NYU STERN

Center for Sustainable Business

BETA Version: We would appreciate any feedback as you use the tool, so we can continue to iterate and improve. Contact information is at the end of this deck.

Instructional Guide to:

ROSI™ Corporate Sustainability Value Creation Assessment Tool

Excel Tool Pre-read 2025

What's in this Guide?

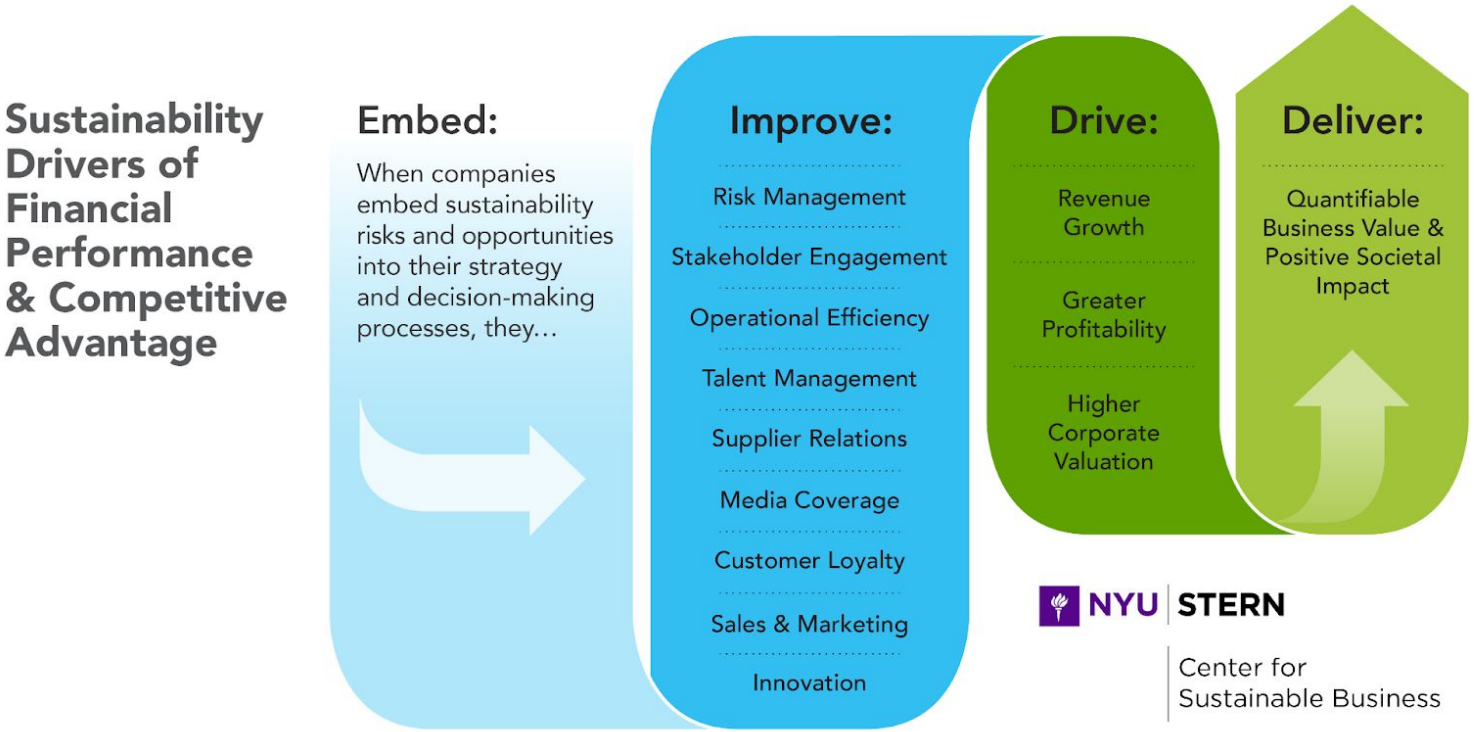
This guide provides a step by step process on how to populate the ROSI™ Corporate Sustainability Value Creation Assessment Tool. These instructions are also included in the tool, however users are recommended to begin with this guide and have it at hand for easy reference.

- The ROSI™ Framework and Implementation Process
- The ROSI™ Corporate Sustainability Value Creation Assessment Tool and Potential Applications
- Overview of How to Use the Tool
- Process Map Stage 1
- Process Map Stage 2
- Process Map Stage 3
- Next Steps

Overview of the ROSI™ Framework

CSB has developed our Return on Sustainability Investment (ROSI™) methodology to help corporate leaders identify and track the value creation linked to sustainability strategies, in order to build a better business case for both current and planned sustainability initiatives. Below are the nine value drivers.

Return on Sustainability Investment (ROSI™) Framework



By embedding sustainability risk and opportunities in core business strategy, financial value can be unlocked and monetized, delivering profits and positive societal impact

The ROSI™ Implementation Process

The ROSI™ framework is operationalized using a five step process described below:

NYU Stern CSB works with company research partners using a 5-Step Methodology

1 Identify Material Sustainability Issues and Strategies

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

2 Assess Practices

Determine which practices have been implemented to address sustainability strategies

3 Define Benefits

Define the types of economic benefits that could be expected from the changed practices through the ROSI value drivers

4 Quantify Benefits

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

5 Monetize

Translate the benefits into economic value, stress test, and then forecast ROI

What is the Corporate Sustainability Value Creation Assessment Tool?

The Corporate Sustainability Value Creation Assessment Tool is a **three-part assessment and strategy** tool that helps analyze company performance on material sustainability issues and provides guidance on which strategies and practices can drive financial value for the company using CSB's ROSI™ framework. The tool has three stages:

STAGE 1: To highlight sector-relevant, material sustainability issues, strategies, and practices; score company current performance using defined criteria; and identify value creation opportunities

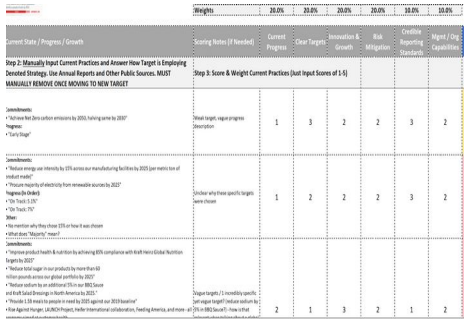
STAGE 2: To identify future sustainability risks and opportunities (related to the material sustainability strategies) that can drive improved financial performance, level of effort/investment required to implement those strategies, and insights into how to prioritize focus and investment

STAGE 3: To align prioritized material strategies and their associated practices with ROSI™ benefits, ROSI™ monetization methods and examples of financial KPIs to calculate the monetary value

Potential Uses of the ROSI™ Corporate Sustainability Value Creation Assessment Tool

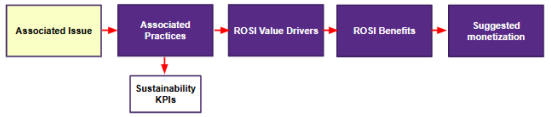
NYU Stern CSB has created this open source tool to help companies identify the upside and downside financial implications of sustainability strategies and practices that address material sustainability issues for their company, in order to improve corporate decision-making and enterprise performance.

Provides diagnostic assessment of material sustainability issues and associated strategies



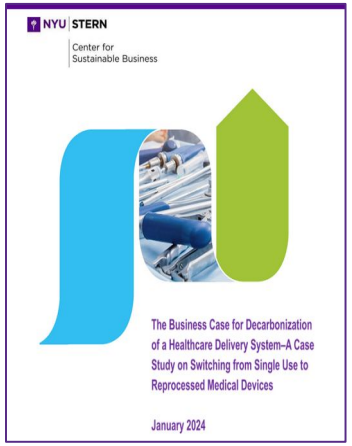
Ranking of company's performance on material sustainability issues and strategies using relevant criteria provides a diagnostic assessment

Connects material sustainability strategies with value drivers and practices



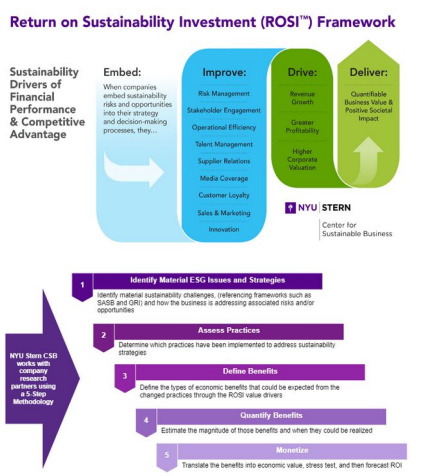
E.g., working with farmers,within a **biodiversity and ecosystem conservation strategy** generates improved pollination and yields, reduced input costs for growers and led to carbon sequestration benefits

Provides value creation examples



E.g., A medical devices company can drive $20.3 million in revenues from using reprocessed medical devices instead of single use devices

Helps a company get started on a ROSI™ implementation journey

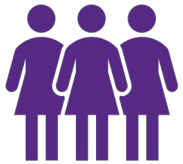


Demonstrate and understand the importance of sustainability to enterprise value creation.

