

*A Better World,
Through Better Business*

 **NYU | STERN**

Center for
Sustainable Business

Building the Business Case for Sustainability

ROSI™ 201

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- Quick review of the ROSI™ framework
- Discuss overcoming challenges in quantifying sustainability benefits
- ROSI™ in action
 - ✓ *Walk through examples of ROSI™ to measure more indirect benefits*
 - ✓ *Group exercise to apply ROSI™ to monetize benefits of sustainability programs within the supply chain*
- Tools available to implement ROSI™ and accelerate needed pace of change

Our Research Begins with This Premise



Return on Sustainability Investment (ROSI™) Framework

When a company embeds sustainability in its strategy and practice, it...



Improves:

- Customer Loyalty
- Employee Relations
- Innovation
- Media Coverage
- Operational Efficiency
- Risk Management
- Sales & Marketing
- Supplier Relations
- Stakeholder Engagement

Drives:

- Greater Profitability
- Higher Corporate Valuation
- Lower Cost of Capital

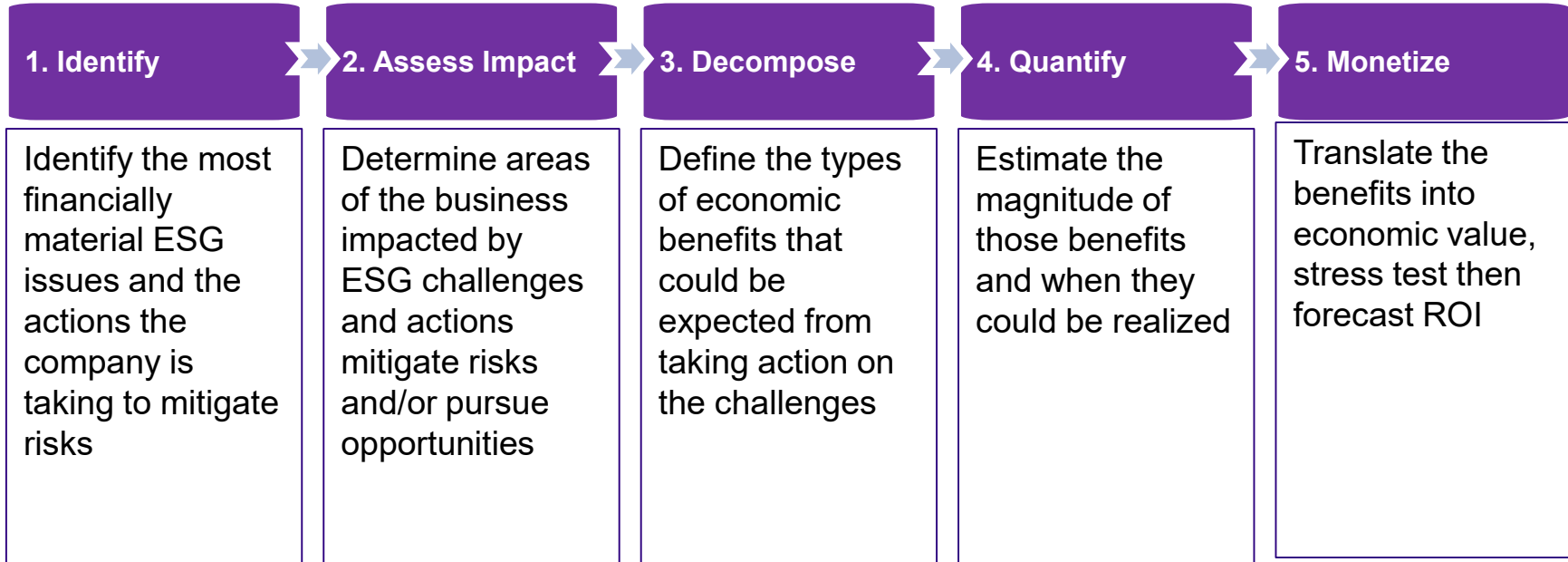
Delivers:

- Short- and Long-Term Value Creation for Shareholders and Society

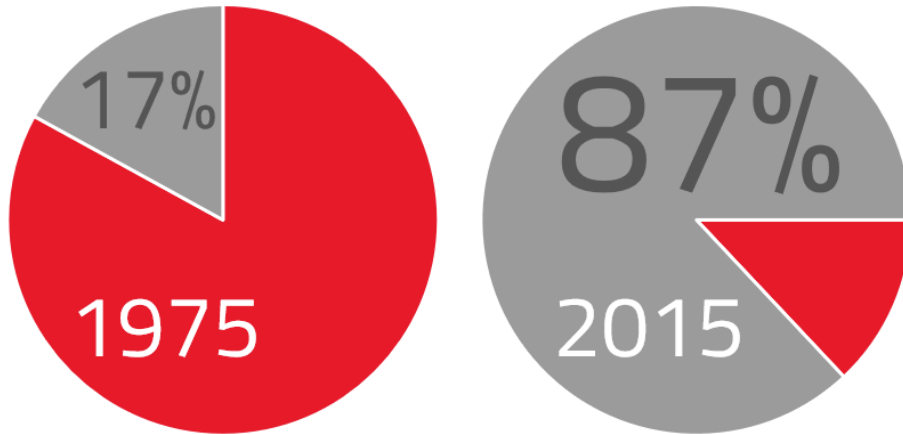




A standard 5-step process to identify and translate qualitative business benefits into financial value



