Accelerating Fashion Decarbonisation

An efficient approach to unlocking corporate value and financing the supply chain transition

Published March 11, 2026

Executive summary

Collective challenges
The need to decarbonise fashion is recognised. Pressure is mounting to act on a globally dispersed and resource intensive supply chain, which accounts for the bulk of carbon emissions in fashion. Yet while the imperative is clear, progress is obstructed by three interlinked hurdles.

- **Unclear corporate value of financing scope 3 decarbonisation**
  Brands recognise the need to transition their supply chains, but many struggle to express how long-term decarbonisation investments can generate financial value. Traditional financial models prioritise near-term returns, making it difficult for CFOs to weigh long-term climate resilience against short term profitability. Intangible impacts, evolving regulation, and inconsistent reporting frameworks further complicate decision-making.

- **Complex and fragmented supply chains**
  The supply network for the fashion industry spans tens of thousands of often small and medium sized manufacturers across multiple tiers. Visibility declines sharply beyond tier 1, with limited access to primary data, inconsistent standards, and varying regulation. Carbon accounting rules mean that even when brands finance supplier improvements, the benefits are proportionally shared among all customers, creating a “free rider” dilemma. These dynamics hamper co-ordinated action and make progress slow.

- **A lack of relevant financing tools**
  Although sustainable finance has grown rapidly, existing instruments are not designed for fashion’s granular decarbonisation needs. Supplier level projects often require modest capital outlays with long payback periods, making them less attractive for investors. Banks and financial institutions also face limited data transparency, regulatory inconsistency, and high perceived risk. Without aggregated financing vehicles, risk sharing mechanisms, and sector specific structures, climate finance can struggle to reach the tiers where it is most needed such as mills, dye houses, and processing units.

Actionable solutions

The fashion industry has the opportunity and the imperative to accelerate its decarbonisation activities. This will require deeper collaboration. No single brand, supplier, investor, or NGO can deliver the transition alone

- **Linking impact to financial value,** reframing decarbonisation as a driver of risk mitigation, resilience, and long-term enterprise value can be achieved through the creation of structured investment frameworks. Internal sustainability investment functions can align KPIs and capital allocation with targeted decarbonisation outcomes and set the cost of action against the long-term cost of doing nothing.
- **Industrywide collaboration,** to mitigate complex and fragmented supply chains. No single brand or supplier can decarbonise shared, multi tier supply chains alone. Customized industry platforms are required to bring together brands, suppliers and other third parties that can ensure cost efficiency, harmonised standards and aggregated data. These can enable trust between competing brands and their suppliers. They are the infrastructure that turns individual efforts into collective impact.
- **Scale decarbonisation through new financing models** that bundle supplier projects and unlock blended capital through aggregated, de risked platforms. Small, dispersed supplier projects are too risky and too granular for conventional finance. Bundling them into sector specific, customised blended finance vehicles allows public, private, and philanthropic capital to co invest at scale to reach the tiers where decarbonisation is most needed.

Conclusion

Fashion retailers and their suppliers recognise the challenge ahead, and the need to address it. Many are taking actions to secure a more sustainable, and resilient future for their supply chains. The need now lies in how to accelerate these efforts and build the scale that can generate collective value in fashion supply chain decarbonisation. To achieve this close collaboration will be key. Aligning around common standards, collectively investing in shared infrastructure and adopting new agile financing solutions has the potential to unlock the scale needed for change.

CFOs, who have a fiduciary duty to protect the future of their business can play a pivotal role in this process. Integrating climate risk into capital allocation and championing cross industry financing models will help them steer their organisations towards collective long-term value creation for the entire fashion industry.

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Foreword [1]

Adam Karlsson
CFO H&M Group

For the fashion industry, the transition to net zero is no longer a question of intent. The direction is set, technologies to decarbonise exist, and expectations from regulators, investors, and consumers continue to rise. What matters now is disciplined execution, turning climate targets into investment decisions that are financially robust, operationally realistic, and scalable across complex global supply chains.

As CFOs, our role is not to debate whether sustainability targets should be met, but to ensure how they are delivered. This requires a conversation combining cost efficiency and value creation: reducing risk, strengthening resilience, and safeguarding long-term corporate value. When progress stalls, it is rarely due to lack of capital or solutions. More often, it is because the value chain lacks aligned incentives, clear governance, or a direct link between climate impact and financial value.

Decarbonising supply chains not only requires significant investment, but also new financial structures, shared standards, and collaboration across brands, suppliers, and financial partners. In a fragmented industry like fashion, individual action is not enough. Collective financing models can unlock investment at the scale required and reward early movers who help accelerate system-wide change.

At H&M Group, we have focussed on improving the quality of our climate investments: prioritising interventions with the strongest abatement potential, applying consistent financial and impact metrics, and learning through implementation. From supplier-level investments to pooled and blended approaches that help overcome scale and risk barriers. This has helped us move from aspiration to delivery, reducing our scope 3 emissions by 30% since 2019, while strengthening our supplier partnerships.

This paper is intended as a practical resource for finance leaders who see strategic value in reducing the cost of decarbonisation collectively. It does not prescribe a single model but offers a framework to translate climate ambition into executable investment pathways. The opportunity now is to use these tools in capital allocation, risk management, and collaboration, to accelerate decarbonisation in a way that strengthens both individual business resilience and the long-term resilience of our industry.

Foreword [2]

Anna Ryott
Nordic Chief Impact Officer and Partner, Ernst & Young AB

The moment for decisive action is here. Across the fashion industry, the opportunity and need for sustainability ambition is clear. While leading players have innovated and set high bars for action, expectations are intensifying to move from setting targets to delivering concrete results. Building on the call to action in this paper, the industry has a powerful opportunity to align, mobilise and accelerate progress towards a more sustainable and resilient fashion ecosystem.

At EY, we work alongside leading organisations to turn bold ambition into real impact – embedding sustainability into financial decision making, governance and core operating models, facilitating transformative long-term change across industry ecosystems. Finance and CFOs play a pivotal role in this shift: linking impact with value creation, strengthening accountability and directing capital to where it drives the greatest long-term benefits.

This is especially critical in global value chains, where the majority of the industry's environmental footprint resides. Decarbonising and future proofing these value chains demand more than isolated initiatives. It requires scalable financing models, aligned incentives and deeper collaboration between brands, suppliers and financial actors.

This white paper shares actionable insights into how financial tools, governance, and partnerships can drive measurable progress on scope 3 emissions, boost supply chain resilience, and enhance business performance. Investing in decarbonisation not only meets environmental imperatives but also strengthens operational resilience and competitiveness.

We aim to inspire more CFOs, finance leaders and fashion brands to engage with the insights and opportunities outlined. The urgency to act is clear: collaborative financing offers a pathway to unlock new business value, drive innovation and accelerate the pace of change across global supply chains. Together, we can help move the fashion industry forward - one that rewards bold action, shared ambition and a commitment to long-term value creation. And we are convinced that those who drive that change are the ones who will shape the future with confidence.

About this white paper

This paper explores using sustainable finance to decarbonise supply chains in the fashion industry using the lens of the obstacles that brands will need to overcome and the proposed solutions to the challenges faced.

The paper has been developed by H&M Group in close collaboration with EY, supported with insights from HSBC and the Apparel Impact Institute (Aii), to share an industry perspective based on H&M Group's experience of financing decarbonisation investments in scope 3 and a supporting outside-in perspective of financing decarbonisation from EY, HSBC and Aii.

Its purpose

This paper provides insights on ways to accelerate sustainability investment in the fashion industry by advocating how a scaled approach to financing supply-chain decarbonisation may be structured and supported.

It seeks to support change by sharing solutions and leading practices that, as explored in detail later in this paper, demonstrate the ability of fashion brands to add and protect corporate value through investing in this area, augmenting the business case for investment, collaboration and scale.

In doing so, it highlights sustainability not only as an environmental imperative but as a strategic value driver - enhancing operational resilience, reducing long-term risk exposure, and improving the financial performance and competitiveness of fashion value chains.

Its limitations

The ambition of this paper is not convincing corporates to decarbonise. Instead, it seeks to provide insights on how to finance decarbonisation. Limitations have been applied to ensure this paper stays in scope.

The following topics are not included as detailed discussion points, but may be covered more broadly as part of the overall context for the fashion industry:

- The expected corporate value losses that could be incurred by climate change
- The expected development of GHG protocols and regulations
- Detailed exploration of regulatory frameworks, policy, incentives and carbon taxes
- Specific fashion-related decarbonisation solutions that need to be invested in
- Scope 3 data quality issues and how to solve them
- Regenerative agriculture or recycling as a source of low carbon materials

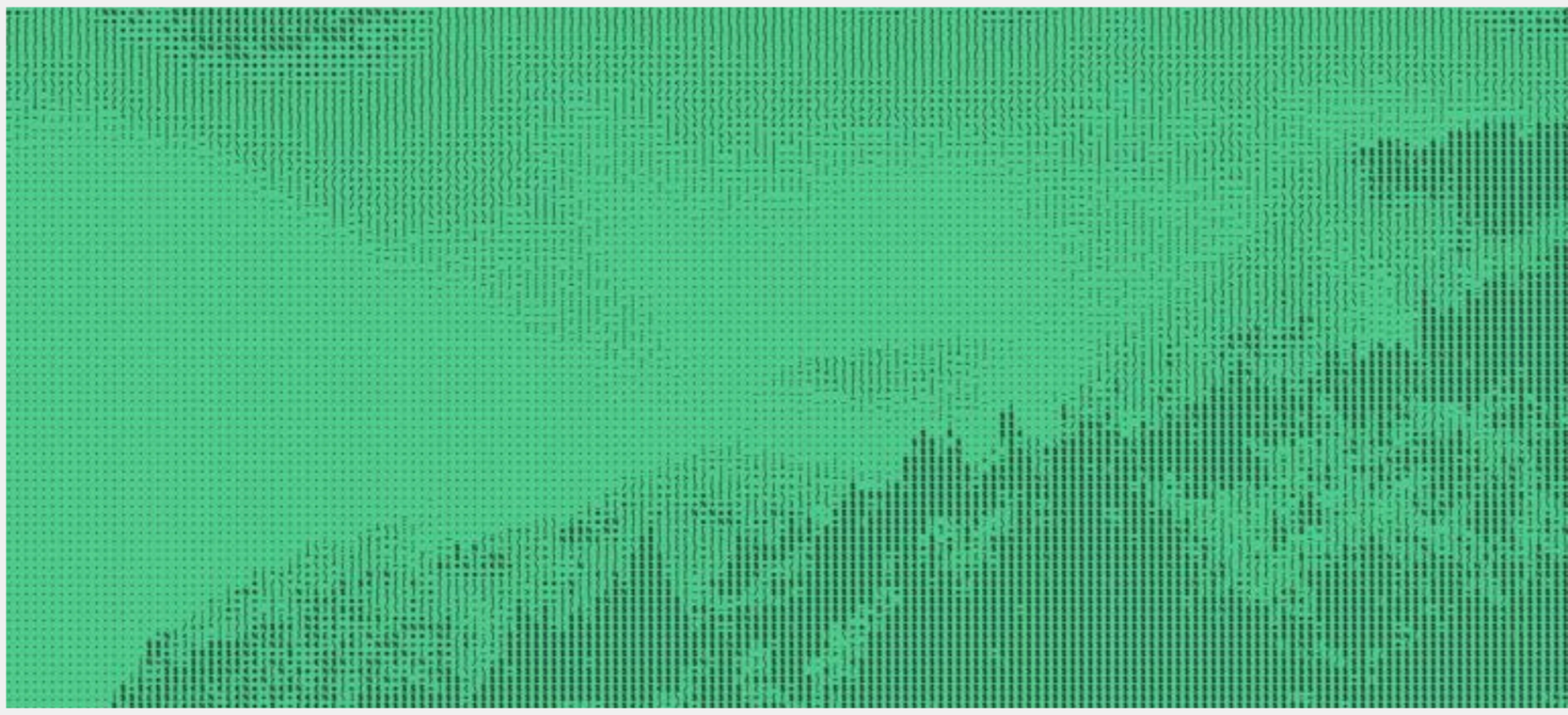
Introduction

The global context

Climate change indicators continue to show an overall worsening trend. The global temperature is rising and is projected to increase beyond the Paris Agreement goal of limiting warming to well below 2°C and pursuing efforts to limit it to 1.5°C.

It is critical for the world to decrease GHG emissions to avoid severe long-term environmental, social and economic challenges. The effects of climate change are being more readily felt than ever. The year 2024 was the hottest on record according to the World Meteorological Organisation, with the last 10 years collectively accounting for the warmest decade recorded. Climate disasters are escalating, costing the global economy nearly $3 trillion since 1980. The future impact will be even more costly, with the Climate Policy Initiative predicting a potential cost in excess of one quadrillion dollars. More pressing than financial cost is the threat to human, animal and marine life on the planet.

The imperative for addressing climate risks is clear but making changes is difficult. The Climate Policy Initiative and OECD put the required financial investment for mitigation and adaption at between $5 trillion and $7.5 trillion each year between now and 2030. This amounts to 4%–6% of global GDP, equivalent to the annual GDP of Germany. Looking beyond 2030, more than $8.8 trillion in annual investment is required through 2050 to stay within the Paris Agreement goal. Current investments are a drop in the ocean as governments and businesses also navigate economic volatility, conflict, rising living costs and high debt levels. At the heart of making positive change is the need for sustainable finance mechanisms to deliver it. As the Union of Concerned Scientists put it: “The lack of finance for a clean energy transition and adaptation from richer nations - a critical part of the Paris Agreement - remains an ongoing obstacle to securing bold and fair outcomes.”