Before Starting to Use the Tool

DATA

I. Have your company's sustainability goals and commitments as a reference
II. Gather any past materiality assessments conducted



TEAMS

This Tool is best completed by the Sustainability team with inputs from the following teams:

I. Finance
II. Sales & Marketing
III. Product
IV. Strategy
V. Compliance & Audit

APPROACH

Anticipated completion time depends on how far along the company is on its sustainability adoption journey. For companies that have a materiality assessment in place, they may focus on Stage 2 value-linked issue prioritization and Stage 3 aligning value creation opportunities of the tool by simply scoring material sustainability issues in Stage 1

Stage 1 ~ 1-2 hours
Stage 2 ~ 2-4 hours
Stage 3 ~ 4 hours

Corporate Sustainability Value Creation Assessment Tool Stage 1

3 Stages to Use the Corporate Sustainability Value Creation Assessment tool

1 Materiality and Value Creation Assessment

- Initial identification of material issues based on the relevant industry, associated sustainability strategies, practices, and value drivers.
- Scoring of material issues based on specified criteria.

2 Value-Linked Issue Prioritization

Analyze opportunities vs. risk for ranked sustainability strategies so as to maximize value creation

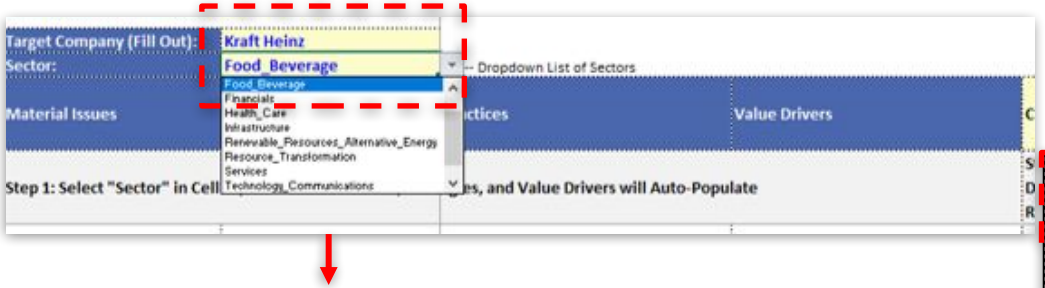
3 ROSI™ Value Drivers, Benefits and Monetization & Sustainability KPIs

- Connect material issues to associated practices and ROSI value drivers/benefits/monetizations
- Review larger database of Sustainability KPIs in the "KPI Development" tab

How to Use the Tool (Process Map)

STAGE 1: (MATERIALITY AND VALUE CREATION ASSESSMENT)
This stage supports an assessment of current performance on the sustainability strategies and practices associated with material sustainability topics for the company and links it to value creation

STEP 1.1: Begin in the "**Materiality and Value Creation Assessment**" tab > Fill out Company's name, **Select** the associated industry/sector of the company (using SASB classification)



STEP 1.2: The tool auto-populates the relevant material issues for the identified sector and then indicates associated sustainability strategies, practices, and ROSI benefits (value drivers), which enables a better focus on performance

Material Issues	Strategy	Practices	Value Drivers
Step 1: Select "Sector" in Cell E4, then Material Issues, Strategies, and Value Drivers will Auto-Populate			
GHG Emissions	Mitigating Climate Change Impacts	Reduce emissions across all three scopes, focusing on direct emissions first, but also focusing on where the biggest emissions are.	Operational efficiencies in terms of costs Reduced exposure to regulatory fines and fees Reduced reputational and market risk. Lower cost of capital. Improved employee recruitment and retention
Energy Management	Improving Energy Efficiency & Use of Renewables	Adopt products, services, and processes that use less energy. Convert energy purchase (or generation) to renewables where possible	Lower energy costs. Reduced exposure to energy cost volatility or grid break-downs. Reduced regulatory fines and risks.

STAGE 1 (MATERIALITY AND VALUE CREATION ASSESSMENT)

STEP 1.3: After reviewing the sector's material strategies and practices, go to the "**Guidance Stage 1" tab** for scoring recommendations across six criteria for the company's current performance on each material issue and its strategy

Scoring Guidance Examples: look below for explanations on what warrants Low vs. Medium vs. High scores. These

Low = 1 (Behind)	Medium = 3 (Developing)	High = 5 (Leading)
• Vague description of progress	• Clear description of progress	• Clear description of progress
• Vague target & commitments	• Clear targets and commitments,	• Highly specific targets with
• Company lacks innovative thinking	• Company exhibits some creative	• Best-in-class company that builds
• Proposed action plan /	• Proposed action plan /	• Proposed action plan /
• Lack a reporting standard, or goal	• Use a clear reporting standard with	• Clear reporting standard, clear
• Weak or unconcerned management	• Management / Board demonstrate	• Skilled sustainability professionals

User scores company's performance

STEP 1.4: Research your company's commitments, current performance, and progress for each material strategy across the following criteria:

- **Current Progress**
- **Clear Targets**
- **Innovation & Growth**
- **Risk Mitigation**
- **Credible Reporting Standards**
- **Mgmt./Board/Org. Capabilities**

Note: Companies that have a materiality assessment in place may focus on Stage 2-value linked issue prioritization and Stage 3- aligning value creation opportunities of the tool by simply scoring Material issues in Stage 1

STAGE 1 (MATERIALITY AND VALUE CREATION ASSESSMENT)

STEP 1.5: Provide scores of 1(behind), 3 (developing), or 5 (leading) across the criteria listed in Step 1.4 and record notes (Companies that have their materiality assessment in place may skip recording the notes but should allocate scores. An aggregate score is automatically calculated based on the weighting for issue/sector

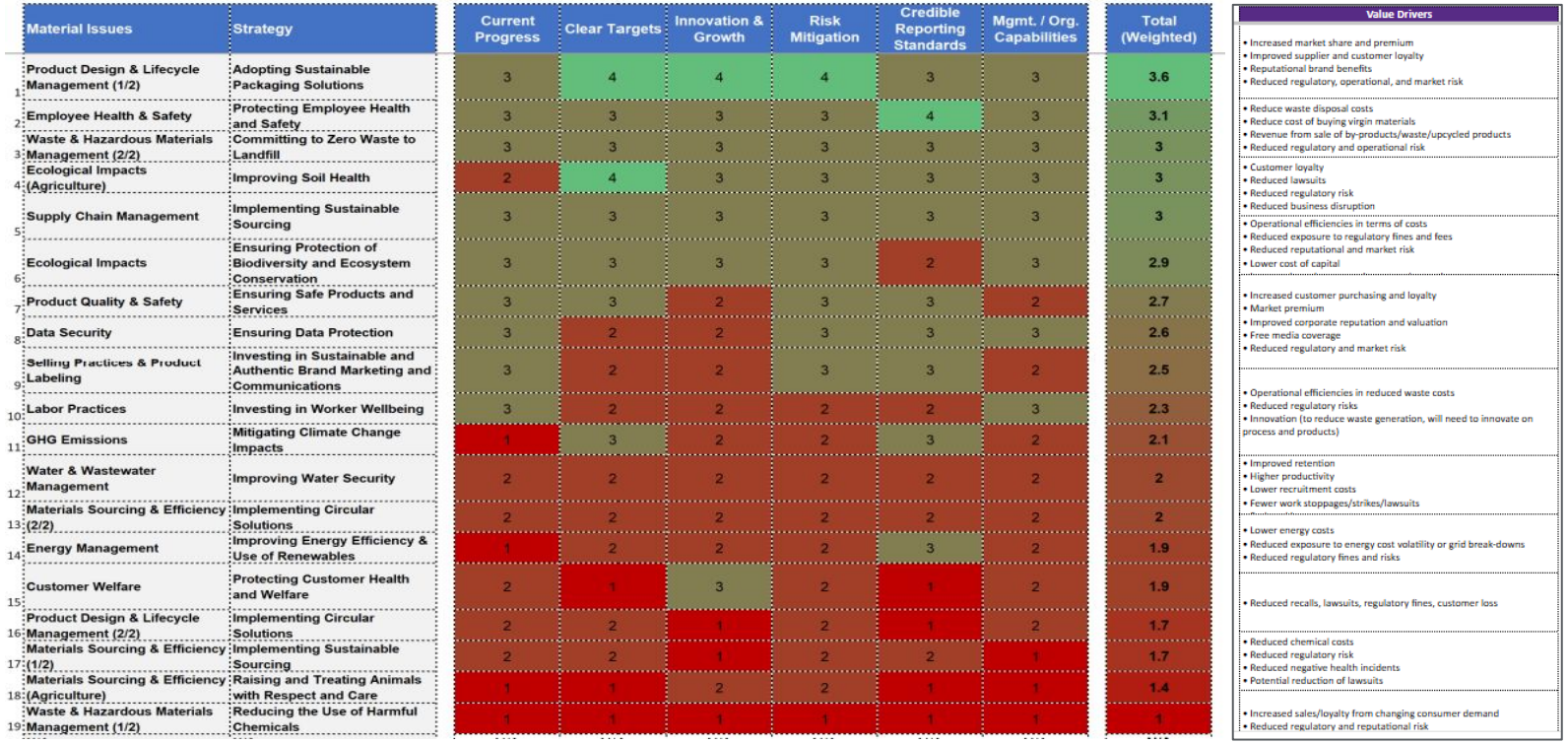
	Weights	20.0%	20.0%	20.0%	20.0%	10.0%	10.0%	Total
Current State / Progress / Growth	Scoring Notes (if Needed)	Current Progress	Clear Targets	Innovation & Growth	Risk Mitigation	Credible Reporting Standards	Mgmt / Org Capabilities	
Step 2: Manually Input Current Practices and Answer How Target is Employing Denoted Strategy. Use Annual Reports and Other Public Sources. MUST MANUALLY REMOVE ONCE MOVING TO NEW TARGET	Step 3: Score & Weight Current Practices (Just Input Scores of 1-5)							
Commitments: • "Achieve Net Zero carbon emissions by 2050, halving same by 2030" Progress: • "Early Stage"	Weak target, vague progress description	1	3	2	2	3	2	2.1
Commitments: • "Reduce energy use intensity by 15% across our manufacturing facilities by 2025 (per metric ton of product made)" • "Procure majority of electricity from renewable sources by 2025" Progress (In Order): • "On Track: 5.1%" • "On Track: 7%" Other: • No mention why they chose 15% or how it was chosen • What does "Majority" mean?	Unclear why these specific targets were chosen	1	2	2	2	3	2	1.9
Commitments: • "Improve product health & nutrition by achieving 85% compliance with Kraft Heinz Global Nutrition Targets by 2025" • "Reduce total sugar in our products by more than 60 million pounds across our global portfolio by 2025" • "Reduce sodium by an additional 5% in our BBQ Sauce and Kraft Salad Dressings in North America by 2025." • "Provide 1.5B meals to people in need by 2025 against our 2019 baseline" • Rise Against Hunger, LAUNCH Project, Heifer International collaboration, Feeding America, and more - all programs aimed at customer health	Vague targets / 1 incredibly specific yet vague target? (reduce sodium by 5% in BBQ Sauce?) - how is that relevant when talking about a global	2	1	3	2	1	2	1.9