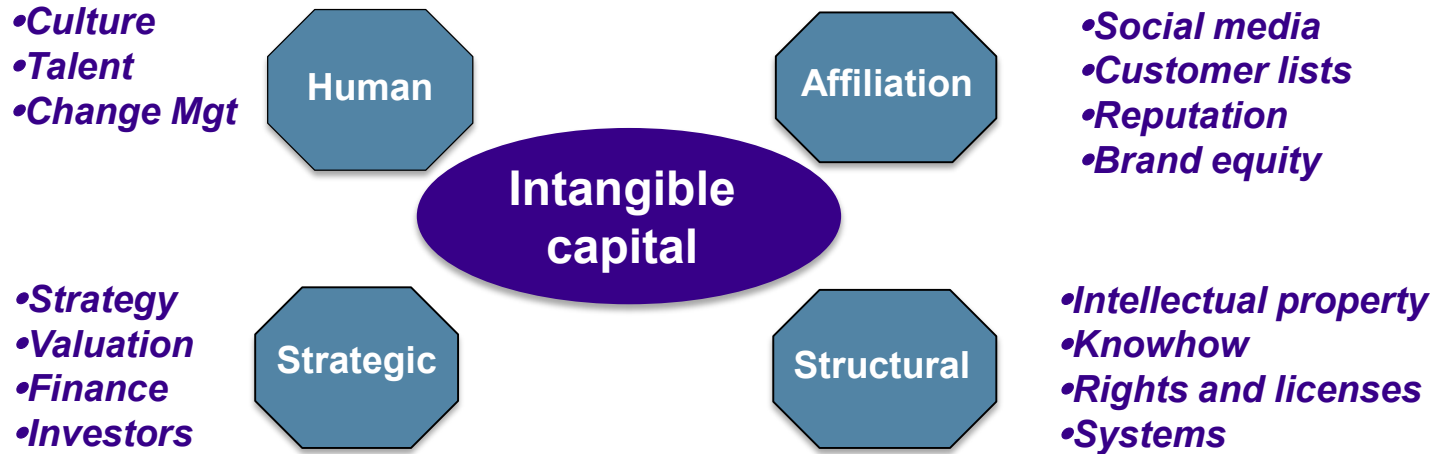
% of S&P 500 companies' market value tied to intangible assets*



*Intangible Asset Market Value Study, 2017, Ocean Tomo, LLC

- ✓ *Intangibles are only recorded on the balance sheet if they are acquired*
- ✓ *Future benefits of intangibles can be difficult to estimate*
- ✓ *Useful life can be difficult to identify*

Intangible benefits from better sustainability are more difficult to isolate and measure



Measuring impacts on intangible assets are difficult using tradition financial metrics



- Companies fail to track metrics that would enable monetizing benefits of sustainability on employee relations

Employee Impacts



- ✓ Employee engagement surveys; incoming and exit interviews; and feedback on stewardship and community engagement programs omit questions on sustainability
- ✓ Operating efficiency programs and process improvements fail to capture all the employee impacts (For example reducing toxic materials and emissions may lead to lower workers compensations claims and less absenteeism)

Consumer Impacts



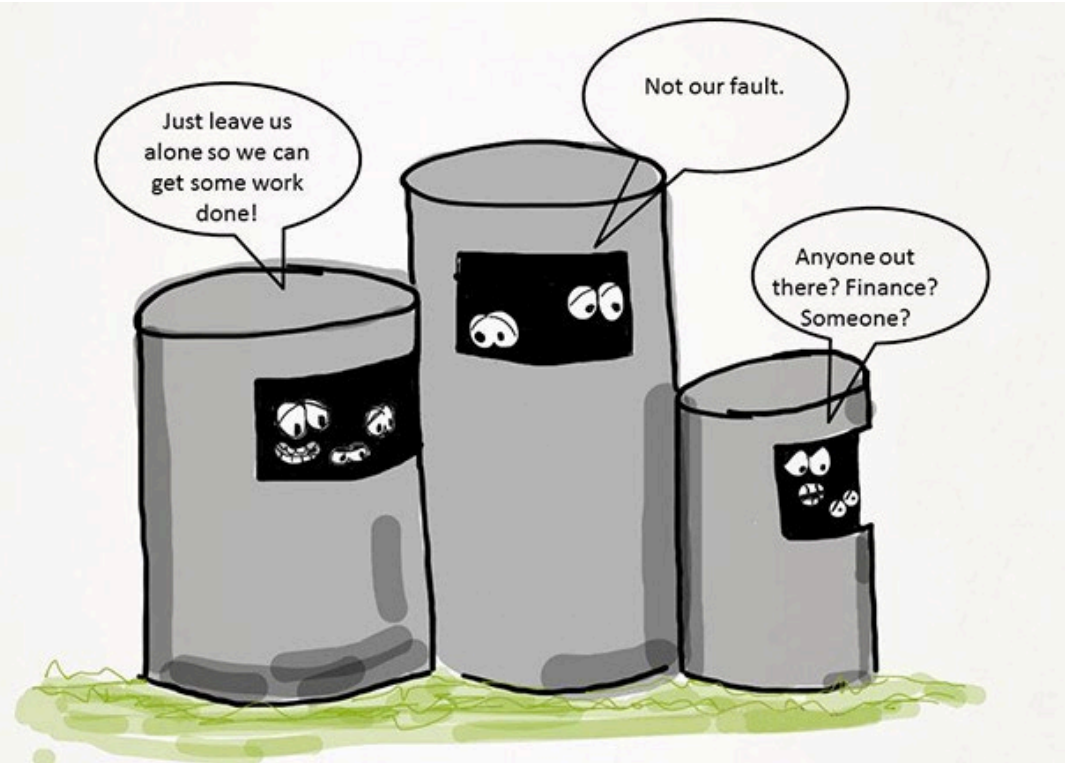
Companies are not measuring:

- ✓ The impact of sustainable product offerings on specific customer behaviors
- ✓ The impact of offering sustainable products and services on access to new consumers and/or distribution channels
- ✓ The impact of sustainability activities and messaging on consumer behaviors

Structural Challenges



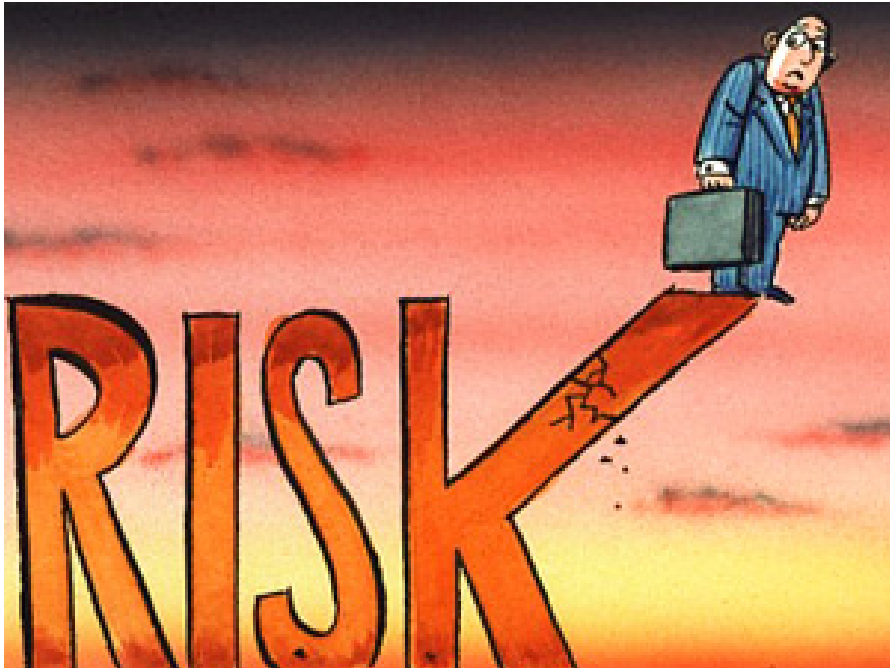
- Company systems often limit access to data and org structures hinders cross-department collaboration



Examples

- ✓ Benefits of a reliable supply chain are often underestimated—tracking compliance is often housed in legal
- ✓ Procurement teams focus on product cost and service quality – often missing benefits such as energy cost savings
- ✓ Product design departments often ignore potential product end of life recycling opportunities

- The benefits of better risk management involve reducing the likelihood (probability) and impact (severity) of a future event



Companies are not measuring

- ✓ Avoided costs are often excluded from ROI analysis
- ✓ Impacts of risk reduction on credit and equity market perception is overlooked
- ✓ And discount rates and time periods tend to be short term while climate change for instance is a long term issue



Approaches to address these weaknesses

- Use **averages and proxies** when data is not readily available
- Rely on **research** supporting linkages between sustainability strategies and financial impact
- Use **estimates** when appropriate
 - ✓ Use research and historical experience as a guide
 - ✓ Engage data owners and other important stakeholders to define
- Similar approach is used for evaluating marketing investments & returns

Let's look at specific situations and using ROSI™ to measure the impacts

DRIVING SUSTAINABLE DECISIONS

Case Studies

- *Early Decarbonization*
- *Supply Chain Resilience*

Example Case – Early Decarbonization



Canadian electricity generator, with annual revenues of \$1 billion has a generation fleet that is a mix of coal, natural gas, and renewable (wind and solar) assets. Facing a Canadian mandate to go coal-free by 2030, the organization is considering a more aggressive position to decarbonization, and is evaluating the business case for an early exit from coal-generated electricity.