The role of the fashion industry

The fashion industry is a significant contributor to climate change and has a collective responsibility to help address it. The sector accounts for 2-8% of global GHG emissions, depending on how it is measured, with some estimates as high as 10%. Fashion also creates a host of related environmental and climate-related challenges including plastic use, clothing waste, microplastics, water consumption, resource intensity and pollution. While around 70 fashion companies have signed up to the UN Fashion Charter to meet net-zero targets by 2050, just two of these companies disclose targets that meet the UN Charter's criteria for a 50% reduction across all scopes by 2030. Progress against any targets has been difficult to achieve, not least because the bulk of GHG emissions in fashion lie beyond the immediate control of fashion brands. Over 95% of GHG emissions from leading fashion brands are designated as scope 3 and almost 80% of these emissions are a result of upstream activities for purchased goods and services. Apparel supply chains can be long, fragmented and complex. From source to sell, a fashion product will invariably go through multiple carbon intensive stages involving heat, steam and electricity, as well as travelling long distances through distribution networks.

But if fashion is widely perceived to be a big part of the problem associated with carbon emissions, it should also be considered part of the solution. Fashion is a multi-trillion-dollar industry that contributes around 2% to the global economy and directly employs over 60 million people, with multiples of that number indirectly reliant on the textile industry for some part of their income. Many of those are also based in countries or regions most vulnerable to the impact of climate change.

Fashion retailers also have direct access to consumers and can influence their behaviours as well as meeting rising customer expectations on sustainability. Globally, a significant proportion of fashion revenues can be accounted for by a relatively small number of companies, meaning that collective action can have a more tangible impact. They are also accountable for large, global value chains which means that actions taken by leaders have the potential to cascade through supplier networks around the world to support positive change across countries and regions. This means that apparel retailers can generate operational, strategic and cultural impact with customers, partners, suppliers and their peers.

“For H&M Group, sustainability and finance are inseparable. Our transition towards a net-zero business model depends on disciplined capital allocation to move us towards a fairer and more resource-efficient future. Sustainability becomes real when strategy is backed by capital: finance is the engine that turns commitments into measurable progress, supported by clear KPIs and governance.”

Leyla Ertur, CSO, H&M Group

The case for sustainable finance

Sustainable finance is maturing, with the biggest shifts coming through electrification of the most energy consuming processes, and the increased use of renewables in electricity generation.

Rapid electrification at scale demands vast investments in existing and new infrastructure, processes, equipment and energy sources. The Apparel Impact Institute (Aii) and Fashion For Good (FFG) estimate the total investment needed to reach net zero in fashion by 2050 to be $1.04 trillion.

Fashion retailers faced with meeting this investment requirement must also invest to maintain and grow their business in an uncertain environment. This creates a Catch-22 for CFOs who must balance long-term value creation with short-term profitability.

Aii and FFG agree brands can play a key role as financing facilitators or multipliers for the decarbonisation investments that suppliers need. In a normal business context, changes in running costs will be included in the price the brands are paying. However, making a case to invest in decarbonisation can be hard to justify for suppliers. While energy efficiency measures are often profitable with relatively quick payback periods, more substantial upgrades - such as replacing carbon-based energy sources with renewable energy - rarely have a direct financial benefit, or the payback time is very long. These economics often discourage suppliers from acting independently. A stronger business case can be made by offering business support and access to favourable financing.

Crucial to this, given the reliance brands have on natural resources and exposed supply chains, would be consideration of the opportunity costs and indirect impacts related to inaction, such as the potential scarcity, damage and economic impact climate-related events could cause to future business resilience.

Fashion brands that are serious about accelerating progress towards net zero, must be willing to share the financial responsibility. By committing to co-finance decarbonisation efforts, brands can reduce the financial burden on suppliers and unlock climate action that would otherwise be stalled. As shown in this white paper's case studies, this approach potentially leads to accelerated emissions reduction and stability of the supply chain. But like all solutions, sustainable financing has its challenges.

“At The Fashion Pact, we see climate action as a long-term business imperative and key to resilience. With shared suppliers, progress depends on coordinated commitments that give them the support and resources to invest in change. Collective action and financing send united signals to the market, essential to accelerating the transformation our industry needs.”

Eva von Alvensleben, Executive Director and Secretary General The Fashion Pact

The challenges of sustainable finance in scope 3

Scope 3 emissions are loosely defined as all the indirect emissions that occur in a company's value chain. To address the upstream part of these emissions, brands need to convince a complex and fragmented network of suppliers and their subcontractors to decarbonise across multiple tiers of supply that serve numerous, sometimes competing, apparel companies. Pragmatically, there are three approaches that can be taken:

1. **Let the supply chain decarbonise at their own pace** – Minimal cost and organisational effort but slow, uneven and creates future risk from Extended Producer Responsibility regulation and price volatility as suppliers invest to catch up, rather than exceed targets.

2. **Prioritising suppliers with fewer emissions** – Resolves operational and reporting challenges as well as incentivising change but can mean higher operational costs and does not address the issue of supply chain decarbonisation systemically.

3. **Actively engage with suppliers to demand, support and enable decarbonisation** – The most effective approach to securing long-term change but creates complexity and cost challenges in the shorter term (this requires collaboration across fashion brands and is the main topic of this white paper).

While there is a broad understanding of decarbonisation challenges in the fashion supply chain, views differ around the roles and responsibilities of brands. Few brands are actively financing decarbonisation in their supply chain at scale. Most understand the need for investment, but many have difficulties making a business case out of it and how to operationalise suppliers' decarbonisation investments. H&M Group is seeing three main hurdles for hesitant brands to overcome in their efforts to finance at scale, whose hypotheses for solutions will be the outlined in the solution section of this white paper:

1. **Unclear corporate value of financing scope 3 decarbonisation** – A hurdle that can be approached by building an understanding of how decarbonisation can drive value and change mindsets needs to be built, rather than seeing initiatives as a cost.

2. **Addressing complex and fragmented supply chains** – A hurdle which solution lies in understanding how to in partnership target investments and drive scale in a complex and multitiered supplier network.

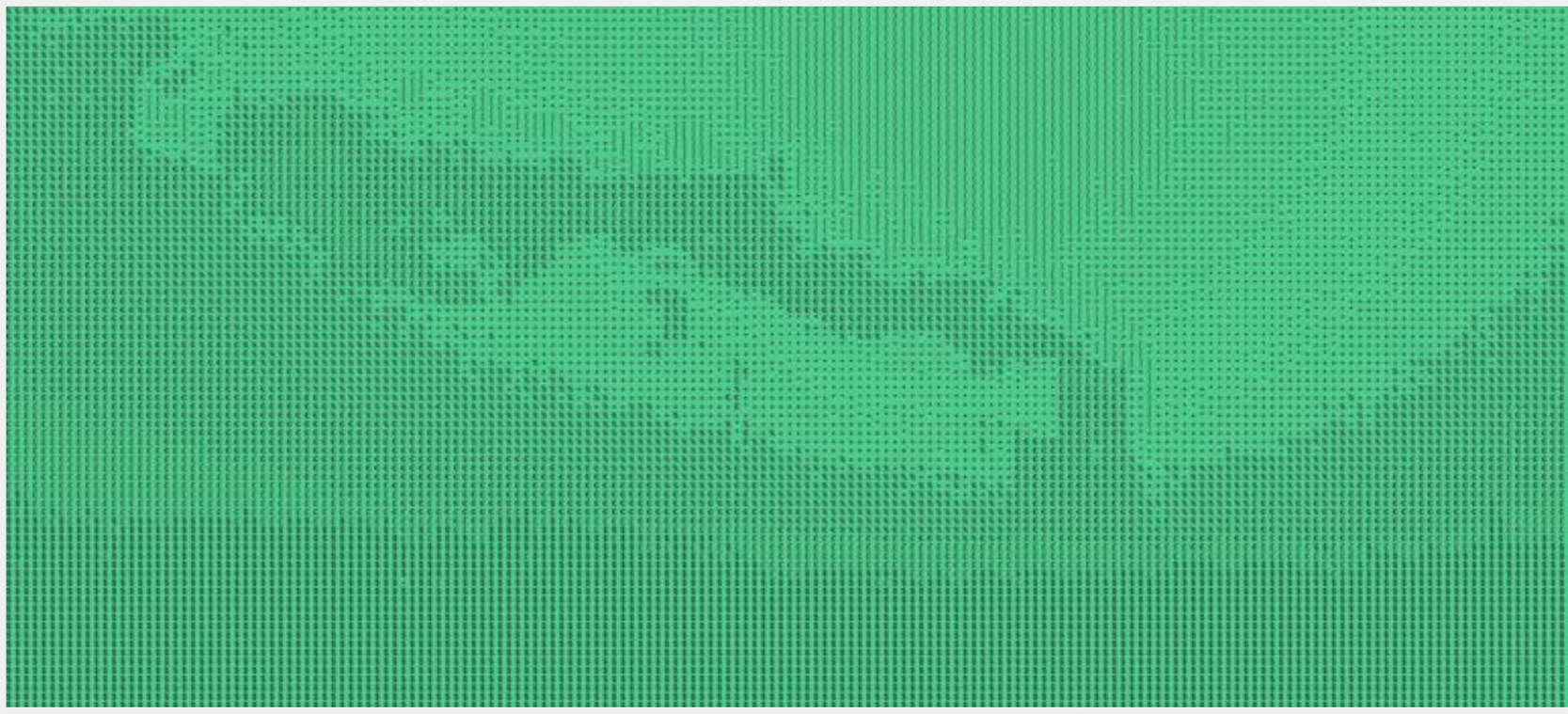
3. **A lack of relevant financing tools** – A hurdle requiring tools for sustainable investment financing to be created at a scale that fashion brands and the investor community can collectively engage with.

"Keeping the pathway of 1.5°C requires exponentially scaling value-chain decarbonisation by making scope 3 action investable and decision-grade. The strongest models tie capital to verifiable outcomes, credible baselines and transparent attribution."

Katarina Wangler Björk, Chief Impact Officer, Exponential Roadmap Initiative

Hurdle 1

Unclear corporate value of financing scope 3 decarbonisation



The need to tie everything to financial value

When discussing how to finance decarbonisation, the most common questions from sustainability leaders are typically:

- “How do we pitch this to our CFO?”
- “What business case can I take to the board for this?”
- “How can I show and measure the value this creates for the business?”

These questions are not unique to fashion, or to the wider retail sector, but span boardroom conversations and corporate sustainability events around the world. CFOs operate in a context where capital must deliver clear and timely returns, and long-term decarbonisation initiatives naturally compete with projects that improve performance more immediately.

The EY CEO Outlook 2026 survey points clearly to the tension between prioritising sustainability in the short and long-term. Eighty-one percent of the leaders questioned agree that the deprioritisation of environmental issues and broader climate inaction in boardrooms poses significant long-term risks that remain underappreciated. But in the next 12 months, just 22% see sustainability and ESG-related pressures as one of the top three challenges to achieving their financial targets, and just 10% are rethinking their portfolios to address ESG priorities (compared with 44% who are shaping portfolios for financial performance).

Leaders clearly recognise the value in sustainable investments, but struggle to express or measure this value, especially on a short-to-mid-term basis. Yet as climate-related disruptions and supply chain risks become more financially material, such investments increasingly represent a strategic opportunity to safeguard competitiveness and reduce the growing cost of inaction.

Commercial drivers as the main reason for sustainability ambition – Insights from an EY survey

Nordic sustainability leaders see commercial drivers as the main reason for sustainability ambition and a need for C-suite collaboration. The maturity of sustainability is perceived to be relatively high in the Nordics, which is home to numerous large global companies. To gauge the temperature, challenges and leading practices of sustainability in Nordic companies, EY recently interviewed around 35 large-company CSOs from the region to explore the integration of sustainability into their business.

Interviewees unanimously agreed that sustainability builds competitive advantage and about three-quarters identified commercial or financial factors such as new revenue streams, access to capital and increased customer loyalty as the top drivers.

However, when asked about the main challenges, commercial factors were also identified by about half of the participants with responses including providing a financial return on investment, a lack of customer demand for sustainability and an unwillingness to pay more for sustainable products.

To overcome these and other challenges, CSOs were almost unanimous in their response that C-suite and top management sponsorship is vital. In comparison, other seemly important measures to overcome challenges such as a clear means to handle goal conflicts, implementation of internal carbon pricing, and performance management and incentives received limited number of responses.

Furthermore, while the majority of CSOs saw themselves as primarily responsible for integrating sustainability into business strategy, they also saw a key role for the CFO in co-owning, or taking control of, sustainability reporting and many saw an imperative for the CSO, CFO and Strategy Officers to collaborate in setting and implementing an integrated strategy to future-proof their companies.

“The fact that the financial returns of sustainability investments are both a key driver and challenge for decarbonisation shows the need for ecosystem collaboration to collectively define what creates value”

Helena Nordström Ernbo, Partner and Sustainability Consulting Leader, Ernst & Young AB

The intangibility of impact

Impact accounting has long been discussed in academic circles as a critical tool for companies and investors to use for allocating capital, managing risk, and addressing regulatory compliance. These considerations have the potential to elevate sustainability investments into a fiduciary duty for companies.