Aggregate scores calculated by the tool

Note: There is an option to
1) change the weighting
2) Remove certain issues from further analysis in the "Keep/Remove" column. (User selects dropdown and clicks "Keep" or "Keep/Remove" column

STAGE 1 (MATERIALITY AND VALUE CREATION ASSESSMENT)

<u>STEP 1.6</u>: Review the "**Ranking Table**" tab, which provides a heat map of **individual and aggregate scores for each material issue/strategy, sorted by aggregate score, from best to worst**. This visualization allows the user to identify any significant red flags (in red) or areas of opportunity (in green) across the relevant material issues/strategies and ties it back to value creation opportunities in the right-hand column

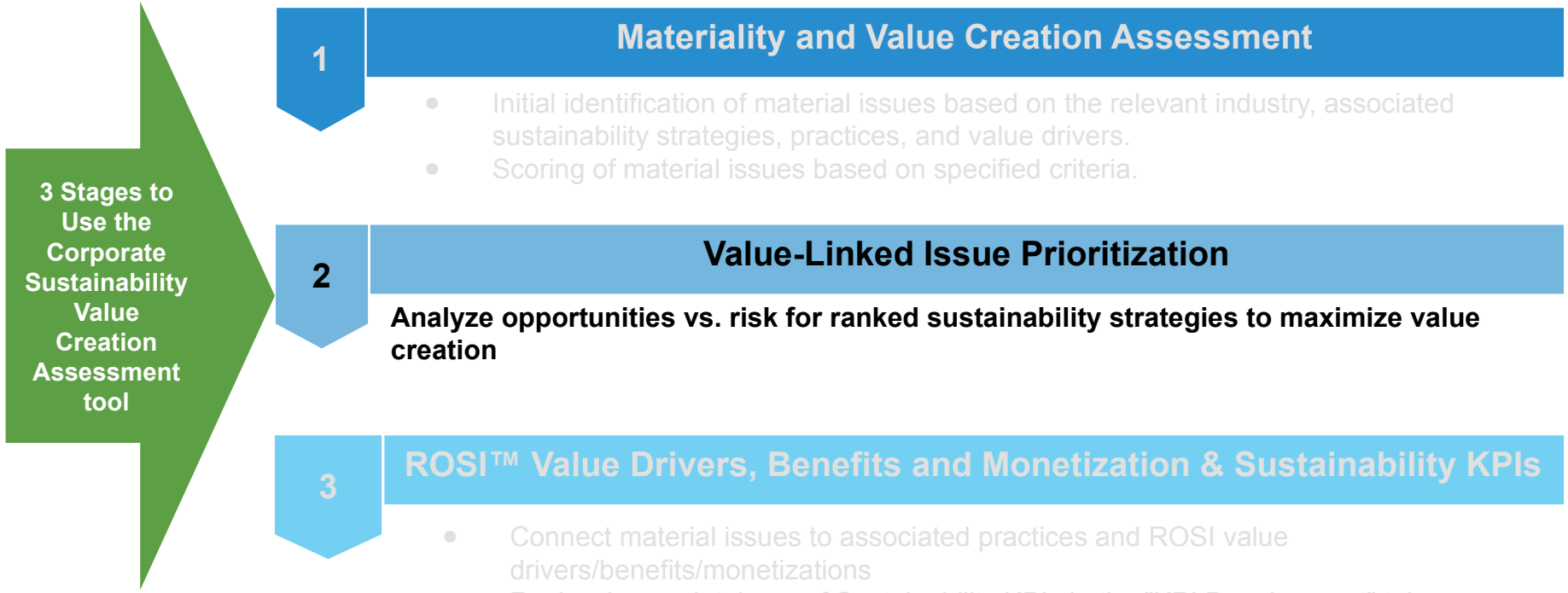


	Material Issues	Strategy	Current Progress	Clear Targets	Innovation & Growth	Risk Mitigation	Credible Reporting Standards	Mgmt. / Org. Capabilities	Total (Weighted)	Value Drivers
1	Product Design & Lifecycle Management (1/2)	Adopting Sustainable Packaging Solutions	3	4	4	4	3	3	3.6	• Increased market share and premium • Improved supplier and customer loyalty • Reputational brand benefits • Reduced regulatory, operational, and market risk
2	Employee Health & Safety	Protecting Employee Health and Safety	3	3	3	3	4	3	3.1	• Reduce waste disposal costs • Reduce cost of buying virgin materials • Revenue from sale of by-products/waste/upcycled products • Reduced regulatory and operational risk
3	Waste & Hazardous Materials Management (2/2)	Committing to Zero Waste to Landfill	3	3	3	3	3	3	3	• Customer loyalty • Reduced lawsuits • Reduced regulatory risk • Reduced business disruption
4	Ecological Impacts (Agriculture)	Improving Soil Health	2	4	3	3	3	3	3	• Operational efficiencies in terms of costs • Reduced exposure to regulatory fines and fees • Reduced reputational and market risk • Lower cost of capital
5	Supply Chain Management	Implementing Sustainable Sourcing	3	3	3	3	3	3	3	• Increased customer purchasing and loyalty • Market premium • Improved corporate reputation and valuation • Free media coverage • Reduced regulatory and market risk
6	Ecological Impacts	Ensuring Protection of Biodiversity and Ecosystem Conservation	3	3	3	3	2	3	2.9	• Operational efficiencies in reduced waste costs • Reduced regulatory risks • Innovation (to reduce waste generation, will need to innovate on process and products)
7	Product Quality & Safety	Ensuring Safe Products and Services	3	3	2	3	3	2	2.7	• Improved retention • Higher productivity • Lower recruitment costs • Fewer work stoppages/strikes/lawsuits
8	Data Security	Ensuring Data Protection	3	2	2	3	3	3	2.6	• Lower energy costs • Reduced exposure to energy cost volatility or grid break-downs • Reduced regulatory fines and risks
9	Selling Practices & Product Labeling	Investing in Sustainable and Authentic Brand Marketing and Communications	3	2	2	3	3	2	2.5	• Reduced recalls, lawsuits, regulatory fines, customer loss
10	Labor Practices	Investing in Worker Wellbeing	3	2	2	2	2	3	2.3	• Reduced chemical costs • Reduced regulatory risk • Reduced negative health incidents • Potential reduction of lawsuits
11	GHG Emissions	Mitigating Climate Change Impacts	1	3	2	2	3	2	2.1	• Increased sales/loyalty from changing consumer demand • Reduced regulatory and reputational risk
12	Water & Wastewater Management	Improving Water Security	2	2	2	2	2	2	2	
13	Materials Sourcing & Efficiency (2/2)	Implementing Circular Solutions	2	2	2	2	2	2	2	
14	Energy Management	Improving Energy Efficiency & Use of Renewables	1	2	2	2	3	2	1.9	
15	Customer Welfare	Protecting Customer Health and Welfare	2	1	3	2	1	2	1.9	
16	Product Design & Lifecycle Management (2/2)	Implementing Circular Solutions	2	2	1	2	1	2	1.7	
17	Materials Sourcing & Efficiency (1/2)	Implementing Sustainable Sourcing	2	2	1	2	2	1	1.7	
18	Materials Sourcing & Efficiency (Agriculture)	Raising and Treating Animals with Respect and Care	1	1	2	2	1	1	1.4	
19	Waste & Hazardous Materials Management (1/2)	Reducing the Use of Harmful Chemicals	1	1	1	1	1	1	1	