Key Question:

- What are the more intangible benefits that could be accrued if the company accelerates the pace of decarbonization?

Example Case – Early Decarbonization



Mediating factor	Benefit description
Talent Management	Avoided hiring and training costs of new employees as a result of higher retention of existing employees
	Avoided labor costs as existing employee productivity improves
Risk Management	Cost avoided through better debt terms from lenders who view the company as less risky
	Cost avoided through better equity terms from stockholders who view the company as less risky
Sales and Marketing	New revenues from higher win rate of competitive bids as a result of being viewed as a more sustainable supplier
Stakeholder Engagement	Avoided costs resulting from fewer stakeholder interventions during new and renewal permitting
	Earlier accrual of revenues from new facilities as a result of faster permitting

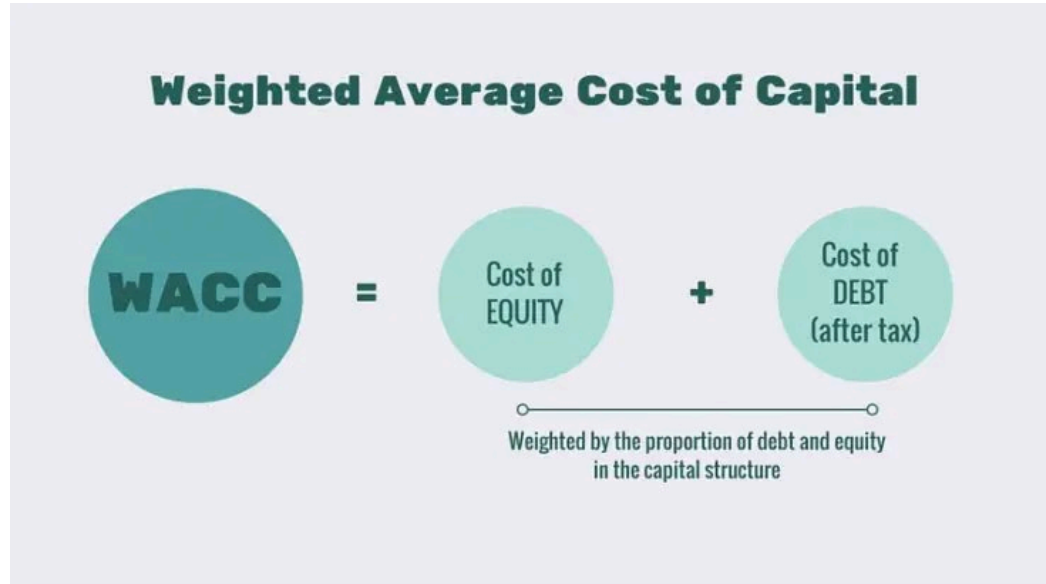
Example Case – Early Decarbonization



Benefit	Annual Benefit (CAD 1,000s)	10-year Cumulative Benefit (CAD 1,000s)
Increased productivity	439.2	4,391.8
Improved employee retention	42.1	420.5
Reduction in cost of debt	276.7	2,767.0
Reduction in cost of equity	2,376.3	23,762.7
Total	3,134.3	31,342.0



