower cost and increase profits

**Stakeholder Engagement (SE)**  
Improve goodwill amongst the broader stakeholder community (i.e. NGOs)

**Risk Management (RM)**  
Encourage resilience within the supply base by decreasing supplier dependency
Case 4: REI’s Sustainability Program Delivers HR Results

NYU Stern CSB collaborated with REI to monetize investment in Employee Sustainability Programs

Employee Sustainability Program Benefits and Cost for 2019

- Reduced turnover and hiring costs
- Increased productivity amongst high performers
- Mission-aligned investments, including paid time off days

Total net benefit of $34 million*

*This figure is ~5% of payroll expenses
Focusing on the Strategy of *Improve Benefit Programs*

For the project collaboration with *REI*, NYU Stern CSB identified the Strategy of *Investing in Employee and Supplier Well-Being*

The sub-practice of *Invest in Indirect Benefits* was determined to be most material under the practice of *Improve Benefit Programs* as highlighted above.
Overview of Sample Benefits and Monetization Methods for sub-practice of *Invest in Indirect Benefits*

<table>
<thead>
<tr>
<th>Practice</th>
<th>Sub-Practice</th>
<th>Proposed Benefits</th>
<th>Mediating Factors</th>
<th>Proposed Monetization Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve Benefit Programs</td>
<td>Invest in Indirect Benefits (Environment, Work-Life Balance)</td>
<td>Increase in net benefits associated with programs such as employee well-being</td>
<td>ER</td>
<td>Calculate monetary benefit by assigning a value (such as # of days off) to a daily wage multiplier</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Increase in employee productivity due to investment in indirect benefits</td>
<td>ER</td>
<td>Calculate monetary increase by multiplying number of employees by average annual salary and then multiplying by industry standard productivity increase from investment in indirect benefits</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reduce costs associated with turnover rates</td>
<td>ER</td>
<td>Calculate turnover rate differential between company and industry standard turnover rates, then multiply by number of employees, annual salary, and turnover cost as a percentage of salary</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reduce costs associated with hiring</td>
<td>ER</td>
<td>Calculate turnover rate differential and multiply by the number of employees and the cost of hiring per employee</td>
</tr>
</tbody>
</table>

Benefits are quantified by mediating factor(s) from the implemented sub-practices as illustrated below -

**Employee Relations (ER)**

Improve employee workplace culture and retain talent
Press for NYU Stern CSB Apparel Work

Apparel Project Launch

HSBC, Eileen Fisher, REI on Driving Profits Through Sustainability

At the Bloomberg Sustainable Business Summit, CSB Director Tensie Whelan moderates a panel of participating project partners as they discuss Return on Sustainability Investment (ROSI) across the apparel industry and in their companies.

In the Press

The Business Case for Sustainable Apparel

There’s a New Apparel Sustainability Framework - and Eileen Fisher, Reformation, and REI Are on Board

Fashion Goes Green to Raise Capital

Resale’s contradiction: Selling ‘new’ on secondhand sites

Circular Business Model Lessons from IKEA, REI, and Eileen Fisher

VOGUE BUSINESS

GreenBiz
NYU Stern CSB offers in-depth resources on the apparel framework, including details by strategy, case studies with our apparel partners, and Excel monetization tools for download at our website.
Recent Thought Leadership from NYU Stern CSB (as of April 2021)

**ESG Research**

*Report: Determining the Financial Impact of ESG Investing*

Meta-studies examining the relationship between environmental, social, and governance ("ESG") and financial performance have a decades-long history. Almost all the articles they cover, however, were written before 2015. Those analyses found positive correlations between ESG performance and operational efficiencies, stock performance, and lower cost of capital. In collaboration with Rockefeller Asset Management, we examine the relationship between ESG and financial performance in more than 1,000 research papers from 2015 – 2020.

**Consumer Insights Research**

*Updated Sustainable Share Market Index*

In the latest installment of the Sustainable Share Market Index™ launched in 2019, NYU Stern CSB finds that sustainability-marketed products are responsible for more than half of the growth in consumer-packaged goods from 2015 to 2019, and that this growth continues despite the COVID-19 pandemic.

**Articles**

*Making a Better Business Case for ESG*

In a recent article in the Stanford Social Innovation Review, NYU Stern CSB Director Tensie Whelan explains how embedding ESG initiatives into core business strategy is not only good for profits, but also essential to customer allegiance and risk mitigation - as proven by ROSI.

*How to Talk to Your CFO about Sustainability*

By now most companies have committed to sustainability efforts—and yet many CFOs still see those efforts as a cost rather than a source of value. That makes it hard to unlock the internal financing needed to scale them up. Particularly now, as companies scrutinize budgets threatened by the COVID-19 pandemic, the ROSI analysis can help CFOs improve organizational finances through sustainability investments that create value for investors, employees, customers, and the world at large.

*Boards Are Obstructing ESG – at Their Own Peril*

Given recent developments in 2020, investors and chief executives now take ESG seriously in their decision making; however, one impactful group is lagging: corporate boards. Recent research conducted by NYU Stern CSB illustrates that many corporate boards have minimum ESG-related expertise, and many do not recognize the need to pay attention to material sustainability issues.
Acknowledgements
CSB contributors to the apparel project include Tensie Whelan, Sophie Rifkin, Rithu Raman, Kevin Eckerle, Elyse Douglas, and Randi Kroenthal-Sacco.