Heatmap with material issues, strategies, associated value drivers and a ranking across the six criteria is the final output of STAGE 1.

Users may pick five to eight issues based on the analysis that they would like to assess for forward-looking investment and then run those topics in STAGE 2

Corporate Sustainability Value Creation Assessment Tool Stage 2

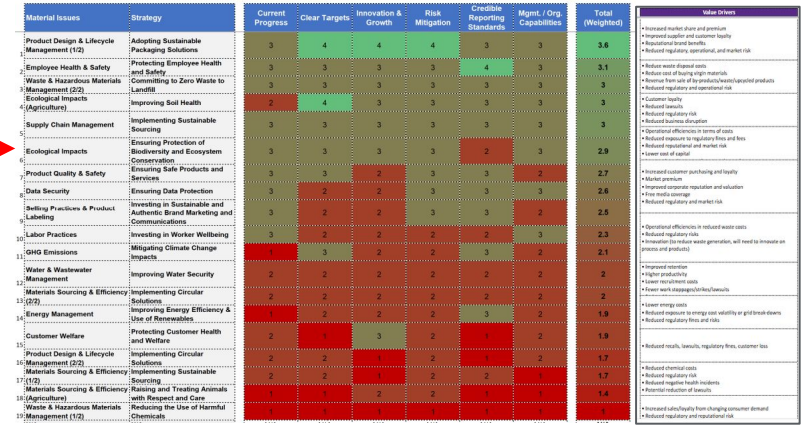


STAGE 2 (VALUE-LINKED ISSUE PRIORITIZATION)

This phase assesses the future business risks and opportunities associated with material sustainability strategies and practices, as well as a high-level view of effort/investment required, to help companies prioritize which sustainability strategies to invest in.

STEP 2.1: Here we see the heat map generated in the first phase and users can choose which sustainability topics/strategies they would like to asses in this second stage. We recommend a minimum of five.

Ranking table from Step 6 of Current Assessment stage auto-populates



Material Issues	Strategy	Current Progress	Clear Targets	Innovation & Growth	Risk Mitigation	Credible Reporting Standards	Mgmt. / Org. Capabilities	Total (Weighted)	Value Drivers
Product Design & Lifecycle Management (1/2)	Adopting Sustainable Packaging Solutions	3	4	4	4	3	3	3.6	• Increased market share and premium • Improved supplier and customer loyalty • Reputational brand benefits • Reduced regulatory, operational, and market risk
Employee Health & Safety	Protecting Employee Health and Safety	3	3	3	3	4	3	3.1	
Waste & Hazardous Materials Management (2/2)	Committing to Zero Waste to Landfill	3	3	3	3	3	3	3	• Reduce waste disposal costs • Reduce cost of buying virgin materials • Revenue from sale of by-products/waste/upcycled products • Reduced regulatory and operational risk
Ecological Impacts (Agriculture)	Improving Soil Health	2	4	3	3	3	3	3	
Supply Chain Management	Implementing Sustainable Sourcing	3	3	3	3	3	3	3	• Customer loyalty • Reduced lawsuits • Reduced regulatory risk • Reduced business disruption
Ecological Impacts	Ensuring Protection of Biodiversity and Ecosystem Conservation	3	3	3	3	2	3	2.9	• Operational efficiencies in terms of costs • Reduced exposure to regulatory fines and fees • Reduced reputational and market risk • Lower cost of capital
Product Quality & Safety	Ensuring Safe Products and Services	3	3	2	3	2	2	2.7	
Data Security	Ensuring Data Protection	3	2	2	3	3	3	2.6	• Increased customer purchasing and loyalty • Market premium • Improved corporate reputation and valuation • Free media coverage • Reduced regulatory and market risk
Selling Practices & Product Labeling	Investing in Sustainable and Authentic Brand Marketing and Communications	3	2	2	3	3	2	2.5	
Labor Practices	Investing in Worker Wellbeing	3	2	2	2	2	3	2.3	• Operational efficiencies in reduced waste costs • Reduced regulatory risks • Innovation (to reduce waste generation, will need to innovate on process and products)
GHG Emissions	Mitigating Climate Change Impacts	4	3	2	2	3	2	2.1	
Water & Wastewater Management	Improving Water Security	2	2	2	2	2	2	2	• Improved retention • Higher productivity • Lower recruitment costs • Fewer work stoppages/strikes/lawsuits
Materials Sourcing & Efficiency (2/2)	Implementing Circular Solutions	2	2	2	2	2	2	2	
Energy Management	Improving Energy Efficiency & Use of Renewables	1	2	2	2	3	2	1.9	• Lower energy costs • Reduced exposure to energy cost volatility or grid break-downs • Reduced regulatory fines and risks
Customer Welfare	Protecting Customer Health and Welfare	2	1	3	2	1	2	1.9	
Product Design & Lifecycle Management (2/2)	Implementing Circular Solutions	2	2	1	2	2	2	1.7	• Reduced recalls, lawsuits, regulatory fines, customer loss
Materials Sourcing & Efficiency (1/2)	Implementing Sustainable Sourcing	2	2	1	2	2	2	1.7	
Materials Sourcing & Efficiency (Agriculture)	Raising and Treating Animals with Respect and Care	1	1	2	2	1	1	1.4	• Reduced chemical costs • Reduced regulatory risk • Reduced negative health incidents • Potential reduction of lawsuits
Waste & Hazardous Materials Management (1/2)	Reducing the Use of Harmful Chemicals	1	1	1	1	1	1	1	
									• Increased sales/loyalty from changing consumer demand • Reduced regulatory and reputational risk

STEP 2.2: Review "Prioritization Guidance" for how to score the company on key future risks and opportunities. It includes a list of sample questions to help gather insights.

Scoring Guidance

Scoring Bucket	Type	Guidance	Questions
Market Risk	Downside	High scores given for:	• Any changes in economic and social factors affecting demand and supply?
Regulatory Risk	Downside	High scores given for areas where the target company is not meeting	• Will the current or future regulatory environment negatively affect the target
Environmental Risk	Downside	High scores given for:	• Will environmental factors affect the availability or production of inputs?
Geopolitical Risk	Downside	Risks faced within a given country including corruption, human rights	• Are there any human rights issues within the country / location of footprint?
Revenue Growth	Upside	High scores given for:	• What is the size of the opportunity? Any current investment inflows into
Operational	Upside	Value improvement through stronger, more resilient processes	• Has the company delivered on operational efficiency delivered by
Reputation of	Upside	The impact on the reputation of the company	• How will the pursuit of the strategy / mitigation of the risk affect the
Investment/Effort	Other	High scores given for:	• Does the initiative require capex/opex? How much?