Traditional Financial Theory on changes in cost of debt and equity

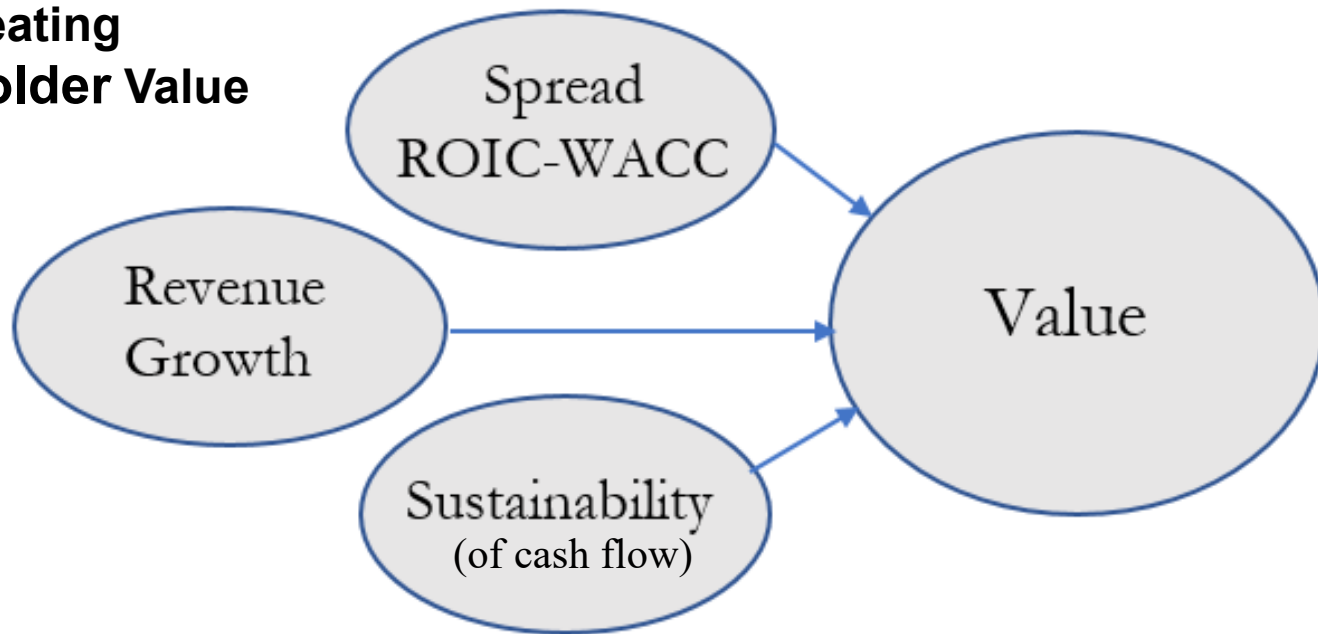


Lower cost of debt equity leads to a lower WACC and higher stock price

Example Case – Early Decarbonization



Creating Shareholder Value



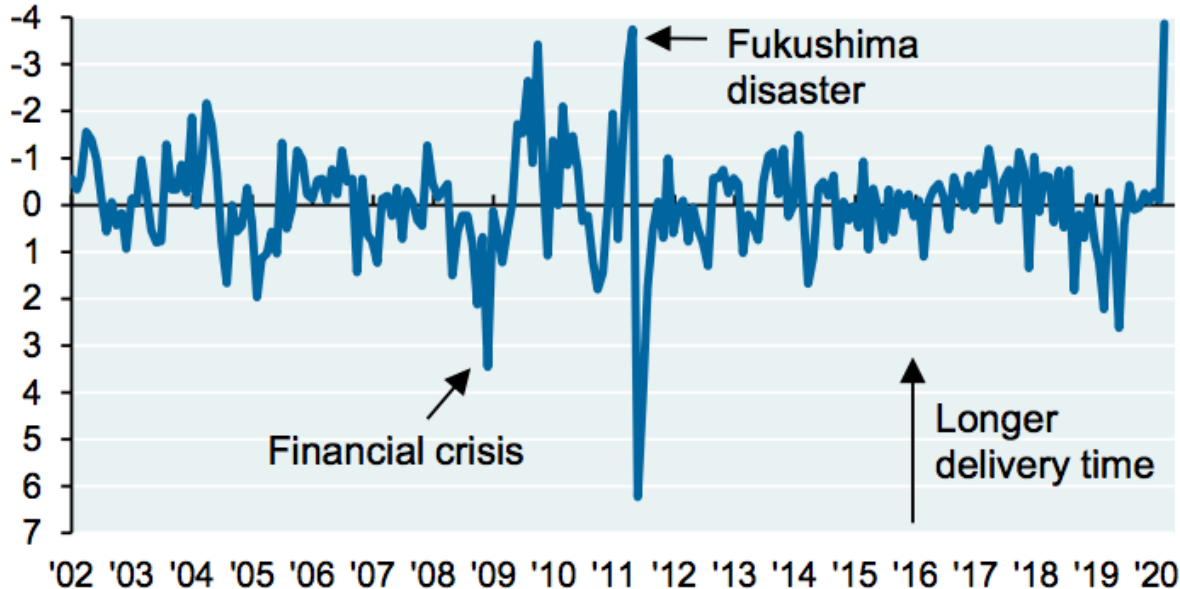
Stock value is the PV of future cash flows discounted at the new adjusted weighted average cost of capital

Example Case – Reliable Supply Chain



Change in suppliers' delivery times

m/m change in index level



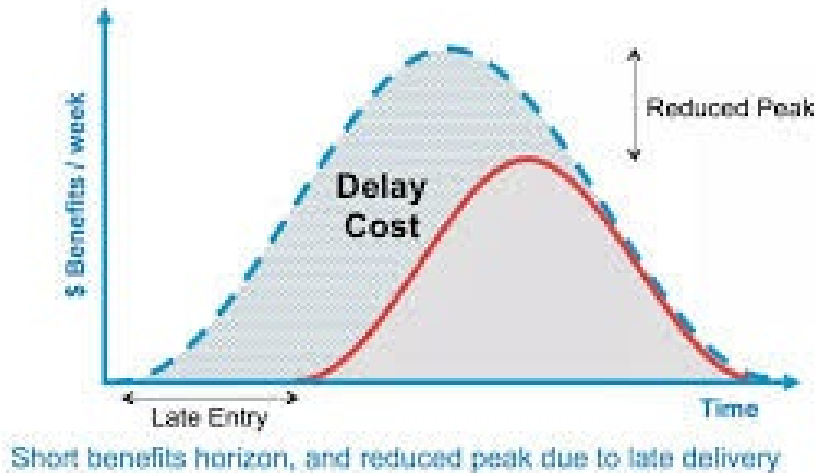
Source: Markit, Jibun Bank. Average of Japan, Euro Area, UK, and US.
February 2020.