But the absence of tools in corporate finance that can assess, quantify and support impact investments presents a challenge to any CFO looking to balance the books. Sir Ronald Cohen, Chair of the IFVI, likens today's situation to the lead up to the Wall Street Crash in 1929, which forced the introduction of GAAP accounting and auditing. During an event at New York Climate week in 2024, he highlighted that in the in the aftermath of the 1929 crash, investors realised that they had been investing without understanding what profits companies were making. And that today we are in a similar position. Further, he mentioned that $30 trillion+ is invested in companies with the aim of achieving improved impact but without a reliable measurement system.

Proponents of impact accounting believe that companies will be publishing audited impact statements alongside financial results within the next five years. However, for the finance leaders of today, a lack of short or mid-term returns for long-term decarbonisation investments creates a prioritisation gap between impact investments and profit-first investments.

Transitioning to long-term value
The EY New Economy Unit

Transitioning to a new economy requires a fundamental shift towards a regenerative model that prioritises human and planetary flourishing.

Five key principles underpin this transition:

1 Sufficiency: promoting both sustainable types and sustainable levels of production and consumption, so that everyone, everywhere, has enough to meet essential needs and enjoy a good quality of life within ecological limits.

2 Circularity: treating waste as a design flaw, turning linear systems into loops.

3 Systems thinking: Understanding the relationships, dynamics and causal links within and between systems in order to design effective interventions.

4 Value redefined: Expanding beyond financial returns and monetary measures, recognising the multiple dimensions of a thriving economy and society.

5 Equity and justice: rethinking distribution systems, ownership structures and norms with the goal of achieving shared and lasting prosperity for all.

Translating this into impact at scale – beyond ambitious action from businesses – depends on effective capital flow into transition solutions.

The financing gap for decarbonisation is caused by a set of structural barriers that prevent existing capital from flowing to where it is most needed.

There is ample capital available in developed markets, but investors lack sufficient information and risk visibility to deploy it, especially in emerging markets where decarbonisation needs are highest.

Key measures to remove these frictions include improving project transparency, supporting with expertise on the ground to assess local conditions, and leveraging multilateral development banks to reduce political and economic risk. Additionally, strong, public-policy demand signals create predictable markets, while standardised financing instruments accelerate investment.

The evolution of KPIs

To evaluate long-term value, looking beyond short-term financial returns and rethinking ownership and business governance are crucial. Alternative models, such as stewardship-ownership, perpetual purpose trusts, or “veto-share” arrangements are ways businesses have taken first steps to create governance models and KPIs that align incentives with long-term purpose. Suggested measures include mainstreaming performance metrics in the context of environmental and social thresholds and providing sustainability-based compensation for executives tied to long-term targets.

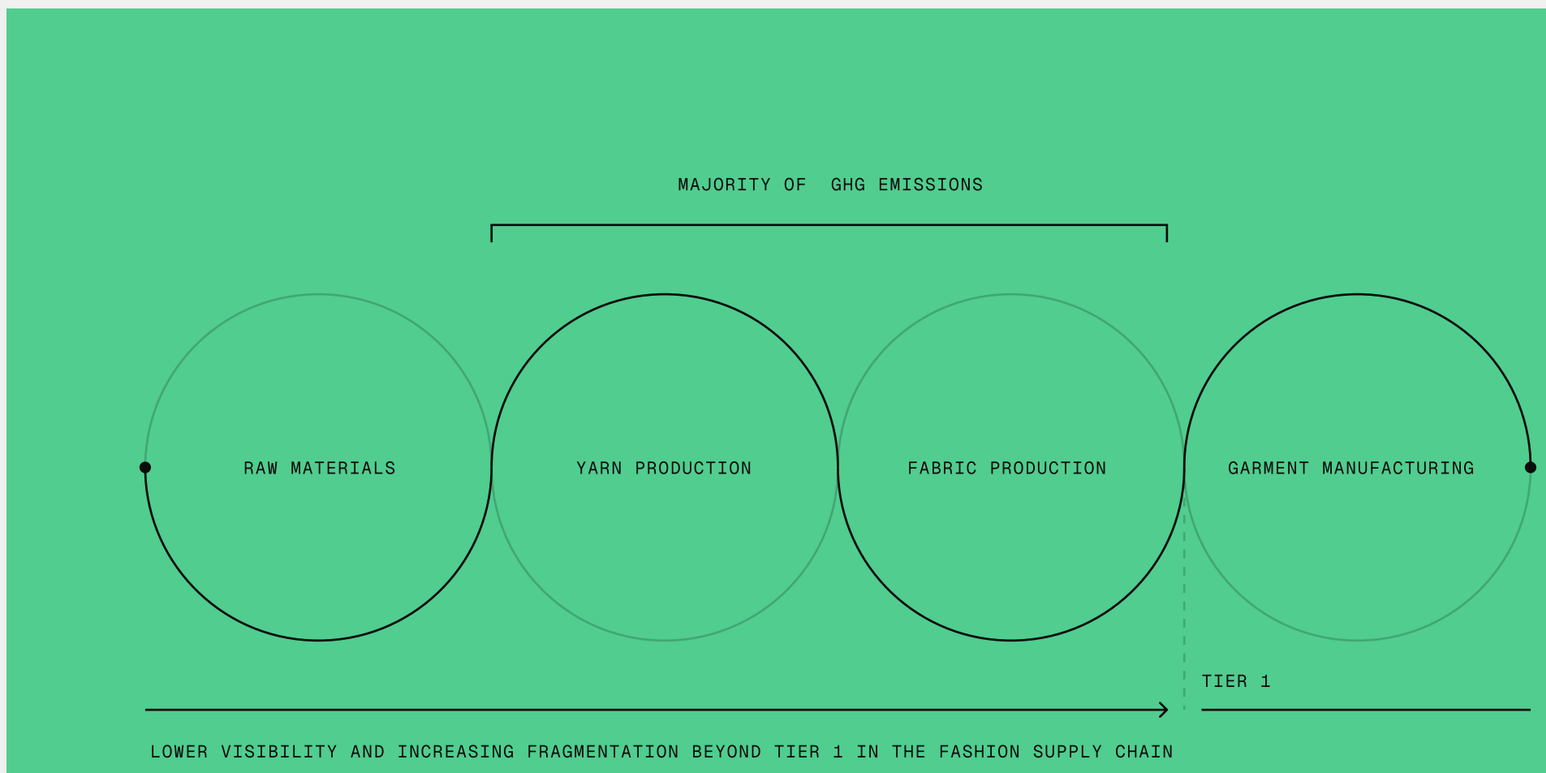
This also means ensuring long-term KPIs reflect a multi-capital value model, which recognises the importance of healthy stocks and flows of all forms of capital - natural, human, social, and relationships - in a thriving economy. By integrating these into decision-making processes, fashion retailers can more easily align financial goals with sustainability objectives.

Financing fashion decarbonisation is not merely a question of cost, it is a strategic imperative for a fair transition to avoid extractivist patterns that shift the burden onto suppliers.

Hurdle 2

Complex and fragmented supply chains

FIG.1 : DECARBONISING FASHION THROUGH A FRAGMENTED SUPPLY CHAIN IN MULTIPLE TIERS



For a fashion brand, the majority of its scope 3 emissions come from its upstream value chain. The largest share is usually associated with producing the products sold - particularly the energy-intensive processes of fibre processing, spinning, weaving, knitting, dyeing and finishing.

In order to meaningfully reduce its own scope 3 footprint, the brand's suppliers therefore need to decarbonise their scope 1 and scope 2 emissions.

This creates an inherent dependency: decarbonisation for a brand is only possible if change happens across a globally connected ecosystem that it does not directly control.

One key hurdle is that fashion production is highly dispersed, with complex, multi-tiered supply chains which make co-ordinated action and full visibility increasingly challenging.

The fragmented supply chains create five key challenges

1 **Lack of visibility beyond tier 1** – Tier 1 suppliers are often closely involved with garment design and manufacture, and brands should have broad visibility into their activities. Accountability for sustainability targets can be incorporated into procurement contracts.

But these tier 1 suppliers have their own network of tier 2 suppliers, often located further afield. A single garment might pass through separate facilities for weaving, dyeing and finishing, each with different ownership and traceability protocols.

Beyond this, tier 3 and 4 suppliers create further visibility difficulties as fibre processors and raw material producers extend the supply network to businesses ranging from cotton farming smallholdings to petrochemical conglomerates providing feedstock for polyester. Work is underway to deliver more transparency, but global fashion supply chains are characterised by tens of thousands of SMEs often located in regions with weak regulatory enforcement. Efforts to standardise reporting, such as Higg Index or ZDHC, often fail to penetrate these layers consistently making it harder for brands to identify areas of impact to target.

2 **Lack of data to fill carbon accounting gaps** – Today's carbon accounting guidelines hold brands accountable for their share of GHG emissions from their scope 3 suppliers. Where real measurable data is not available, scope 3 reporting gaps are estimated from the brand share of the output from production units (usually factories). If data is not available from specific production units, GHG emissions are estimated based on industry averages connected to what is produced. This means that, unless a brand can track and identify the specific impact of their decarbonisation investments with a specific supplier, they cannot claim this as an impact in their scope 3 reporting. Even where an entire process has been decarbonised by a single investment, value will only be measured based on the brand's business share with the supplier.

3 **Complex reporting metrics** – The carbon reporting landscape and guidelines are also fragmented. There are dedicated carbon disclosure frameworks as well as those that are part of a wider ESG reporting framework. Some are voluntary, others are defined by policymakers - with different guidelines in different geographies. Some are private corporate frameworks, others come from governments, investor institutions, NGOs or charities. Some are interdependent; some standalone. Some have become obsolete; others are still emerging. Sustainability leaders need to navigate a long list of acronyms such as the GHG Protocol, ISO14064, CDP, SBTi, ESRS, CSRD, TCFD, ISSB, and SECR, which only adds to the complexity.

4 **The 'free rider' conundrum** – Where brands share suppliers, carbon accounting rules shaped by the GHG Protocol allocate emissions reductions proportionally across all customers. This means that while one fashion company may proactively seek to decarbonise their supply chain, the resulting emissions savings are proportionally distributed across all customers of that supplier, based on purchasing share and potentially giving competitors a free ride. Without mechanisms for balancing capital outlay and environmental return - exclusive crediting, emissions attribute trading, or pooled funding with equitable benefit sharing - the rational strategy may be not to invest

5 **Diverse energy infrastructures and regulation** – Energy is a crucial factor in reducing fashion emissions which are heavily reliant on power-intensive processes such as spinning, dyeing, finishing and logistics.

FIG.2 : COMPARING BRAND FINANCING IMPACT: SHARED SUPPLIER VS BRAND-EXCLUSIVE SUPPLIER

01.	SUPPLIER INVESTMENT	6 MUSD		Supplier plans to invest for energy efficiency and to replace fossil fuels with renewable energy
02.	FASHION BRAND LOAN	6 MUSD		Fashion Brand offer Supplier a 5-year loan
03.	FASHION BRAND FINANCING COST	2 MUSD		Fashion Brand Financing Cost = Cost of Capital - Interest income
04.	EXPECTED IMPACT, tCO_2E	10 000		Expected reduction of tCO_2e per year
		EXAMPLE 1	EXAMPLE 2	
05.	BUSINESS SHARE	20%	100%	The Brand business share with the supplier showing how much of the expected impact it can account for (GHG protocol). If a brand is 20% of the supplier's business, it can only account for 20% of the impact created through the loan. If the supplier can account for 100% of what it finances, it can account for the full impact of the investment.
06.	IMPACT CLAIMED BY BRAND, PER YEAR	2000	10000	
07.	COST PER TCO_2E, 10 YEARS	100	20	If the business share is low and only 20% can be accounted for, the cost for the brand will be 5x higher, 100 USD / tCO_2e, than if it can account for 100%. Generally, a brand financing supplier decarbonisation investments independently in a fragmented supply chain where production facilities are shared with other brands is inefficient and calls for industry solutions.

FINANCING

IMPACT

ILLUSTRATIVE MODEL ONLY - SOURCE: H&M INTERNAL METHODOLOGY

The cost inefficiency of brand-by-brand financing in shared supply chains underscores the need for industry-level decarbonisation solutions

In many Western markets, where fashion companies have HQs and retail operations, green energy infrastructure is a policy-making priority. While federal level rules in the United States are less stringent than Europe's CSRD and Carbon Border Adjustment Mechanism (CBAM), there remain state-level interventions to navigate, as well as potential future Border Carbon Adjustment legislation.

Conversely, key manufacturing hubs for fashion in Asia (notably Bangladesh, Vietnam, and India) often operate under less aggressive emissions targets and lack uniform enforcement.

Even fashion brands committed to decarbonisation may struggle to access clean energy in these key garment-producing regions. Suppliers lack consistent access to renewable energy or grid stability. Subsidised fossil fuels still dominate industrial power generation, undermining the business case for greener alternatives. Modernised energy grids are largely absent and limited support for Independent Power Producers and off-grid solutions restrict the scale-up of renewable energy production.

As a result, some suppliers turn to interim options such as biomass, but the feasibility and sustainability of these solutions vary widely by location - and should be viewed as transitional at best, not a long-term pathway. Ultimately, the industry needs to move towards full electrification powered by clean grids.

Addressing these challenges requires more than individual brand action. Supportive policymaking, global standards, and coordinated multilateral investment in regional energy infrastructure are essential to make clean energy accessible, affordable, and scalable across garment clusters.