STAGE 2 (VALUE-LINKED ISSUE PRIORITIZATION)

STEP 2.3: The future risks and opportunities related to the chosen material issues/strategies now need be analyzed and scored from 1(low opportunity/low risk), 3 (moderate opportunity/moderate risk) and 5 (high opportunity/high risk) across the following criteria:

- **Risks/Downside:** Market, Regulatory, Environmental and Geopolitical Risk
- **Opportunities/Upside:** Revenue Growth Potential, Operational Efficiency, Reputation
- **Investment**/Effort Required for Successful Execution

Upside						Other		
Revenue Growth Potential	1-5	Operational Efficiency	1-5	Reputation of Target (Multiple Impact)	1-5	Investment/Effort Required for Successful Execution	1-5	Option to Remove Issues (Use Dropdown to "Keep" or "Remove")
• Significant investments in sustainable packaging solutions, which have had a positive impact on their revenue growth potential. • Invested in sustainable packaging solutions such as recyclable and compostable packaging, which has helped to reduce their environmental impact and increase their revenue growth potential. • Invested in innovative packaging solutions such as their "Kraft Singles" packaging, which is made from 100% recycled materials and is designed to reduce waste. • Committed to reducing their plastic packaging by 50% by 2025, which will help to reduce their environmental impact and increase their revenue growth.	4	• Adoption sustainable packaging solutions can reduce waste and optimize packaging design • KH has implemented a number of initiatives to reduce packaging waste, such as using lighter-weight packaging materials and eliminating unnecessary packaging components. • The company has also invested in new technologies to reduce the amount of energy and water used in the production of packaging materials. • Kraft Heinz has partnered with suppliers to develop more sustainable packaging solutions, such as using recycled materials and biodegradable packaging.	4	• KH has a strong track record of adopting sustainable packaging solutions and has been recognized for its efforts by investors. • In 2019, Kraft Heinz was recognized by the Dow Jones Sustainability Index for its commitment to sustainable packaging solutions. • 2021: KH partnerships with the World Wildlife Fund & Sustainable Packaging Coalition to develop a new line of sustainable packaging solutions. • Kraft Heinz is investing in research and development	3	• Demonstrated a strong capacity for successful execution in terms of adopting sustainable packaging solutions. • Likely to continue to partner with organizations to develop and launch new lines of sustainable packaging solutions. • Likely to continue to invest in research and development of new sustainable packaging solutions.	4	Keep

Connecting material issues to business risks & opportunities

STAGE 2 (VALUE-LINKED ISSUE PRIORITIZATION)

Once the prioritization analysis in Step 9 is complete, a heat map is generated, as seen below. However, we find a scatter plot analysis depicted in Step 2.5 to be more useful at this stage.

STEP 2.4: The tab "**Heatmap**" provides a heatmap visualization of the "**Value-linked Issue Prioritization**" scores, allowing the user to compare upsides and downside associated with the sustainability strategies

Material Issues	Strategies	Market Risk	Regulatory Risk	Environmental Risk	Geopolitical Risk	Revenue Growth Potential	Operational Efficiency	Reputation of Target (Multiple Impact)
GHG Emissions	Mitigating Climate Change Impacts	4	4	3	2	3	2	2
Product Design & Lifecycle Management	Adopting Sustainable Packaging Solutions	2	2	2	2	4	4	3
Water & Wastewater Management	Improving Water Security	4	2	3	2	2	4	2
Product Quality & Safety	Ensuring Safe Products and Services	3	3	1	2	3	3	2
Energy Management	Improving Energy Efficiency & Use of Renewables	3	3	3	2	1	3	2
Waste & Hazardous Materials Management (1/2)	Reducing the Use of Harmful Chemicals	4	4	3	2	1	2	1
Waste & Hazardous Materials Management (2/2)	Committing to Zero Waste to Landfill	2	2	2	2	2	3	3
Customer Welfare	Protecting Customer Health and Welfare	2	2	1	1	4	3	3
Employee Health & Safety	Protecting Employee Health and Safety	4	2	1	2	2	2	2
Supply Chain Management	Implementing Sustainable Sourcing	2	2	2	2	2	2	2

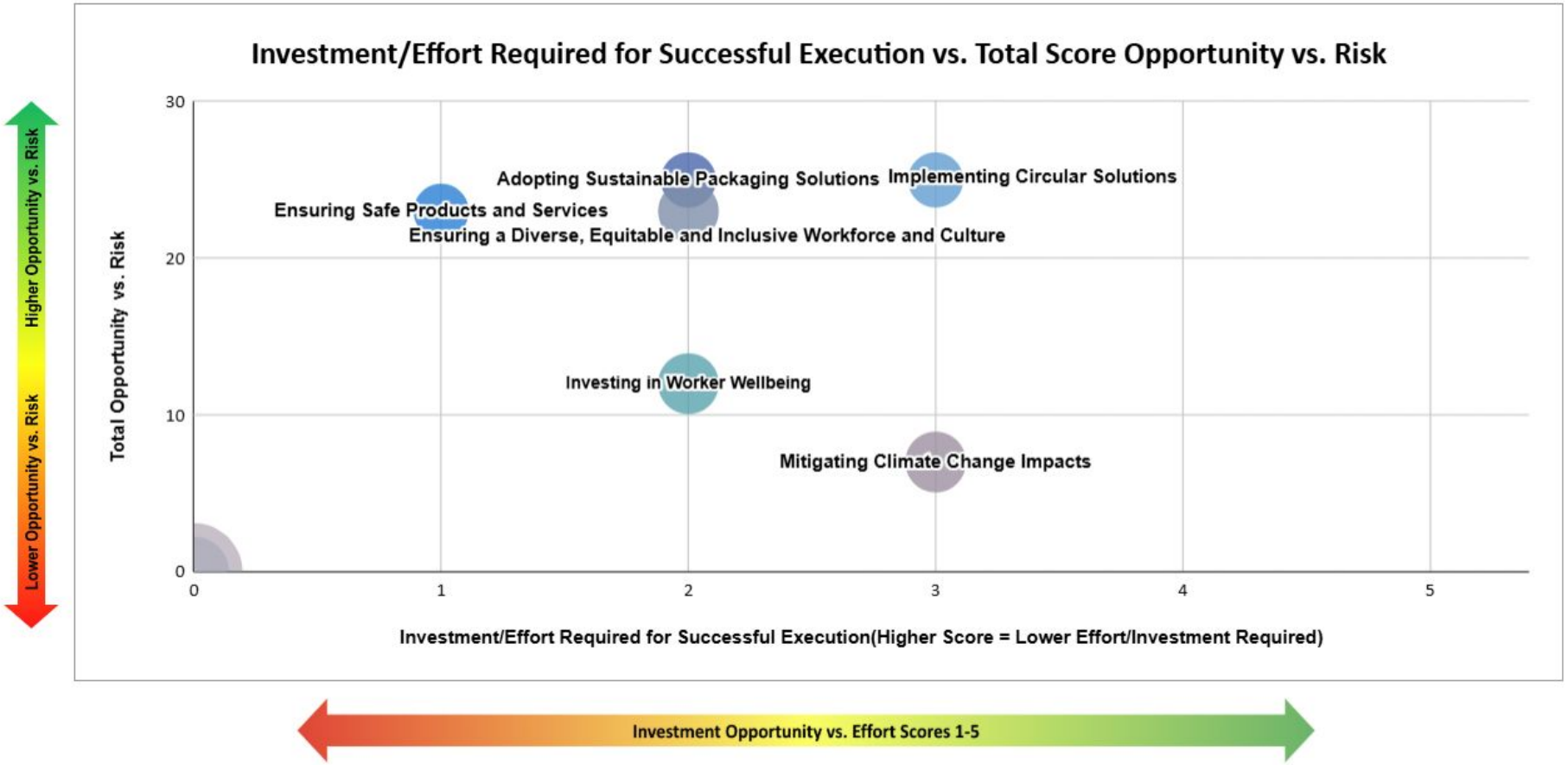
Note: CSB removed 7 less relevant issues** during the "Issue Prioritization" process **to better focus on the most important issues / strategies

STAGE 2 (VALUE-LINKED ISSUE PRIORITIZATION)

STEP 2.5: The tab "**Graph**" is a scatter plot which provides a visual representation of each material sustainability strategy based on its risk and opportunity score. User can prioritize investment strategies by first analyzing strategies that fall in the top right quadrant of the graph (High Opportunity Strategies + High Risk Issues)

STAGE 2 (VALUE-LINKED ISSUE PRIORITIZATION)

STEP 2.6 : This scatter plot maps the relationship between risk/opportunity and level of effort/investment required for each material sustainability strategy. The user may decide to focus on “low-hanging fruit” initially, working up to more costly investments.



Corporate Sustainability Value Creation Assessment Tool Stage 3

3 Stages to Use the Corporate Sustainability Value Creation Assessment tool

1 Materiality and Value Creation Assessment

- Initial identification of material issues based on the relevant industry, associated sustainability strategies, practices, and value drivers.
- Scoring of material issues based on specified criteria.