- ***Companies seek to ensure sustainable supply chains***
- ***Non-compliance issues can lead to delivery delays***
- ***Delivery times matter***
- ***How do we measure the impact?***

Example Case – Reliable Supply Chain



Delivery delays lead to “margin erosion”



Actions to ensure compliance with sustainable standards can reduce future delivery delays

Example Case – Reliable Supply Chain



Inputs

Historical average of annual related supply disruptions

Average number of impacted orders/year	5
Average Number of days delayed per incident	10
Total average annual days impacted by delays	50
Estimated margin impact of a 30 day delay	4%
Daily rate of margin erosion	0.133%

Average expected revenues impacted per order

Average order size	\$1,000,000
Average sales mark up	200%
Average Expected Sales per order	\$3,000,000

Benefit Calculation

Expected Improvement related to sustainable strategy

Reduction in # of incidents per year	1
Revised total average annual days impacted by del:	40
Improvement in delivery delays	10
Impacted Annual Sales	\$3,000,000
Daily rate of margin erosion	0.133%

Expected savings in margin on sales	\$40,000
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Group Exercise

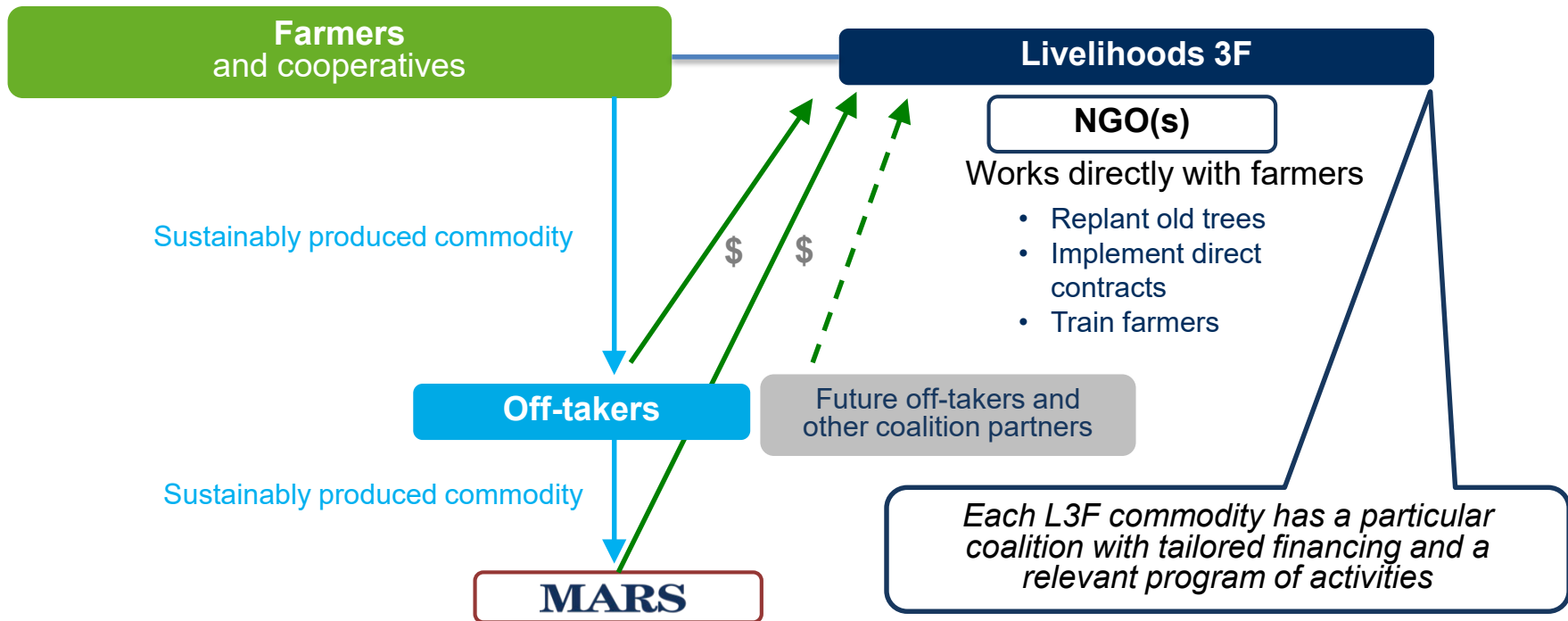
The Livelihoods Fund for Family Farming (L3F) seeks to improve the economic and social outcomes for farmers, while building a stable and sustainable supply chain that benefits all.