Hurdle 3

A lack of relevant financing tools

The difficulties of attracting investment

The progress of sustainable finance vehicles over the last two decades should not be underestimated. Since the first "Climate Awareness Bond" was issued by the European Investment Bank in 2007 (valued at just €600 million), sustainable finance has been on an exponential growth track. Today green bonds are the largest vehicle for sustainable finance, accounting for $2.9 trillion of a $7.9 trillion global “green economy” with new issuances seeing double digit growth. Yet money invested in scope 3 decarbonisation is a tiny portion of this booming area.

Green bonds and loans often secure capital for brands or public entities funding large-scale, high-status flagship infrastructure but in the fashion sector, change is often needed at a more granular level.

In the small and mid-sized factories that make up the supply chain, access to traditional debt financing is hard, due to high interest rates and/or low credit-worthiness.

Given the prevailing commercial structures and short-term contracts, long-term investments in decarbonisation technologies such as waterless dyeing, biomass boilers, or solar power are financially unviable without external support, but they are deemed too risky or too small to attract the investment they need.

Lower-profile finance vehicles such as sustainability-linked loans (SLLs) are more suitable but, with the lack of standardised carbon accounting frameworks, it can be harder to separate out specific carbon reduction milestones from other ESG metrics.

A challenging stakeholder ecosystem

While Development Finance Institutions (DFIs), NGOs, and governments are generally willing - and in many cases eager - to provide support, their ability to do so is constrained by the structure of the supply chain.

The landscape becomes further complicated when different investor groups - corporate, financial, governmental and philanthropic - operate with overlapping but uncoordinated mandates.

Without shared data systems, harmonised reporting, or aligned risk-sharing mechanisms, co-investment becomes difficult. Short-term priorities often crowd out longer term commitments, trust remains low, and systemic transformation stalls despite a collective desire to move forward.

The complexity of different finance vehicles

Blended finance models offer a way for public or philanthropic partners to de-risk investments and in theory offer a perfect solution for decarbonising textile supply chains. However, due to the supply chain structure, the size and perceived value of investments and the lack of measurement infrastructure, today's models are not suitable in practice.

Additional complexity comes from the varied reporting and governance structures which legally bind different types of green investments. For large infrastructure investments, such as a national electrification programme, this complexity is an accepted prerequisite. However, for smaller investments among SME suppliers, it adds administrative and cost constraints, as well as requiring a level of financial literacy and organisational capacity that is in much shorter supply.

Solutions that do exist include aggregated supplier transition funds, and credit enhancement tools backed by multilateral banks or development finance institutions. But despite appetite from investors, regulators, and consumers, progress will be slow until vehicles reach sufficient scale to create investment momentum.

"The finance function must evolve, with a CFO who is involved in transformation projects. There is a need to align the euro and sustainability in order to endure over time."

Laurence Barrere, Director of Sustainable Finance, Kering

HSBC: Financing change can present conflicting priorities for actors across the value chain

Key challenges faced by suppliers, financial institutions and brands themselves in their efforts to decarbonise materialise around who bears the cost, the timeline for payback and the risk appetite of investors. For banks this creates a range of hurdles to consider which can be summed up in six key areas:

1. **The tenure mismatch –** Decarbonisation projects - such as solar PV, heat pumps, energy efficiency upgrades and waste heat recovery units - have an average payback period of 3-7 years, while traditional trade financing is typically short-term i.e. less than 1 year in most cases.

2. **Collateral and risk appetite** – Many tier 2 and tier 3 suppliers (typically mills or dye houses) are highly leveraged and the tools they need can lose their value rapidly. Financial institutions often struggle to lend against green equipment[1] that may have low resale value if the supplier is forced to default on their debt.

3. **Visibility of impact** – Fragmented, multi-tier supply chains make it difficult for banks to verify that funds are reaching the most carbon-intensive areas.

4. **The split incentive** – Suppliers fear that if they invest in green or sustainable technology for one brand, that brand, or others, might move to a cheaper competitor in the future, saddling the supplier with any resulting debt. Brands could link supplier commitments with long-term offtake agreements to help provide continuity in the procurement of goods and services.

5. **Regulatory complexity** – In some emerging markets and highly regulated jurisdictions, import or export of [1]green equipment may require regulatory approvals with complex documentation that creates a further administrative burden for all parties, including investors.

6. **Green taxonomy divergence** – Assets that demonstrate a positive impact – and whose owners have a credible path to net zero – may have their underlying financing classified as green or sustainable. However, in many cases carbon abatement solutions, such as energy efficient equipment, still rely on energy derived from fossil fuels. As a result, even if an asset improves environmental impact, the underlying financing may not qualify as green.

[1] Green equipment refers to tools, machinery or technology designed to minimise environmental impact. This can include equipment that reduces emissions and pollutants, uses less energy and water, is made from sustainable or recycled materials etc.

How to make a difference

Long-term tangibility as impact driver for corporate value

Linking impact to financial value is essential for building robust business cases for decarbonisation. Yet, with significant uncertainty of the future monetary value assigned to each metric tonne of CO_2e reduced (or other environmental attribute), financing scope 3 initiatives remains challenging.

All CFOs have a fiduciary duty to act in the best interest of owners and stakeholders. Owners need assurances that the value of the company is secured for the future. To ensure this, business models and operating models must be structured to optimise for growth and returns, while managing the inherent risks to value creation. In practice, this often suggests that a perceived lack or long-term uncertainty of financial returns represents a hurdle for decarbonisation investments, which are often viewed as aspirational rather than tangible.

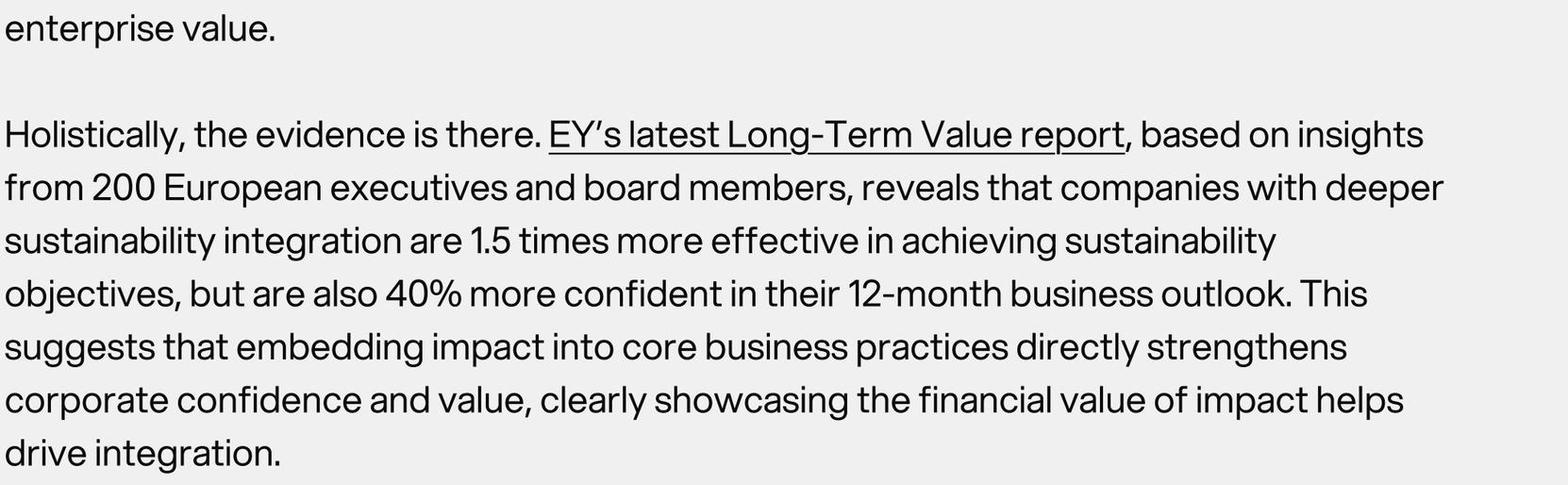
However, this is not a novel financial issue when considered through the lens of value creation. Investments with uncertain returns obviously exist in abundance. Take the example of R&D allocation, where companies are measured on the proportionality of R&D investments to revenue. These are typically based on a clear hypothesis of likely future returns (ROIC), while associated with sometimes extreme uncertainty and considered as “future bets” associated with extensive capital allocation that may or may not yield fruitful returns.

From this perspective, decarbonisation investments should be seen not as a separate concept, but as a normal lever for value creation. Leaning on the same principles, companies should argue that decarbonisation investments are intrinsically linked to enterprise value.

Holistically, the evidence is there. EY’s latest Long-Term Value report, based on insights from 200 European executives and board members, reveals that companies with deeper sustainability integration are 1.5 times more effective in achieving sustainability objectives, but are also 40% more confident in their 12-month business outlook. This suggests that embedding impact into core business practices directly strengthens corporate confidence and value, clearly showcasing the financial value of impact helps drive integration.

From the fiduciary perspective, any financial activity needs to be judged by the value it creates. The usual way to assess this is through a traditional DCF approach to value creation, resting on the assumption that the value of a company is the function of its cash flows discounted by the cost of capital.

FIG.3 : ILLUSTRATION OF TRADITIONAL APPROACH TO VALUE CREATION



Firm value, which equals the forecasted free cash flow to the firm in the next period divided by the weighted average cost of capital minus the growth rate

There is a persistent misconception that ESG investments require new valuation methodologies or analytical frameworks, typically derived from a desire to demonstrate causality between sustainability measures and observed market premiums. This may lead to an unnecessary complex discussion.

While business case drivers may be modelled on distinct causalities (comparable to any rationalisation of an R&D investment), they are inherently just drivers in a DCF approach, where ESG impacts, whether “upside” or “downside”, influence value through cash flows and the cost of capital.

Any ESG investments, including decarbonisation, circularity, supply chain redesign, and broader sustainability transformations, should therefore be treated the same way as traditional long-term investments that shape drivers of growth and return on invested capital.

There is, however, a distinct challenge. ESG initiatives are perceived as riskier and more uncertain than traditional investments. This perception stems from their interaction with external systems, long-horizon payoffs, multifunctional dependencies, and evolving regulatory and market environments, rather than from any difference in how they create financial value. Yet, the accelerating nature of climate change is bringing its impact closer on the forecast horizon.

Tackling the risk of accelerating climate change

Preparing for climate change means building a company not only able to cope with its consequences, but a company able to adapt, grow and maintain healthy returns on invested capital. A dependence on fibres, manufacturing processes or infrastructure exposed to climate change can be directly linked to business resilience. In these cases, investments in decarbonisation can be seen as not only a risk mitigation activity, but an investment in strengthening operational resilience and securing future business value.

This is backed up by the World Economic Forum, which in 2024 estimated that businesses that fail to adapt to physical climate risk could lose up to 7% of earnings already by 2035. Meanwhile, companies investing in adaption and resilience could generate returns between $2 to $19 for each dollar invested.

Climate risk assessments, which are already embedded into the governance of financial services, can be applied to identify and quantify the business risks of climate change. These risks can be physical or transitional, including regulatory and reputational risk. Mitigating these risks avoids future costs and generates tangible value.

The challenge to this approach lies in the fact that systemic climate risk will remain if it is not systemically addressed. The actions of one company alone will not be possible to reduce the risk totally. To assess the value a single company can generate, risk needs to be viewed through two dimensions:

- **Physical risk:** Systemic impacts (storms, droughts, heatwaves). Emissions reduction contributes to lowering global risk but cannot be eliminated.
- **Transition risk:** Policy, technology, and market shifts. Company-specific and mitigated through decarbonisation, reducing regulatory and reputational risks through transition to net zero.

As climate change accelerates, the gap between mitigation investments and adaptation costs is also shrinking, meaning that the cost of doing nothing is shifting from long-term impact towards shorter- and medium-term priorities. The steady increase in billion-dollar climate-related weather events means that, as retailers seek to make long-term business cases for decarbonisation investments, the exposure to the risk of collective inaction grows almost daily exacerbating the total risk exposure.

In addition to this, investments to mitigate risk help to protect against future cost increases in energy and raw materials as well as enabling innovation to cost effectively scale alternative sources such as recycled materials.

The two lenses of scope 3 decarbonisation value creation

To counter the risk described above (essentially countering the effects of a "potential cost of doing nothing approach") and provide a resilient foundation for growth and ROIC, companies should consider investments across two dimensions: value protection and value creation

Value protection: Value should not be considered only through improved financial returns (i.e., increased ROIC), but the protection it provides against a decline in growth, reduced ROIC and increased cost of capital. Working in tandem with the Task Force on Climate-related Financial Disclosures (TCFD) on the operational risks of climate change can enable companies to set value to these business risks. This can help address a fundamental challenge in planning for different climate scenarios which often fail to accommodate the full financial effects they present.