2 Value-Linked Issue Prioritization

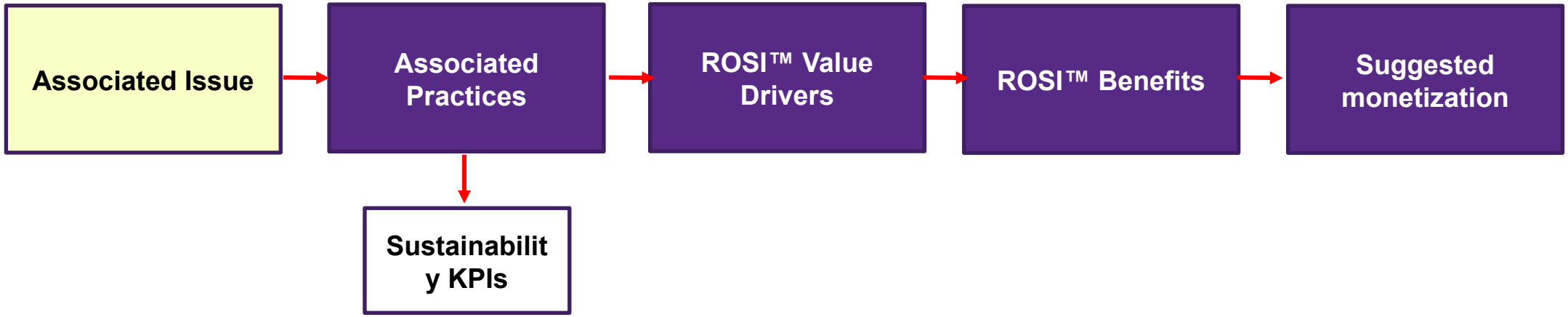
Analyze opportunities vs. risk for ranked sustainability strategies so as to maximize value creation

3 ROSI™ Value Drivers, Benefits and Monetization & Sustainability KPIs

- **Connect material issues to associated practices and ROSI™ value drivers, benefits, and monetizations**
- **Review larger database of Sustainability KPIs in the "KPI Development" tab**

STAGE 3 (ROSI VALUE DRIVERS, BENEFITS AND MONETIZATION) In this stage, the user will identify the priority sustainability strategies based on the analysis generated in Stage 2. The tool will then auto-populate with guidance related to defining sustainability and ROSI™ KPIs, as well as monetization methods associated with the given strategy and practice.

STEP 3.1: Go to the tab "**Monetization.**" CSB provides a database of sustainability practices associated with material issues. Associated with the practices are ROSI™ value drivers, ROSI™ benefits, ROSI™ metrics and suggested monetization methods to help the user understand benefits and monetization for their prioritized strategies. The user will also find Sustainability KPIs (at the practice level) to track performance on an ongoing basis.



Note: the suggested sustainability and ROSI™ KPIs are illustrative (though we try to offer a wide variety) because every sustainability strategy has different practices with thousands of variations. We aim to provide sufficient detail so that users can either find the correct KPIs in the database or learn enough from the examples to design their own.

STAGE 3 (ROSI VALUE DRIVERS, BENEFITS AND MONETIZATION)

STEP 3.2: User selects the strategies they have chosen from the dropdowns (based on the analysis in Stage 2) provided in a highlighted column. The practices, KPIs, and monetization methods auto-populate after user selection

Monetization & KPI Development	User must select top 3-5 strategies th ey chose through the "Issue Prioritization" process. After selection of strategy, remaining columns auto-po pulate. THESE ARE ILLUSTRATIVE AND SHOULD BE USED ONLY AS EXAMPLES. The CSB website will i nclude a more comprehensive database of monetization factors for specific practices and associated value drivers.						
Follow the instructions in this row. Several columns require User Input. To reset dropdown menus, select the cell and click "Backspace" or "Delete".	**Step 1:** Select the strategies associated with your material issues. Select the same Strategy in multiple rows in order to explore multiple Practices within the same Strategy.	Review the Practices associated with each Strategy.	**Step 2:** Select your Practice of interest. You must refresh the dropdown upon selecting a new Strategy by clicking on the dropdown and selecting from the updated values.	This column will autopopulate with a potential KPI your organization can use to monitor progress on implementing the Practice.	**Step 3:** Select the ROSI Value Driver you would like to explore. You must refresh the dropdown upon selecting a new Practice and/or Strategy by clicking on the dropdown and selecting from the	**Step 4:** Select the ROSI Benefit associated with your choice of ROSI Value Driver. Note: there are other benefits associated with your chosen Practice that fall within other ROSI Value Drivers available in the Value Driver	These two columns will populate with a more detailed description of the benefit mechanism and descriptions of how your organization can measure the monetary impact of implementing the practice.

Associated Material Issue	Associated Strategy (Use Cell Dropdown)	Associated Practices	Example Practice (Use Cell Dropdown)	Sustainability KPI Example	ROSI Value Driver	ROSI Benefit (Use Cell Dropdown)	ROSI Benefit Description	ROSI Suggested Monetization Method
Ecological Impacts (Agriculture)	Improving Soil Health	• Reduce herbicide and pesticide use • Improve nutrient management • Rotate crops • Continuous cover crops • Require regenerative certification	Improve nutrient management	**Improve nutrient management or efficiency rates by x% by y date**	Operational Efficiency	Lower input costs	Improve cost efficiency of input use	Calculate improved use efficiency (compare before and after input applied/unit of crop production) resulting from the change in inputs. Calculate the cost efficiency (compare before and after cost/ton) resulting from the change in inputs Be sure to include any negatives like yield declines or cost of substitutes
Labor Practices	Investing in Worker Wellbeing	• Competitive salary and benefits • Engagement on sustainability • Close pay equity gap • Ensuring a living wage • Promote workplace flexibility • Create clear and equitable promotion pathways	Ensuring a living wage	**Conduct research and identify living wage needed for market firm operates in, ensure all employees are paid a living wage by xx date**	Talent Management	Increased sales, market share	Supporting soil health practices with farmers enhances the company's sustainability profile which can lead to increase share of wallet or incremental growth in revenues and profits with retailers/key clients & customers focused on sustainability	Gather product revenues and margins for those products made with commodities associated with the soil health programs being supported. Estimate a % increase or shift in revenues and multiply by the applicable margin to calculate the value of increased revenue

STAGE 3 (ROSI VALUE DRIVERS, BENEFITS AND MONETIZATION)

STEP 3.3: Review Sustainability KPIs in the "KPI Development" tab

CSB provides a database of one KPI per practice as examples on how to create bespoke KPIs for specific practices. User must select top 3-5 strategies they chose through the "Issue Prioritization" process and select the relevant practices and the resultant KPI will auto-populate. This sheet allows the user to explore a larger database of KPIs should the previous sheet be insufficient for KPI development

Building a Performance-Based, Outcome-Oriented KPI

Select Strategy from Drop-Down Menu:	**Adopting Sustainable Packaging Solutions**	
Relevant Practices:	**Relevant Practices:**	
Practice 1	Reduce packaging weight	
Practice 2	Substitute bio-based packaging	
Practice 3	Source paper packaging from certified forests	
Practice 4	Reduce packaging	
Practice 5	Ensure circularity of packaging	
Practice 6	100% recycled material	
Practice 7		
	Yellow Filters must be refreshed below after picking different strategy	
Selected Practice:	**Reduce packaging**	**4**
Suggested Sustainability KPI:	**Replace x% of conventional packaging by x date, 100% bio-based materials by y date**	
Relevant Value Drivers:		**Relevant Value Drivers:**
Value Driver 1	1	Reduced material and input costs
Value Driver 2	2	Improved market share
Value Driver 3	3	Avoidance of costs
Value Driver 4	4	
Value Driver 5	5	
Value Driver 6	6	
Value Driver 7	7	

STEP 3.4: The "Output Sheet" tab provides all of the gathered information from Stage 1, 2 and 3 in order to provide a comprehensive view of the analysis undertaken.