- The program represents a shift by Mars to a **strategic partnership** approach for sourcing products
- The L3F program objectives are to:
 - ✓ **improve farmer incomes**
 - ✓ **enable safer working conditions**
 - ✓ **Secure higher-quality, and more sustainably-produced products**



Project Overview

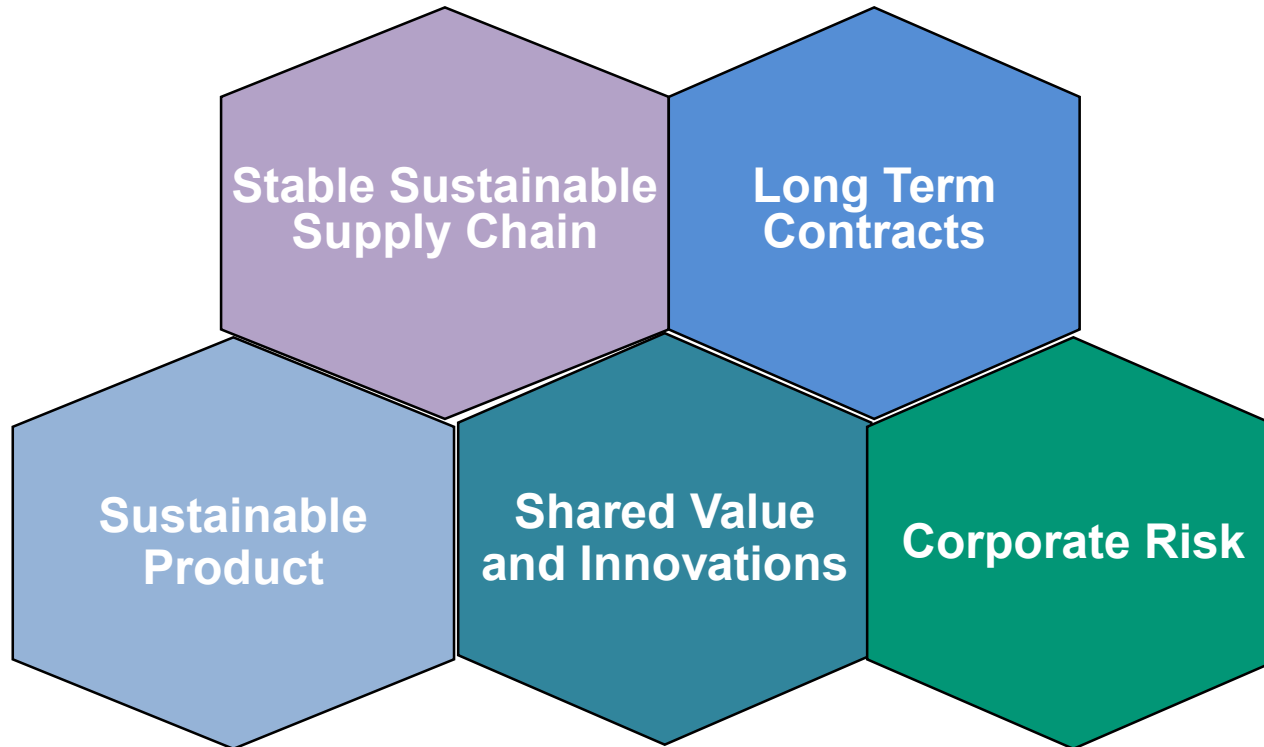
The L3F coalition pays NGOs to train farmers, organize cooperatives, and set up a direct commodity selling system





- **Identify intangible benefits and mediating factors that accrue to off-takers**
 - ✓ *Off takers:* their buy-in is essential to transition to a more strategic partnership approach to sourcing
- **Break out in Groups to develop monetization methods**
 - ✓ Provide insights *even with estimated or incomplete data.*

Five categories of strategic partnership impacts were identified



Stable Supply Source

- **Increase in number of suppliers that are professional commercial partners**
- **Reduce risk of crop loss by sustainable farming practices**
- **Mitigate price volatility through price transparency and farmers adopting sustainable practices**





Long Term Contracts

- **More efficient processes (e.g. automated invoicing) due to long-term buying commitments from customers (e.g. Mars)**
- **Increase LT strategic investments because of LT contracts**
- **Reduce distribution & storage costs because LT contracts allow for regularly scheduled harvests, processing, and export**



Long Term Contract



Sustainable Product

- **Reliable access to higher volumes of high quality product**
- **Increased revenue/profit from greater customer demand from sustainable sources**
- **Reduce waste loss or improve processing in the manufacturing**





Brand value and innovation

- **Gain new customers as a result of L3F media coverage**
- **Attract and retain the best talent because, (e.g., employee values align with the corporate commitment sustainability)**
- **Fund L3F with investments from public institutions or other external organizations**



Corporate Risk

- **Reduce reputational risk (avoiding revenue loss) from sustainability-focused scandals**
- **Reduce risk of failing to comply with regulation because of sustainability actions**
- **Reduce risk of a supply chain collapse or losing the license to operate**





- Break into Groups
- Each group will be assigned a strategic partnership impact and related benefits
- Spend 20 minutes developing monetization approaches for each benefit
- Designate a group leader to report your results