- Mitigating regulatory and reputational risk (e.g., preventing new regulatory penalties or fees related to emissions or waste)
- Avoiding future scarcity and price increases for virgin material
- Offsetting rising energy costs
- Maintaining quality and operational efficiency in climate-disrupted markets

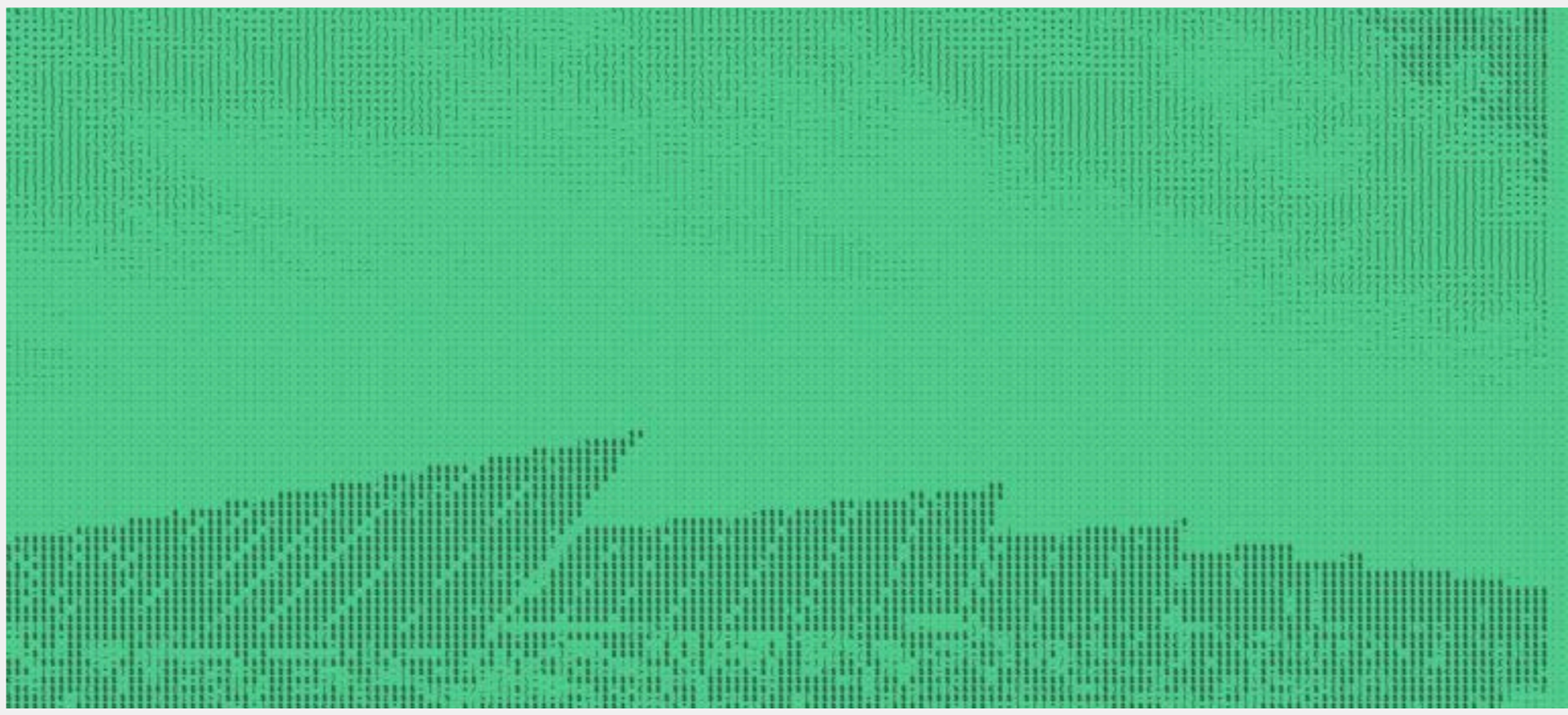
When discussing benefits of decarbonisation activities, delivering on sustainability targets has historically been seen as a top priority, but the reality is that these activities can be recast as building resilience and risk management capabilities. Rather than limiting the focus to climate change, business cases should be broadened to include a full set of value protection measures.

"Sustainability should not be treated as a discrete series of investments. Impact comes from the strategic application of levers that protect and create value over the long-term"

Jan Henry Fosse, Partner, Strategy, EY-Parthenon, Ernst & Young AS

Value creation

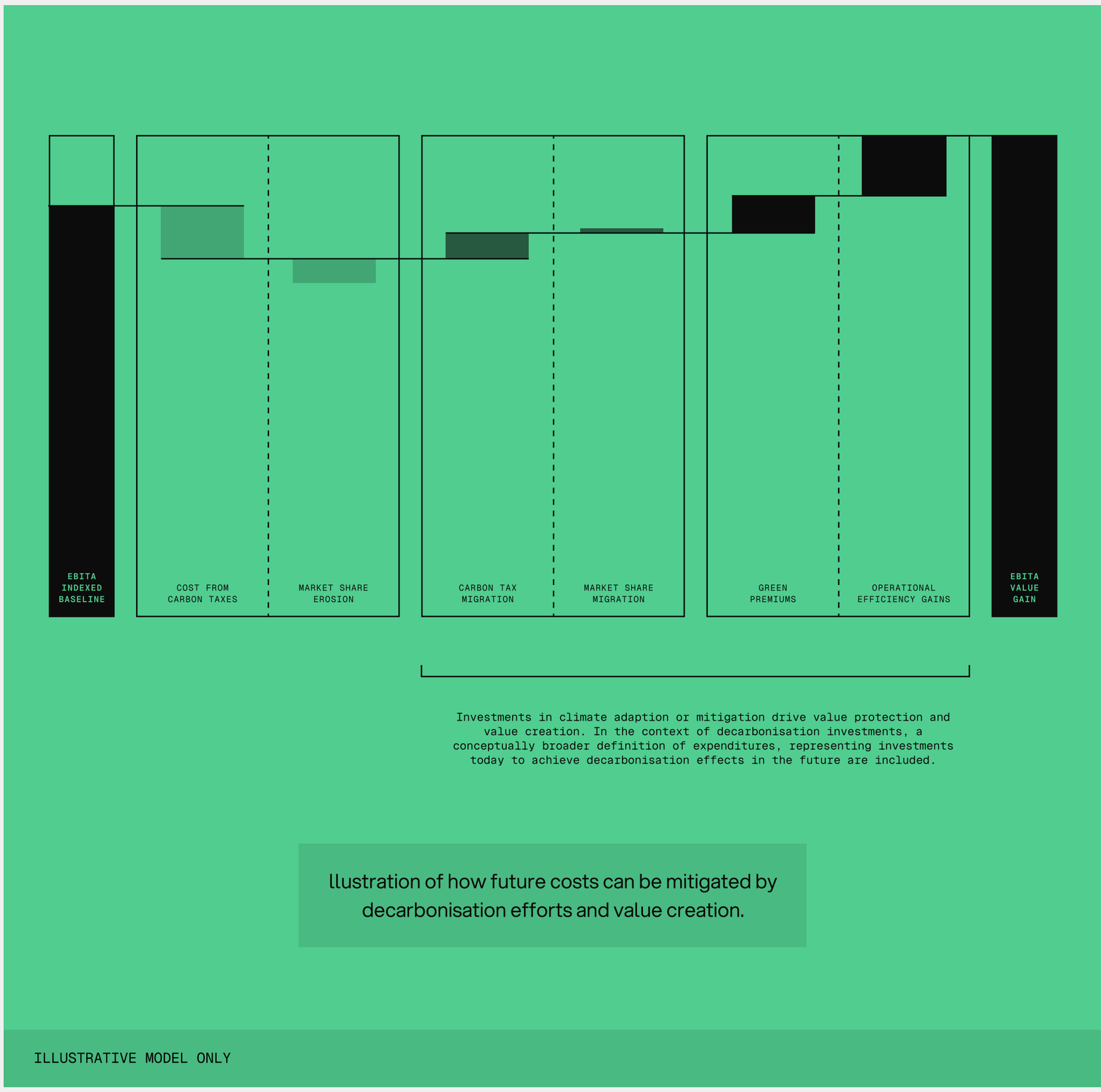
Value creation measures are those investments that seek to increase growth or increase returns on invested capital.



- **Supply chain efficiencies**
  Suppliers who benefit from collaborative decarbonisation efforts such as joint investment in renewable energy or shared efficiency may bring mutual cost saving benefits if orchestrated well.
- **Positioning for incentives**
  Regulatory credibility strengthens a fashion retailer's ability to lobby on incentives, enforcement, or fashion-specific pathways. Proactivity may open doors to new incentives or partnerships in policymaker-led pilot programmes.
- **Talent engagement and productivity**
  Talent, especially among younger generations, are more likely to favour visibly communicated climate action.
- **Brand equity**
  Product labelling, storytelling, and high-profile partnerships can strengthen brand equity and influence perceptions of value. Brands should exercise prudence over claims to avoid "greenwashing" accusations and manage reputational risk.

This dichotomy may be illustrated through a traditional EBITDA bridge, where future actual cost (from, e.g., carbon taxes) and associated potential market share erosion (e.g., following attempts to pass on cost increases to customers or reputational damage) is mitigated by decarbonisation efforts and competitive moves to protect market share. Additional value creation levers may be explored (requiring further CAPEX) to improve EBITDA beyond the starting point. The cost of “doing nothing” is the negative impact to EBITDA, while the value protection and creation levers less the CAPEX required to achieve these effects may be seen as the value created.

FIG.4 : EBITDA VIEW ILLUSTRATION



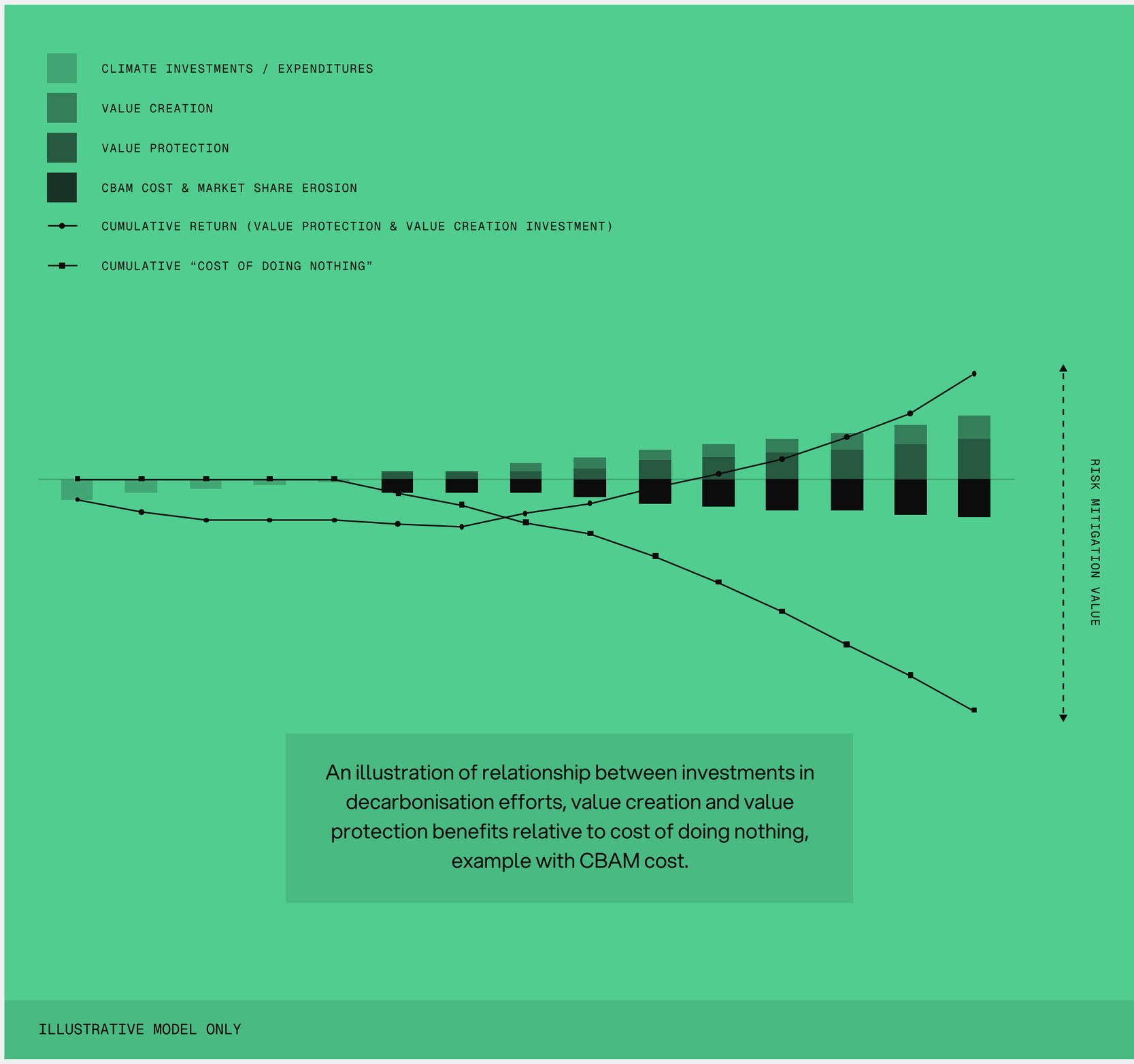
llustration of how future costs can be mitigated by decarbonisation efforts and value creation.

ILLUSTRATIVE MODEL ONLY

The gap between these effects becomes a metric to measure the long-term value that decarbonisation investment achieves. By comparing risk-adjusted cash flows between a net-zero scenario and a scenario based on taking no action, the company arrives at a “risk mitigation value”.

This logic becomes even clearer over the time horizon, where the cumulative return of value protection (e.g., net-zero investments) and “cumulative cost of doing nothing ” illustrates a delta that represents a financial value that may also be coined as the implied long-term “resilience value”.

FIG.5 : CASH FLOW ILLUSTRATION



An illustration of relationship between investments in decarbonisation efforts, value creation and value protection benefits relative to cost of doing nothing, example with CBAM cost.