NYU STERN

Center for
Sustainable Business

Designing Sustainability and ROSI™ KPIs

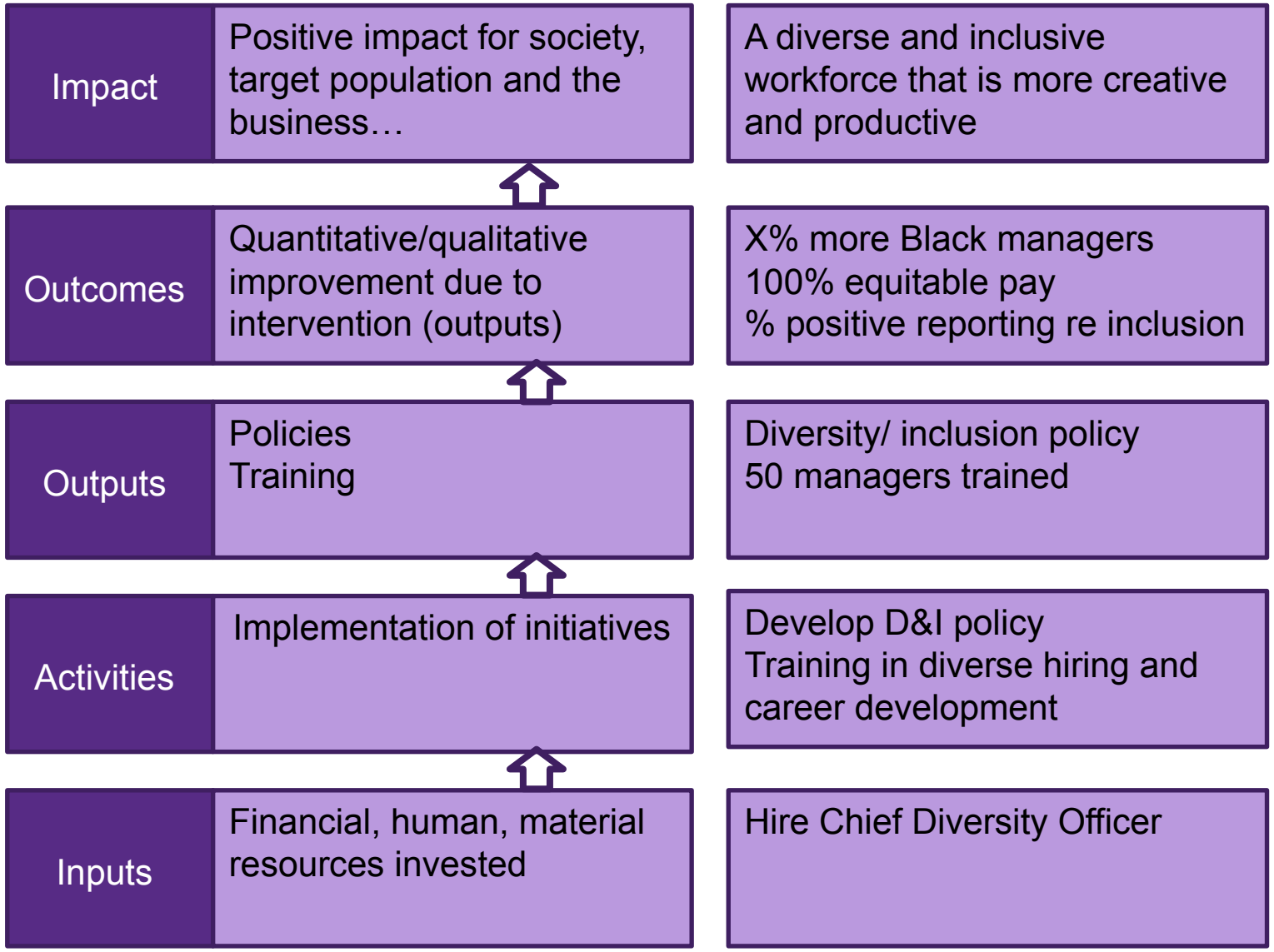
Tensie Whelan

Distinguished Professor of Practice,
Founding Director, NYU Stern Center
for Sustainable Business

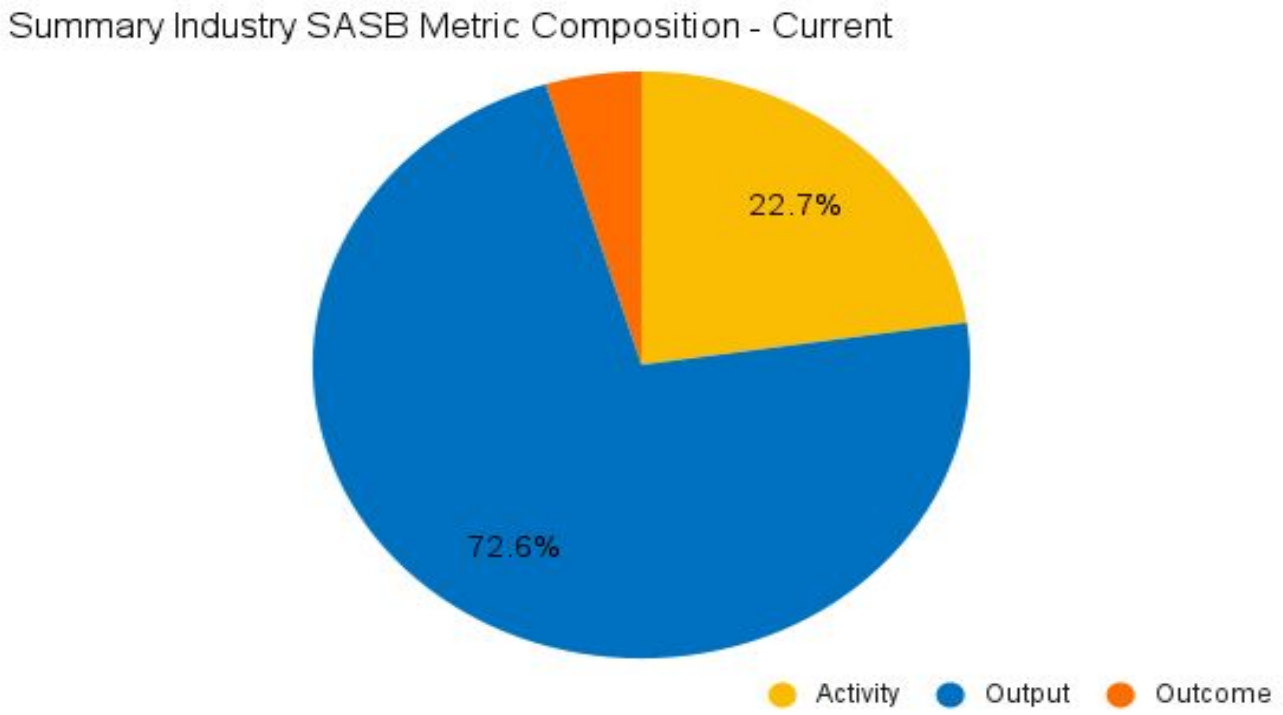
Designing Sustainability KPIs (Outcomes/Impact)

- Companies often confuse activities and outputs with outcomes with impact.
- Reporting on ESG performance is not necessarily that same as reporting on impact.
- Many disclosure standards focus on inputs and outputs because they are easier to monitor. But, inputs and outputs may not be sufficient to adequately assess ESG performance and impact.
- ESG metrics focused on outputs are less likely to drive financial value.

What to Measure:



Outputs Dominate SASB Metrics



SASB Example

SASB Metric:

Activity: Discussion of processes to assess and manage risks and/or hazards associated with chemicals in products

VS

Outcome: (1) Disclosure of toxic chemicals list (2) Percentage of products with toxic chemicals in current year (a) Short and long-term reduction targets (b) base year (c) performance to time-based targets

SASB Metric:

Output: (1) Weight of end-of-life material recovered, (2) percentage of recovered materials recycled

VS

Outcome: (1) Weight of end-of-life material recovered and % of total, (2) Percentage of recovered materials recycled and/or reused in current year (a) Short and long term targets with a defined period (b) base year (c) performance to time-based targets

Setting SMART KPIs for Sustainability

Setting SMART KPIs for Sustainability

- Specific (is it clear/tangible?)
- Measurable (quantifiable)
- Attainable (realistic but stretch?)
- Relevant (is it material?)
- Timely (from what by when?)
- **OUTCOME not OUTPUT**
- **Performance not process**

- Reduce water use at all mills by 30 percent from 2023 baseline by 2026
- VS. Design a water conservation policy

Identification of ROSI™ KPIs

Key Steps

1. Identify the sustainability KPI.
    - E.g. Reduce water use at all mills by 30 percent from 2023 baseline by 2026
2. Identify the potential benefits of that action by assessing its relevance across the 9 ROSI™ value drivers.
3. Determine which benefits are likeliest to drive financial value.
    - E.g. Operational efficiency (reduced water and energy costs as well as reduced wastewater disposal costs), risk mitigation (continued access to water—no stranded asset), stakeholder relations (improved relationships with NGOs, local community, regulators)
4. Develop KPI(s) and monetization methods to track those benefits.
    - E.g. Operational efficiency, energy, water and wastewater disposal costs reduced by xx% at each mill, totaling $xx by 2026.

Next Step:

.