We defined our approach to monetize each benefit

<i>Benefit group</i>	<i>Name of benefit</i>	<i>Monetization method</i>
Stable, sustainable supply chain	Increase the number of suppliers that are professional commercial partners	Annual number of person days saved in maintaining current relationships with suppliers because L3F is helping to maintain relationships
	Mitigate price volatility through price transparency and farmers adopting sustainable practices	Reduced cost of capital from an expected reduction of working capital
	Reduce risk of crop loss by sustainable farming practices	Potential avoided annual revenue loss from supply shortages
	Gain direct connection to groups of farmers / suppliers (with fewer middle men)	Improvement in profit margin

Note: Depending on the commodity being assessed, not all benefits may apply



We defined our approach to monetize each benefit

<i>Benefit group</i>	<i>Name of benefit</i>	<i>Monetization method</i>
Long-term contracts	Implement more efficient processes (e.g. automated invoicing) because of long-term buying commitments from customers (e.g. Mars)	Annual number of person days saved in maintaining current relationships with existing customers (e.g. Mars)
	Increase long-term strategic investments because of long-term contracts	Reduction of cost of capital applied to portion of relevant debt because of LT contracts
	Reduce distribution costs because of long-term contracts that allow for regularly scheduled harvests, processing, and export	Annual cost savings from fixed distribution cost Annual cost savings from variable distribution cost
	Reduce storage costs because long-term contracts allow for regularly scheduled harvests, processing, and export	Volume that no longer needs to be stored times storage cost

Note: Depending on the commodity being assessed, not all benefits may apply



We defined our approach to monetize each benefit

<i>Benefit group</i>	Name of benefit	Monetization method
Sustainable product	Reliable access to higher volumes of high-quality product	Annual cost savings from fixed and variable distribution cost because of high volumes of high quality product
	Increased revenue/profit from greater customer demand from sustainable sources	Annual cost saved from having to buy high-quality product from sources outside the L3F program
	Reduce waste loss or improve processing in the manufacturing	Annual volume that was processed and year-on-year decrease in processing cost

Note: Depending on the commodity being assessed, not all benefits may apply



We defined our approach to monetize each benefit

<i>Benefit group</i>	<i>Name of benefit</i>	<i>Monetization method</i>
Brand value and innovation	Gain new customers as a result of L3F media coverage	Volume and margin for price premium for sustainable product Annual growth rate for future sustainable-product sales Annual growth rate for sustainable-product market share
	Retain the best talent because, e.g., employee values align with the corporate commitment sustainability	Cost saving from reduced voluntary turnover per new employee and how likely this due to L3F
	Fund L3F program activities with investments from public institutions or other external organizations	Multiplier applied to benefit category 1 and 3 derived from the total value of grants and co-financing programs related to L3F
	Reduced marketing spend due to improved positioning on quality, sustainably-sourced products	Annual reduction in marketing spend due to L3F
	Implement smart supply chain management tools such as solutions for traceability, drones, etc.	Annual incremental profits

Note: Depending on the commodity being assessed, not all benefits may apply



We defined our approach to monetize each benefit

<i>Benefit group</i>	<i>Name of benefit</i>	<i>Monetization method</i>
Corporate risk	Reduce reputational risk (avoiding revenue loss) from sustainability-focused scandals	Avoided cost from annual revenues at risk due to reputational damage without the L3F program
	Reduce risk of failing to comply with regulation because of sustainability actions	Avoided cost from typical government fines and potential future taxes, duties or export restrictions
	Reduce risk of a supply chain collapse or losing the license to operate	Avoided cost from share of profits at risk without L3F
	Reduce cost resulting from better stakeholder relations and more efficient processes	Annual number of person days saved from better stakeholder relations

Note: Depending on the commodity being assessed, not all benefits may apply

DRIVING SUSTAINABLE DECISIONS

How to Implement ROSI™

Incorporating ROSI™ across financial processes helps embed sustainability in corporate strategy & culture

- **Annual planning**
- **Strategic planning**
- **Investment & capital allocation decisions**
- **Strategic partnership development**



Senior management buy-in facilitates implementation

Implementing ROSI™ - Tools Available



ROSI™ tools are available on our website for the following industries and applications

- ✓ Talent Workshop: ***How to Measure ROSI™ Through Attraction, Productivity, and Retention*** (Excel Download)
- ✓ Risk Workshop: ***How to Measure ROSI™ from Improved Risk Management*** (Excel Download)
- ✓ Operational Efficiency Workshop: ***How to Measure ROSI™ from More Efficient Operations*** (Excel Download)
- ✓ **Deforestation-free Supply Chain Commitments**
- ✓ **Commodity Supply Chains**
- ✓ **Automotive Industry**

www.stern.nyu.edu/experience-stern/about/departments-centers-initiatives/centers-of-research/center-sustainable-business/research/csb-monetization-methodology



“The coming years will be a vital period to save the planet and to achieve sustainable, inclusive human development.”

António Guterres
Secretary-General, United Nations

BCG/MIT finds that whereas 90% of executives find sustainability to be important, only 60% of companies incorporate sustainability in their strategy, and merely 25% have sustainability incorporated in their business model.

No time like the present to be a champion of the Business Case for Sustainability!



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