ILLUSTRATIVE MODEL ONLY

Investments to mitigate risk also help avoid future cost increases in energy and raw materials while investing in value creation measures increases cost efficiency and scales alternative raw materials sources such as recycled materials.

Fashion brands may also benefit from capital market tailwinds. Institutional investors, particularly those managing long-term, ESG-aligned funds, will equate transparent and credible decarbonisation initiatives with long-term viability. Those brands that proactively take and report scope 3 initiatives are increasingly seen as lower-risk, future-ready investments which can improve access to capital and reduce investor scrutiny.

Building a structured approach to long-term value

While value creation and value protection levers can be relatively straightforward for a business to pinpoint, companies will need to accommodate a growing number of additional, more intangible elements. These can further drive the imperative but often lack clear, measurable accountability.

Thinking is changing at a C-suite level and research from EY points to CFOs increasingly shifting their role away being a "financial scorekeeper" towards being a “value architect”, embedding investments decisions into wider long-term value.

Bringing together sustainability and business operational goals into a single sustainable business strategy connects green goals, risk mitigation and business resilience together. Linking this to the financial value of impact reporting provides a clear way to measure progress.

To achieve this, the CSO and CFO need to work hand-in-hand with other C-suite members to fully integrate sustainability into operational and strategic decision-making.

In H&M Group’s experience, long-term value needs to be combined with working practices and KPIs that can be measured in the short-term. This allows for an ongoing evaluation of the effectiveness of impact activities and is crucial for steering improvements. Developing a way of planning, evaluating, enabling and following up on decarbonisation activities creates a deeper understanding of how to connect a business with sustainability.

Bridging the gap
H&M Group's Green Investment function

H&M Group's internal Green Investment function was developed to address the gap between business priorities and sustainability targets, providing accountability and balance. The function has introduced a sustainable investment framework with separate funds allowed to work long-term, established new ways of working and developed specific KPIs tailored to sustainability goals as well as innovative sustainable finance models. The function was formed around three main elements:

- **Designated responsibility**
  to develop a sustainable investment strategy that can be prioritised alongside other investment activities.
- **A separate sustainable investment budget**
  focused on long-term goals to bridge the gap between business-driven investments and impact investment, linked to identified KPIs and cost effectiveness to ensure progress.
- **Structured methodologies and tools**
  for impact investments that can enable efficiency, measurement and financial viability for activities.

The sustainable investment framework connects sustainability with business strategy by adapting the language to reflect the needs of both.

While it is understood that reporting progress on impact investments alone will not improve the bottom line, it drives organisational alignment, improves risk management, and reduces the risk of greenwashing accusations. It also creates a feedback loop to support better business choices and build stakeholder trust. Fundamentally, the adaption of a sustainable investment framework is prerequisite for the integration of sustainability across the business.

Underpinning this approach is the development of relevant KPIs where sustainable investments and financial results work side by side.

Measures like cost-impact efficiency and the ability to compare different activities against goals help steer decisions towards optimal outcomes. A starting point is setting a measurement impact unit, e.g., a reduced cost per tonne of CO_2e is relatively easy to benchmark against external values.

Linking financial activities to the cost of impact in CO_2 reduction and setting these impacts against broader decarbonisation targets can be cascaded to different impact investments to create a consistent scorecard. As regulation intensifies and potential carbon measurement taxes such as the Carbon Border Adjustment Mechanism (CBAM) become more established, this process will not only optimise business decisions but will become an imperative to align with policymaking.

Case Study:
What does decarbonisation cost?
Building the business case for decarbonisation at H&M Group

When H&M Group began assessing the decarbonisation roadmap, it quickly became clear that there is no silver bullet. Instead, reaching net zero requires multiple activities across the entire value chain, many of which have long payback periods. This highlighted the need for dedicated investment structures and funds that are allowed to work long-term, where success is measured not only with traditional financial KPIs.

To fill this gap, H&M Group created an internal Green Investment function, addressing the need with separate funding pools, tailored ROI expectations and KPIs aligned with sustainability outcomes - effectively forming a sustainable investment framework which includes the process for defining the budget need for decarbonisation purposes.

Estimating the cost of decarbonisation

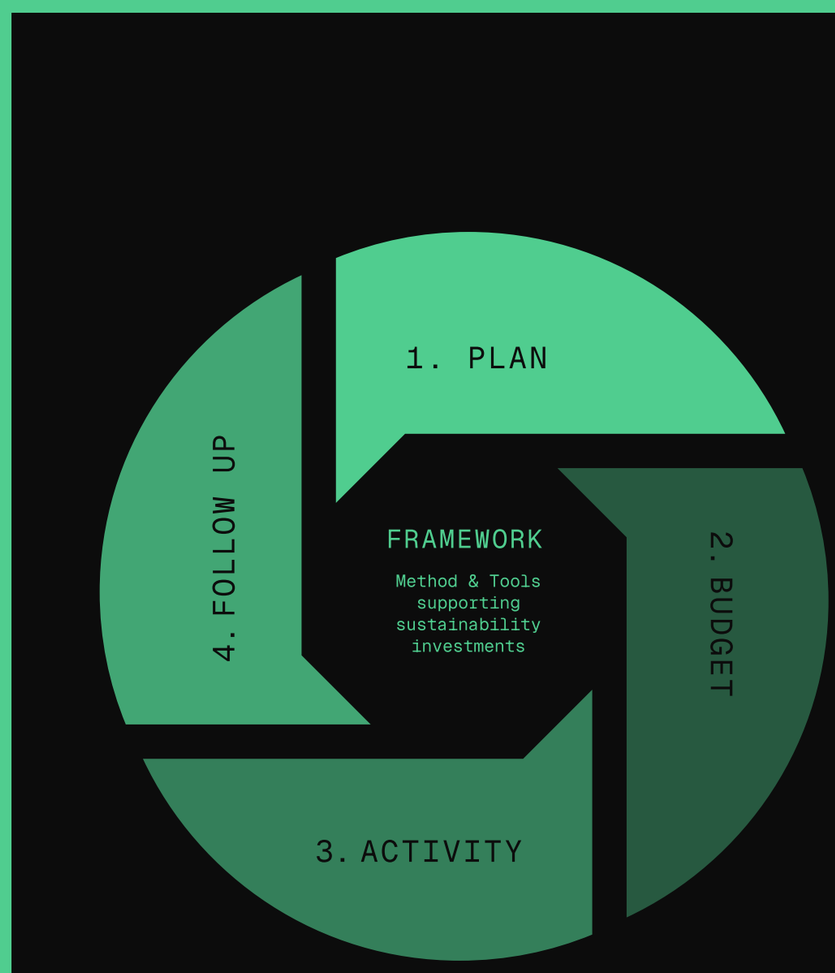
As a first step, H&M Group developed an abatement curve to map:

- Key emission reduction levers
- Potential emissions reductions per lever
- Approximate cost per tCO_2e

The analysis estimated an average cost of USD 70 per tCO_2e, closely aligning with the IMF's 2019 estimate of USD 75 per tCO_2e needed to remain within the goal of the Paris Agreement. This represents the systemwide transition cost, not H&M Group's individual financing cost. System costs naturally vary across sectors, geographies and organisations.

From this, H&M Group built a strategic roadmap by calculating the yearly reduction required to hit its 2030 targets. The roadmap was translated into clear levers and activities contributing to the annual tCO_2e reductions and now serves as a reference point for budget planning and business case evaluation.

FIG.6 : SETTING INVESTMENTS IN MOTION WITH GOOD CONTROL DECARBONISATION BUDGET PROCESS



1. PLAN

- Develop a decarbonisation roadmap
- Define an indicative net cost per tCO_2e reduced
- Create a top-down financial plan reflecting net cost + mitigation value and long-term business resilience

2. BUDGET

- Bottom-up assessment of decarbonisation activities (net cost and impact)
- Evaluate against top-down financial plan and available resources
- Set the budget*

* Consider a 2-year budget frame for Scope 3 decarbonisation activities since implementation time depends on a number of unknowns and involving a 3rd party

3. ACTIVITY

- Decarbonisation activity implementation
- Secure impact measurement, financial accounting and follow up process

4. FOLLOW UP

- Measure financial outcome and impact + cost-efficiency
- Aggregate data and assess net cost per tCO_2e, long-term value, especially risk avoidance, is being delivered
- Feed relevant actual financial and impact data into Plan

H&M Group evaluates decarbonisation investments using:

- Cost per tonne reduced
- Contribution to annual reduction targets
- Carbon intensity unit measures to compare project efficiency

Climate risk assessments further strengthen these cases by identifying physical, regulatory, and market risks. Mitigation activities help avoid future increases in energy and raw material costs and create opportunities for innovation, such as scaling recycled materials.

Linking financial value to the impact is crucial. Building the business case evaluation model on cost-per-tonne and contribution-as-share-of target, paved the way for the introduction of unit measurements for carbon intensity, enabling shorter term performance tracking and improved comparability across projects.

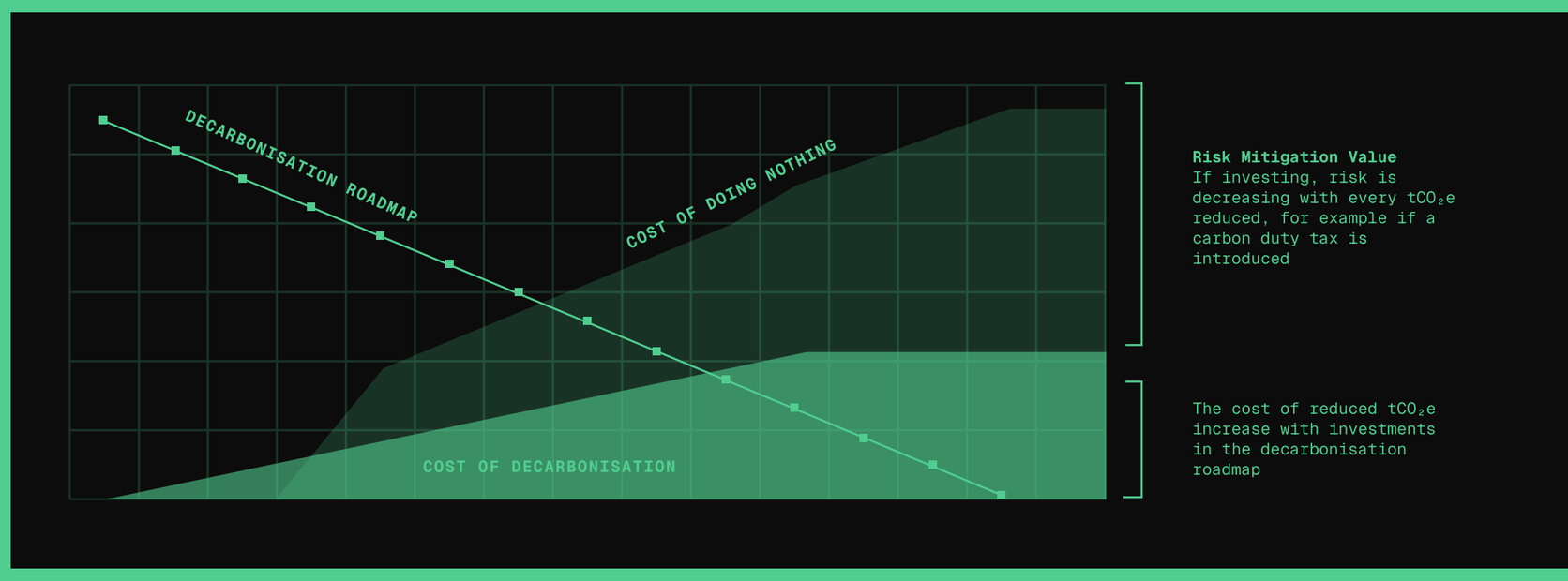
Sustainability investments are a key strategic focus to ensure future resilience and long-term value creation. Therefore, the decarbonisation investment strategy should include risk evaluations and alternative cost analyses that assess the financial implications of not acting. Using an alternative cost analysis, it is possible to identify the economic impact of transformational investments. This enables informed decision making by assessing the long-term risks and benefits of climate action.

Linking financial value to impact (e.g., cost per tCO_2e) allows the active steering of investment decisions towards the interventions with the highest cost efficiency and the greatest contribution to long-term value creation and risk avoidance. This is the approach that H&M Group has implemented over time

Finally, by aggregating impact results year-by-year, it is possible to assess progress towards long-term value goals. This supports systematic short- and mid-term follow up and ensures that activities remain aligned with the company's strategic objectives.

Business case for green investments H&M Group's conceptual approach

FIG.7 : ILLUSTRATING THE RISK MITIGATION VALUE



Inaction can increase long-term financial risks

"To succeed in our transition, we are reframing sustainability in the language of business. Effective integration means focusing on value creation, risk management, and operational efficiency. We need business cases that bridge short- and long-term returns, with an ROI that accounts for the cost of doing nothing.."

Ulrika Leverenz, Head of Green Investment, H&M Group

Case Study:
The Green Fashion Initiative (GFI) at H&M Group

The journey towards decarbonisation in the fashion industry is complex and requires both innovation and collaboration. H&M Group recognises its responsibility extends beyond setting ambitious climate targets. Its financial support has contributed to progress in documented supplier partnerships and can create a ripple effect that inspires a broaden adoption across the industry.

Closing the financing gap for long-term decarbonisation

The Green Fashion Initiative (GFI) was created to help suppliers overcome the financial and technical barriers that often prevent decarbonisation projects from moving forward.