Governance and Operationalization

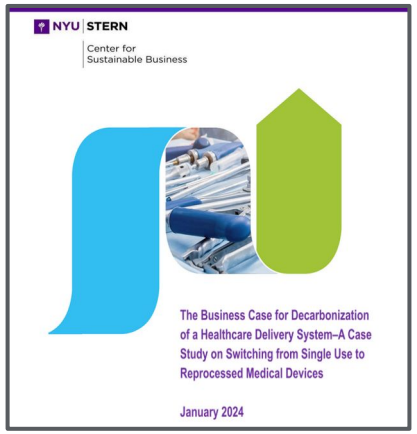
With the completed sustainability value creation analysis in hand, as well as initial ideas about how to set sustainability and ROSI™ KPIs, and how to set up methods for monetizing the latter, the next step will be to work with a cross-divisional committee to develop the plan for institutionalizing the setting of ROSI™ KPIs, tracking them, and using them to inform decision-making:

- Set up cross-divisional committee (HR, procurement, sales, comms, etc) with finance and sustainability as co-leads
- Ensure executive sponsorship
- Train unit in ROSI™ (CSB provides training programs)
- Identify high priority strategies and associated practices (with anticipated ROI) to pilot
- Identify finance resource who will lead the financial analysis and a sustainability resource who will identify and gather the data
- Convene committee regularly to provide feedback, handle obstacles

ROSI™ Resources: Industry Frameworks

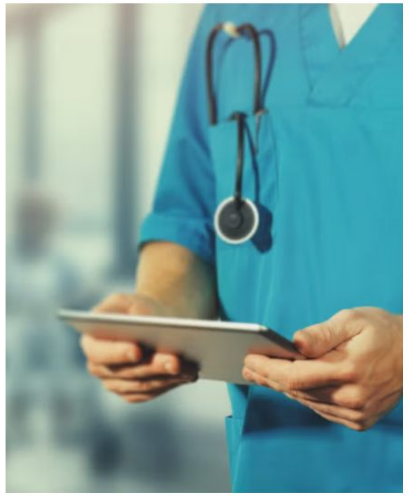
Refer to the ROSI™ Industry Frameworks for industry specific sustainability strategies, practices and sub-practice, ROSI™ benefits and suggested monetization methods. Frameworks for real estate, automotive, and energy will be released by late 2025.

I. [Decarbonization in Healthcare Delivery Systems]
II. [Food & Agriculture Sustainable Strategies Framework]
III. [Apparel Industries Sustainable Strategies Framework]

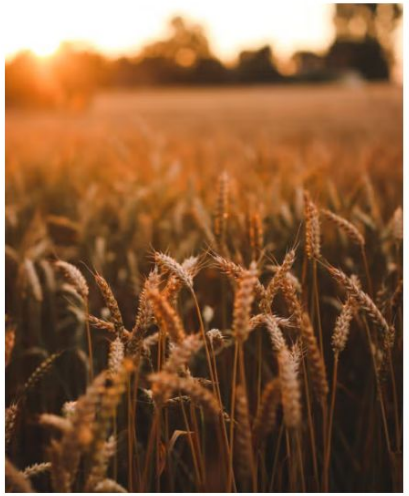


The ROSI™ framework identified financial benefits for switching from single use to reprocessed medical devices for Advocate Health. The analysis showed a net positive financial benefit, the 10-year NPV was assessed at $20.3 M. The emission analysis showed that on an average basis each reprocessed device reduces emissions by 1.5Kg CO2 equivalent.

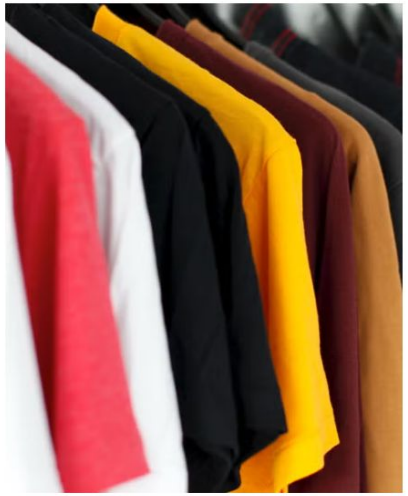
ROSI™ INDUSTRY FRAMEWORKS



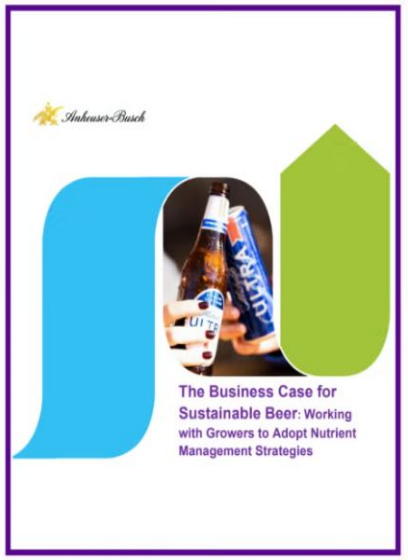
Healthcare Delivery Systems Decarbonization Framework



Food & Agriculture Sustainable Strategies Framework



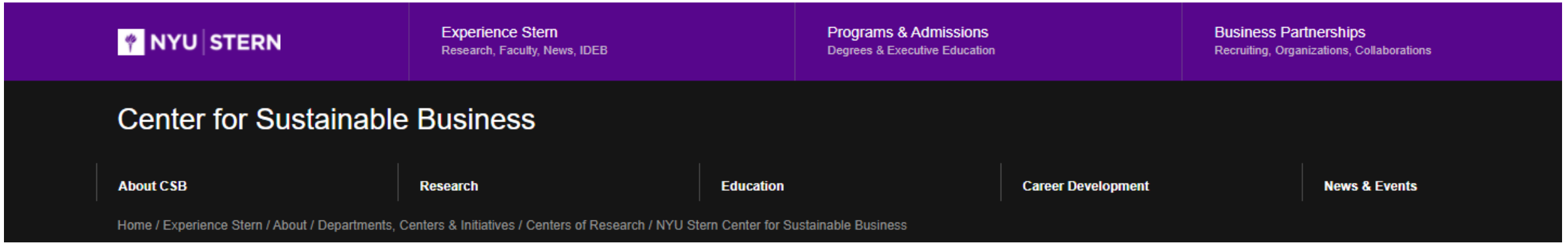
Apparel Industry Sustainable Strategies Framework



Anheuser-Busch (AB) explored the benefits of ROSI™'s soil health strategy. Working with barley growers to accelerate the adoption of nutrient management practices on-farm improved operating efficiency, reduced Scope 3 carbon emissions, and enhanced brand value. ROSI™ results show benefits amounting to ~$40 million in 10-year NPV and an average annual operating income improvement of ~$7.5 million.

ROSI™ Resources

NYU Stern CSB offers in-depth resources on ROSI™, including a step-by-step overview, research publications, industry case studies, and Excel tools for download at our website



Research Papers and Articles

Publication	Description
NYU Stern CSB October 2021	**Complementary Solutions for Holistic Impact Valuation: Return on Sustainable Investment (ROSI™) and Impact-Weighted Accounting (IWA)** Despite the need to balance multiple stakeholder interests, managers lack a common analytical lens through which to make evidence-based decisions. This article describes how two complementary impact monetization methodologies can be used together to provide managers with a comprehensive assessment of financial, social, and environmental impact using the common language of currency. Internalities or business impact can be effectively monetized using the Return on Sustainability Investment (ROSITM) framework4, while Impact-Weighted Accounting (IWA)5 is a tool to demonstrate monetary value created (or eroded) for employees, the environment, and consumers. Used together, ROSITM and IWA produce financial data for managers to incorporate into decision-making discussions.
NYU Stern CSB June 2021	**The Business Case for Circularity at Reformation** While many apparel companies prioritize sustainability investments, there is often a lack of knowledge as to how these investments help to drive financial performance. With funding from HSBC, the NYU Stern Center for Sustainable Business (NYU Stern CSB) recruited a group of apparel companies, including Reformation, to better understand and define the strategies that these businesses are using to achieve and monetize benefits stemming from sustainability efforts.

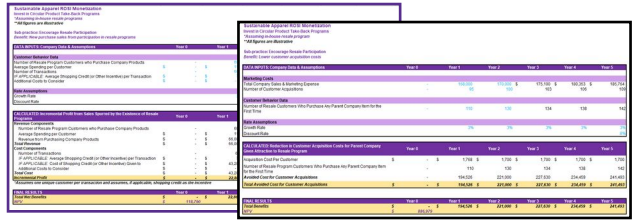
ROSI™-related research papers & articles

Details on our ROSI™ projects, including the apparel industry sustainable strategies framework

Excel Tools for Testing ROSI

Below you'll find five Excel tools that CSB has developed to apply ROSI to the specified mediating factors or through collaboration with industry partners.

- Talent Attraction, Productivity, and Retention (Excel Download)
- Risk Management (Excel Download)
- Operational Efficiency (Excel Download)
- Automotive Industry (Excel Download)
- Commodity Supply Chains (Excel Download)



Excel monetization tools that can be applied across industries

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Scan this code to access the tool

Disclaimer: This tool is provided by NYU Stern Center for Sustainable Business for informational and educational purposes only. While every effort has been made to ensure the accuracy and reliability of the data and calculations contained within this tool, NYU Stern Center for Sustainable Business makes no warranties, express or implied, regarding its completeness, accuracy, or fitness for a particular purpose. Users assume full responsibility for any decisions made based on the outputs of this tool. New York University and its affiliates, faculty, staff, and students shall not be liable for any direct, indirect, incidental, or consequential damages arising from the use of this tool. This tool is provided “as is” and may be subject to updates or modifications without notice. Users should verify all results independently and consult with appropriate professionals before relying on the data provided. By using this tool, you acknowledge and agree to these terms.