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Lastly, we thank our student assistants who made fantastic contributions to this endeavor. Our thanks go to Dylan Berry (MBA’19), Hannah Gotfredson (MBA-20), Ben Gottesdiener (MBA’20), Christine Tan (MBA’21) and Chana Rosenthal (EMBA’22).
Apparel Industry Sustainable Strategies Framework
Reducing Chemical Impact

- **Product Development/Procurement**
  - Invest in R&D to Develop Sustainable Manufacturing Processes

- **Raw Materials**
  - Substitute Bio-based alternatives for chemicals in dyes and materials
  - Invest in Circular Manufacturing Processes to reduce and reuse chemicals

- **Manufacturing**
  - Expand product offering to use more bio-based alternatives for chemicals and dyes in materials

**Reduce Chemicals in Manufacturing Process**

**Reduce Toxic Chemicals in Materials, Dyes, and Processing**

**Reduce Chemical Waste**
Improving Water Management

- **Product Development/Procurement**
  - Establish Internal Price on Water

- **Raw Materials**
  - Invest in Reduced-Water-Usage Solutions

- **Manufacturing**
  - Partner with NGOS on Watershed Replenishment Programs
  - Invest in Community Stewardship Watershed Programs
  - Invest in Wastewater Reduction programs
  - Invest in Improving Wastewater Quality

- **Consumer Engagement**

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**Improve Water Efficiency**

**Conserve Water Resources (Replenishment)**

**Improve Wastewater Management**
Improving Energy Management

- Product Development/Procurement
- Raw Materials
- Manufacturing
- Distribution
- Retail
- Consumer Engagement

- Reduce Greenhouse Gas Emissions
  - Invest and Source More from Renewable Energy Powered Facilities
- Invest in Energy Efficiency
  - Reduce Travel/Commuting
- Reduce Air Freight
  - Use more Sustainable-Certified Shipping and Trucking Companies

- Prioritize Lower Carbon Distribution Methods
  - Reduce Travel/Commuting
Investing in Reduction of Material Waste*

*Includes Fabric, Packaging, Consumer
Implementing Sustainable Raw Material Sourcing

**Improve Material Quality**
- Invest in Textiles using Fibers from Regenerative Agriculture/Carbon Sequestration
- Partner with Local and Artisanal Suppliers
- Increase Organic Material Content

*Integrate More Sustainable Raw Materials*
- Increase Reused and Recycled Content
- Increase Other Sustainable Certified Alternatives
- Invest in R&D to Develop Sustainable Alternatives

**Improve Material Packaging and Peripheral Sustainability**
- Increase Recycled Content of Peripherals in Packaging
- Invest in Biodegradable and Compostable Material Alternatives

*Make Incremental Improvements in material choices transitioning away from Spandex, Rayon, Viscose and other high-impact materials including emphasis on Animal Welfare*

**Make Incremental Improvements in material choices transitioning away from plastics and high-impact materials including emphasis on FSC Certification**

NYU Stern Center for Sustainable Business
## Investing in Circularity and Innovation

<table>
<thead>
<tr>
<th><strong>Invest in Circular Product Take-Back Programs</strong></th>
<th><strong>Invest in Circular Packaging Solutions</strong></th>
<th><strong>Invest in Circular Design and Innovative Use of Materials/Processes</strong></th>
<th><strong>Increase Product Usage and Longevity</strong></th>
<th><strong>Reduce Product Returns</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Use Digital Samples Instead of Physical Samples</td>
<td>Use Digital Fabric Sourcing</td>
<td>Design Product to Reuse Fabric Scraps and/or Deadstock</td>
<td>Invest in Improved E-Commerce Experience on Company Website</td>
<td>Increase On-Demand Manufacturing</td>
</tr>
<tr>
<td>Implement Product Take-Back Programs for Textile Recycling and Upcycling</td>
<td>Implement Product Take-Back Programs for Resale</td>
<td>Return Store Packaging to DC Program</td>
<td>Utilize Re-usable Direct to Consumer Packaging</td>
<td></td>
</tr>
<tr>
<td><strong>Consumer Engagement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Encourage Take-Backs for Products</td>
<td>Encourage Resale Participation</td>
<td>Encourage Proper Disposal for Packaging &amp; Peripheral Waste</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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NYU Stern Center for Sustainable Business
Investing in Employee and Supplier Well-Being

Ensure Fair Compensation/Increase Wages
- Close Pay-Equity Gap across Workforce
- Work with Suppliers to Improve Living Wage Standard
- Pursue Labor Certifications
- Increase Wages/Promote Flexible Scheduling
- Close Pay-Equity Gap across Workforce

Improve Workforce Diversity
- Train and Incentivize Managers to Hire and Provide More Diverse and Inclusive Work Environments
- Hire More Diverse Talent
- Create More Inclusive Work Environments
- Report on Diversity Metrics
- Train and Incentivize Managers to Hire and Provide More Diverse and Inclusive Work Environments
- Hire More Diverse Talent
- Create More Inclusive Work Environments
- Report on Diversity Metrics

Increase Employee Sustainability Training and Engagement
- Invest in Sustainability Training for Proficient Design Talent
- Invest in Training and Worker Skills
- Invest in Employee Sustainability Engagement Programs
- *Invest in Direct Benefits
- **Invest in Indirect Benefits
- *Healthcare, 401K, and more
- **Environment, Work-Life Balance

Improve Benefit Programs
- Invest in Sustainability Training for Proficient Design Talent
- Invest in Training and Worker Skills
- Invest in Employee Sustainability Engagement Programs
- *Invest in Direct Benefits
- **Invest in Indirect Benefits
- *Healthcare, 401K, and more
- **Environment, Work-Life Balance
Investing in Sustainable Brand Marketing and Communications*

*Includes Employees, Customers, and Other Stakeholders