Many upgrades with substantial climate impact have payback periods of ten to fifteen years, making them difficult for suppliers to finance independently, particularly in competitive, low margin manufacturing environments.

Through GFI, H&M Group provides suppliers with free technical expertise, as well as favourable finance by working with a wide network of banking partners. By reducing upfront costs and sharing risk, GFI has contributed to carbon reductions for selected supplier projects.

The initiative finances a wide range of solutions, including energy efficiency upgrades, electrification of thermal processes, heat pumps and thermal storage, onsite and offsite renewable energy and the replacement of fossil fuel equipment with cleaner alternatives.

Proven results across production units

A defining strength of GFI is its demonstrated impact. H&M Group uses real factory-level data to calculate the carbon intensity of the energy mix used by each production unit. Projects financed by GFI, show higher carbon-intensity reductions than the comparator set over the period studied.

Part of the programme's success lies in the autonomy given to suppliers. They identify their own decarbonisation priorities, while H&M Group evaluates the cost per expected tonne of CO_2e reduced based on the investment amount, lending rate, and its share of the supplier's production. This ensures that decisions balance efficiency, scale of impact, and the operational resources required to execute each investment.

FIG.8 : AN ILLUSTRATIVE MODEL, COMPARING GREEN FASHION INITIATIVE CASES

SUPPLIER	SUPPLIER INVESTMENT	LOAN	TOTAL IMPACT	BUSINESS SHARE W SUPPLIER	IMPACT CLAIMED BY BRAND	SUPPLIER INVESTMENT PER TCO_2E	FINANCIAL COST* PER TCO_2E
Name	Total Supplier Investment (MUSD)	Total Supplier Loan (MUSD)	tCO_2e reduced per year	Brand Business Share with Supplier (%)	Total Impact x Business Share (tCO_2e)	USD per tCO_2e assuming 10 year lifetime of investment	Financial Cost for the Brand - USD per tCO_2e assuming 10 year lifetime of investment
A	2.0	2.0	10 000	25%	2500	20	14
B	3.0	3.0	12 000	25%	3000	25	18
C	0.2	0.2	3000	10%	300	7	12

*Financial Cost for Brands is related to resources "locked" into guarantees or loans. A simple way of calculating the cost includes cost of capital - interest rate

Using the right performance metrics ensures that portfolio decisions weigh efficiency, achievable impact, and resources required to deliver it.

ILLUSTRATIVE MODEL ONLY - SOURCE: H&M INTERNAL METHODOLOGY

For example, Supplier A proposes a USD 2 million investment expected to reduce emissions by 10,000 tCO_2e annually. With a 25% business share, H&M Group would claim 2,500 tCO_2e of reductions, at an estimated cost of USD 14 per tCO_2e.

While Supplier C offers the lowest cost per tonne and Supplier B the greatest overall reduction, Supplier A represents the optimal balance of total impact, efficiency, and administrative feasibility.

A collective pathway to full electrification

Since its launch in 2022, GFI has financed 21 projects with a potential to reduce 148,000 tCO_2e, of which 67,000 tCO_2e are attributable to H&M Group. Beyond the numbers, the initiative creates momentum.

Despite strong results, GFI still covers only a small portion of the decarbonisation opportunities across production units. This highlights the scale of investment needed to fully electrify and decarbonise the fashion supply chain. H&M Group will continue to lead by example, but no single brand can carry the transition alone. Achieving industry-wide electrification will require collective financing models, coordinated strategies, and shared responsibility among brands, suppliers, and financial institutions.

When financial support is provided even to a relatively small supplier project, the immediate emissions reductions or financial returns captured in the business case often represent a fraction of the true value created through the ripple effect.

Learnings from the Green Fashion Initiative show that many of the most effective levers for decarbonisation fall outside traditional business case logic.

Small, early supplier investments often create ripple effects far beyond their immediate emissions reductions. They act as catalysts, shifting mindsets, building confidence and enabling suppliers to pursue further decarbonisation.

Over time, these effects unlock larger operational changes and deeper collaboration across the value chain. Traditional business cases, focussed on short-term payback, often miss these systemic benefits. Meaningful progress requires viewing climate investments not as isolated projects, but as enablers of long- term transformation.

FIG.9 : MODELLING THE RIPPLE EFFECT HOW EARLY BRAND INTERVENTIONS CAN BE CATALYSTS FOR LARGER INVESTMENTS IN THE TRANSITION

"Our collaboration with H&M Group's Energy Experts', especially around GFI financing and emissions-reduction work, has strengthened our climate transition plan. Their consistent support and long-term commitment have helped us implement meaningful carbon-reduction solutions."

M.S Zaman, Managing Director, Liberty Knitwear Limited

The complex role of regulation and taxes – By Alenka Turnsek, EY Global Sustainability Tax Policy Leader

Fashion supply chains are increasingly being shaped by fiscal and regulatory interventions on GHG emissions to minimise pollution impacts from materials and production processes.

The use of carbon pricing mechanisms

Throughout fabric processing, carbon pricing mechanisms such as carbon taxes or emissions trading schemes (ETS), are increasingly common to tackle scope 3 emissions. China has implemented a national ETS which does not yet cover the industry, but future scope expansions should be monitored; and an Environmental Protection Tax, charging factories for pollutants on a per-unit basis. India lacks a formal carbon tax, but uses the Perform, Achieve and Trade (PAT) scheme to set energy intensity benchmarks for major textile plants, effectively penalising inefficiency through a market for energy saving certificates.

Carbon pricing is also common in other countries around the world where textile processing may still occur. The European Union's Emissions Trading System (EU ETS) requires manufacturers, including textile mills, to purchase CO_2 permits to internalise the cost of carbon. The price of these permits increased to approximately €90 per tonne in 2025, imposing a significant fiscal burden on energy-intensive production. The EU's Carbon Border Adjustment Mechanism (CBAM) entered its definitive phase in January 2026. Announcements in December 2025 of proposed future EU CBAM downstream scope extension by 2030 which will need to be traced through their embedded emissions across value chains and production routes. Although chemicals and polymers were initially considered, they have been deferred to future expansion phases.

Numerous other countries are also introducing carbon pricing schemes that may impact the industry now or in the future. Their scope should be monitored closely to assess potential direct or indirect effects on the industry.

Given the industry's global supply chain, emerging transport-related carbon-pricing measures should be monitored and incorporated into decision-making. The Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) will require airlines to use carbon credits to offset all emissions from 2027. Similarly, the International Maritime Organization (IMO) is developing a global carbon levy for shipping, set at USD100 per tonne of CO_2-equivalent above defined thresholds. Road and rail freight are also subject to jurisdiction-specific fuel and energy taxes, including the upcoming European Union Emissions Trading System II (EU ETS2) from 2028.

Secondary processing phases that create finished textile products are also coming under scrutiny as regulations related to the circular economy take effect. These include controls on product design choices to promote recyclability, repairability and durability.

A complex landscape

One of the core challenges faced lies in regulatory fragmentation, with varying rules across jurisdictions leading to complex compliance environments and a risk of double taxation.

Navigating the complexities of this global tax landscape demands a multifaceted approach. By deploying digital tools for supply chain mapping, environmental data tracking, and regulatory reporting, fashion retailers are in a strong position to anticipate compliance and make well-informed decisions. Yet technological investment alone is not sufficient. Meaningful engagement in policy dialogue enables companies to influence new regulations and gain an early view on the changes ahead.

Financial strategy plays a significant role in this evolving environment. By capitalising on sustainability related funding which includes public funding, grants, tax credits and other tax exemptions and reliefs, businesses can alleviate the cost of the transition. The European Investment Bank's EUR 16 billion commitments to green finance and circular economy projects highlight just how transformative strategic funding can be.

Looking to the future, the acceleration of regulatory change will place greater demands on product lifecycles, resource-use and waste. This also presents opportunities for innovation, cost savings, and the development of new business models. Companies that act swiftly to embrace these trends will strengthen their market position and resilience as well as meet the needs of an intensifying regulatory landscape.

Taking a collaborative approach to overcoming fragmented supply chains

The Green Fashion Initiative has been successful for H&M Group but it has also taught two distinct lessons:

1 **No single brand can go it alone**
H&M Group cannot account for all GHG emission reductions in fashion supply chains through its own supplier investment activities, nor can its peers and competitors in fashion. Collaboration is needed.

2 **Collaboration requires alignment**
The standards, expectations and priorities that any fashion retailer sets will be far less likely to succeed if they are not aligned with similar standards, expectations and priorities across the industry.

Systemic problems need systemic solutions, and here the need to collaborate is the most obvious solution for scaling impact. Unfortunately, it also appears to be one of the most difficult to achieve.

Almost every hurdle to supply chain decarbonisation can be overcome by deeper collaboration between fashion brands and their ecosystem:

- Collective demands on - and commitments from - suppliers will drive better collective supplier actions to decarbonise.
- Pooled investments could enable greater scale, bringing down programme cost.
- Collective alignment on resource procurement could increase the affordability of alternative materials.
- Consolidated recycling approaches would also enable scale and lower prices for keeping raw materials in circulation longer.
- Common goals and standards among brands would enable clear and consistent progress to be measured.

The list of possible solutions is long, but through collaboration, companies can collectively align behind the right ones to enable the scale of investment needed for tangible impact.

The appetite to collaborate is being accelerated by the growing number - and increasing membership - of influential fashion alliances which have the power to mobilise fashion retailers into taking collective action on common, industry-wide problems

"The partnership with H&M has been a complete gamechanger for us. Beyond the financing, their long-term mindset and the H&M India Sustainability-team's hands-on support actually shifted our internal culture towards green supply chain journey. It's no longer just about the investment - it's a collaborative journey that has empowered us to lead our own climate transition"

Hemant Marwaha, Vice President ,Yes Fashions Pvt. Ltd.

Working with a wider ecosystem to set and meet common goals

Collaboration opportunities should not just be limited to suppliers and industry peers. In many cases an independent third party, often an NGO, is a necessary part of the equation to ensure pre-competitive standards and governance. The net can also be thrown wider, to include banks, technology providers, regulators, customers, communities, start-ups and external experts and advisors.

To make decarbonisation both efficient and viable at scale, collaboration should move beyond just financial commitments towards a collective imperative for solving challenges.

Fragmented supply chains mean that the data being applied often relies on generic Life Cycle Assessments (LCAs). LCAs can be critical in efficiently identifying and eliminating the most emitting components of a supply chain and if applied rigorously and consistently, they can unlock the most effective measures for companies to take in their decarbonisation efforts.

However, there is no common reporting system for emissions in fashion, and KPIs vary from brand to brand. This creates an administrative burden for suppliers looking to supply different metrics for different brands. Equally, generic LCA reporting systems make targeted benefits in emissions reduction or returns on investment harder to prove.

"Fashion retail sits at the heart of some of the world's most complex supply chains. Decarbonising them will be essential for business resilience and long-term competitiveness. This can only be achieved at scale through industrywide collaboration"

Malin Andrée, Global Retail Leader, Ernst & Young AB

To resolve these issues, brands can collectively work with convening organisations like the Apparel Impact Institute and Cascale to generate and measure common KPIs aligned across the sector. This will be vital to establish common standards that measure success and to ensure alignment in using shared technical, and technological, solutions at scale. There is always a temptation to deploy technologies in isolation, since testing is needed to prove a solution works. However, efficiency in decarbonisation programmes will only come with the scale that a common approach to solutions and technologies brings. Otherwise, decarbonisation projects can find themselves in "pilot purgatory", when a solution cannot be deployed widely enough to generate the impact it needs.

Trusted NGOs can be key to establishing common standards and alignment, and provide a galvanising force for the industry to rally round. Their position as independent organisations grants them the autonomy and credibility that corporates, with potential vested interests, cannot always provide. They are well placed to act as a go-between on pre-competitive and non-competing agreements across competitor fashion brands.

By partnering with brands, suppliers, policymakers, solution-providers and other third-party organisations, NGOs also have a role to play as a matchmaker for collaborative financial solutions. Competing brands may not invest in each other's programmes, but they are far more likely to invest in an NGO-managed collective programme.

Case study:
The Apparel Impact Institute - Collaborating to overcome supply chain fragmentation

In a fragmented global supply chain, the path to decarbonisation requires a neutral partner capable of aligning multiple, sometimes competing, interests. Nonprofit organisations such as the Apparel Impact Institute (Aii) act in this bridging role by providing a trusted, independent platform for collaboration among brands, suppliers, financial institutions, and solution providers. Aii's mandate is to accelerate and scale proven solutions to reduce carbon emissions across the apparel and textile industry. It does so not by advocating policy but by designing programmes, financing structures and measurement frameworks to convert ambition into project implementation.

Aii's strength lies in transforming fragmentation into alignment. By convening brands that share suppliers, Aii is establishing common standards for data reporting and carbon benchmarking. This enables suppliers to work towards a single, verified set of KPIs rather than responding to multiple brand-specific requirements. Aii also facilitates access to blended finance, bringing together philanthropic, corporate, and development finance partners to de-risk early investment and lower the cost per tonne of CO_2 reduced. In this way, Aii functions as an infrastructure partner for the industry, translating decarbonisation goals into actionable, finance-ready projects on the ground.

"As we have outlined in our Cost of Inaction report, proactive investment in supplier decarbonisation is significantly less costly than absorbing escalating carbon, energy, and raw material risks over time - with brands facing the risk of operating margin declines of up to 34% by 2030, rising to 67% by 2050 under inaction scenarios"

Kristina Elinder Liljas, Senior Director of Sustainable Finance and Engagement Apparel Impact Institute

Case Study:
Deployment Gap Grants: bridging the ROI barrier

In 2025, Aii introduced the Deployment Gap Grant (DGG) - a new financial mechanism developed through its Fashion Climate Fund to accelerate supplier decarbonisation across the global supply chain. Many proven carbon reduction solutions, such as thermal, heat electrification and solar-assisted drying, fail to move forward because suppliers require a ROI within roughly two years; a process that often takes four to six. To bridge this gap, Aii co-created the DGG with brand partners and suppliers through a 100-day design sprint in India.

The DGG functions as gap funding rather than a rebate: grants are calibrated project-by-project to reduce the effective payback period to within suppliers' investment thresholds. Brands contribute pooled capital to a shared mechanism managed by Aii, which distributes partial grants to qualified supplier projects that have clear emission reduction potential but limited access to affordable finance. This collaborative structure allows multiple brands to support shared suppliers efficiently while maintaining credible, measurable impact in scope 3 accounting.

Early experience with the DGG shows that this type of targeted gap funding can unlock high-impact projects that would otherwise stall, providing a strong foundation for more scalable structures. Because pilots are funded through brand contributions on a project-by-project basis, they are already demonstrating what works, where the returns are strongest, and how shared suppliers can be supported in practice.

The ambition is to build on this success by evolving from individual DGG interventions into a larger pooled facility that can provide payback-period support to a wider set of factories. In this model, brands would contribute to a shared decarbonisation pool as a long-term strategic investment, while still directing part of their funding to facilities in their own supply chains.

Philanthropic capital and multi-lateral development bank (MDB) finance could then be blended into the same pool to support additional high-impact facilities beyond any single brand's footprint, making sure the mechanism targets the biggest emissions while still letting brands see which projects their own funding supports. For MDBs and philanthropic funders, mechanisms like the DGG offer a practical way to advance their own climate targets and grow green investment portfolios by backing a model that has already been co-designed, trialled and vetted by leading brands, with clear governance and measurable decarbonisation

Through an initial USD 1 million pilot, two suppliers were selected to demonstrate the model:

SUPPLIER	INTERVENTION	EXPECTED TCO_2 REDUCTION ANNUALLY
SRG	Hot water heat pump + 75-100% renewable electricity	4015
TRIDENT LTD	Solar sludge dryers with automated climate control	1700

Exach project demonstrates multi-brand scope 3 benefits and shorter payback horizons, illustrating the contribution DGG can make.

Beyond the immediate emission reductions, the pilot has helped establish a blueprint for shared financing and common reporting, and for MDB capital to support a broader portfolio of facilities, with a focus on low-carbon processing retrofits and electrification projects.

The Deployment Gap Grant illustrates a broader point: industry-wide alignment is not only about governance; it is also what makes financing and real emissions reductions possible. When brands coordinate around shared data systems, common KPIs and trusted partners, suppliers gain the confidence to invest and financiers get the clarity they need to commit capital. This shared infrastructure, enabled by neutral organisations like Aii, provides the backbone for scaling decarbonisation across the sector.

Sharing a collective vision and commitment with suppliers

When it comes to risk management and supply chain resilience, fashion companies can no longer be considered as competitors. They share the same value chain, and any process changes or impacts on a production unit affect all buyers. If competitors consider themselves as collective stakeholders in their supply chain, then the question of investment to decarbonise becomes one of how to collectively achieve the change needed in the most efficient way. This commitment is important, not only for cost-effective financing, but also as a leveraging factor to drive supplier changes.

For a supplier, decarbonising can deliver potential value from an increased sales price or a commitment from customers to offtake volume agreements that guarantee future revenue or funding. Managing this is more difficult without collective action from buyers to set and agree consistent terms.

If multiple buyers agree to collectively support a process change with a supplier, then this expression of interest drives implied long-term commitments between them. This signal of intent encourages further action from suppliers and can cascade upstream to other suppliers, creating a virtuous circle of decarbonisation.

The supplier view
Rudong Knitit

Financial risk, a lack of long-term commitments and limited access to affordable capital are the biggest barriers to supplier decarbonisation. H&M Group's work with the Rudong Knitit project in China demonstrates how long-term brand commitment, combined with financial and technical support, can enable suppliers to adopt low-carbon new technologies that would otherwise be financially unfeasible.

Rudong Knitit, a tier-one supplier located in Mainland China, manufactures knitted accessories for H&M Group and other brands. Like many factories in the region, Rudong Knitit historically relied on coal-fired steam systems for thermal energy - a major source of GHG emissions and a common decarbonisation bottleneck.

Through H&M's Green Fashion Initiative (GFI), Rudong Knitit was supported to pilot a thermal heat storage solution which replaced fossil fuel-based steam generation with an electric alternative powered by renewable energy. Using off-peak grid electricity, the technology heats a molten salt chamber to store energy and deliver up to 15 hours of steam for production processes. This marks the first known use of such a system in a garment factory in China.

Since becoming operational in March 2024, Rudong Knitit has completely phased out coal-based steam and operates on a mix of renewable energy, sourced from a combination of rooftop solar generation and renewable energy certificates. The project is expected to reduce emissions by around 600 tonnes of CO_2e per year - a significant step towards decarbonising thermal energy use in textile manufacturing.

By helping shoulder the upfront investment, the initiative between H&M Group and Rudong Knitit illustrates how shared investment can be both technically and financially viable.

Creating scale in finance solutions

The size of the problem remains immense, and even all the fashion retailers acting together cannot decarbonise the entire supply chain, especially not in the time frame needed. More partners are required to support, manage and drive change, including policymakers, technology platforms and, importantly, financial investors.

As discussed, large infrastructure programmes seeking billions in funding make attractive investment opportunities with the potential for sizable returns. By contrast, the funding need of an individual textile decarbonisation project can be as low as EUR 1–3 million and require complex and costly administrative setup due to the fragmented supply chain.

To ensure that investment vehicles achieve the scale needed to make them attractive to investors and to deliver major change, financial tools and infrastructure need to recalibrate around bundles of multiple programmes. This would result in bringing down the relative administrative burden and increasing the potential value of the investment vehicle to deliver financing at scale.

Blended finance - The investor view – By Gillian Lofts, EY Global Sustainable Finance lead

Traditional blended finance structures have struggled to deliver the scale and speed required for meaningful supply chain decarbonisation, since they have largely focussed on incremental improvements. Efforts to date have sought to leverage the current financial systems, hoping to mobilise capital, but this approach is limited. Private finance sees the same barriers that fashion companies experience: fragmented structures, slow deal flow and risk frameworks that exclude the very markets where impact is most needed.

What is needed to accelerate these programmes is genuine innovation. Investment vehicles need to be structured to pull together diverse projects, capital sources, and stakeholders in fundamentally new ways. You cannot unlock the trillions needed for decarbonisation simply by tweaking the structures that already exist and were often designed for different outcomes.

What works is simplicity, alignment and risk mitigation. Vehicles that aggregate projects across jurisdictions, bundled into a single rated instrument with first-loss protection from MDBs or DFIs, for example, could unlock institutional capital at scale.

From an investor perspective this means:

- **Transparency and clarity**
  Make vehicles easy to understand, with transparent capital stacks (catalytic capital, insurance, finance and investment) and clear risk buffers including credible first-loss layers and robust overall governance.

- **Credible ratings**
  Instruments need to be rated by trusted rating agencies with transparent reporting frameworks so that investors have confidence in risk-adjusted returns.

- **Diversification**
  Aggregating projects across jurisdictions into a single vehicle in a targeted way addresses risk exposure. This protects against individual project failure and can attract institutional capital.

- **Standardisation**
  Digital platforms and standardised impact metrics can support the development of repeatable templates that reduce the administrative burden of creating new vehicles, while robust and consistent reporting frameworks reduce due diligence friction and the greenwashing risk that would otherwise slow the process down.

The appetite in financial markets is there. Green investment vehicles are often oversubscribed and both institutional and corporate investors have their own ESG goals to meet. Private finance is actively looking for vehicles that do not just improve the status quo but redefine it. This will only work if innovation and collaboration can be applied to blended finance models that can deliver trust, capital and impact at the scale required for real change.

Using expanded investment vehicles to deliver blended finance

Blended finance is a proven tool for mobilising private capital in emerging markets and high-risk contexts. It typically brings together a combination of capital with different risk appetites:

- Public capital from governments or development banks - to derisk a project through guarantees or concessional loans
- Private capital from brands, banks and institutional investors - to provide scale and speed
- Philanthropic capital from foundations or CSR programmes - to cover early-stage costs or technical assistance

This combination of capital sources could enable the funding of projects that are environmentally beneficial but perceived as too risky or costly for conventional investors.

In blended finance arrangements, the end investor (such as the manufacturer) usually seeks funds for a particular project, but in fashion supply chains, these projects can be too small to attract investment.

Like other green investment vehicles, today's blended finance models are optimised for large, centralised projects, not the fragmented, small-scale nature of textile supply chains. According to the UN Global Compact, blended finance is commonly applied to major infrastructure initiatives including renewable energy grids, water systems and climate-resilient developments.

Unlocking blended finance here requires aggregated investment platforms, risk-sharing mechanisms, and digital tools for transparency that enable co-investment in supplier-level decarbonisation.

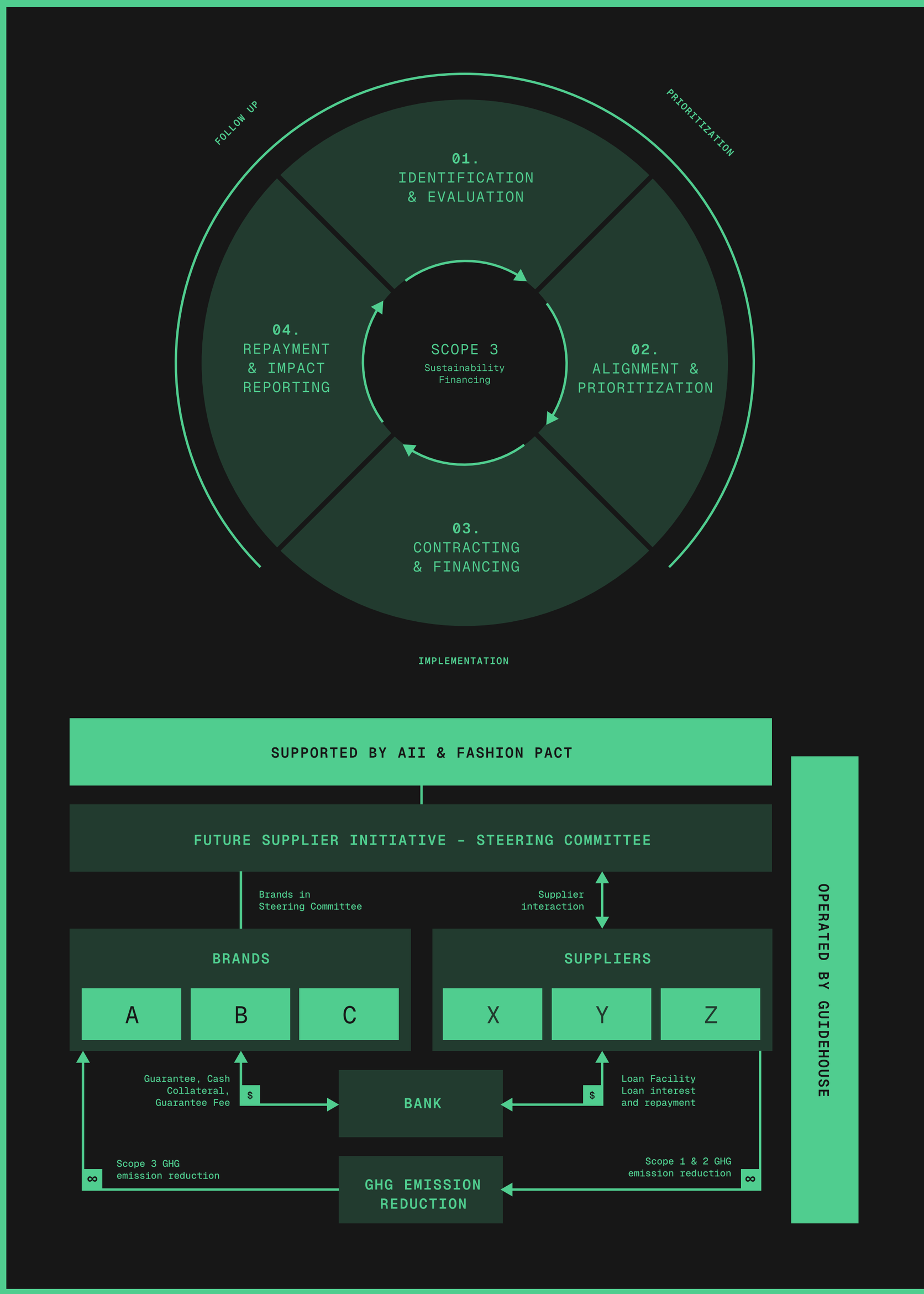
A simple solution to create scale comes from bundling multiple programmes into a single blended finance vehicle. Within this solution lies an evolving approach to blended finance. Unlike conventional models which are driven by financial returns, a portion of capital in this context can be driven by non-financial outcomes. Many investors, particularly corporates with ESG mandates, seek measurable decarbonisation impacts that can be credited towards their sustainability targets. Here the measurement of impact complements financial yield as a success factor.

Currently only a handful of global fashion initiatives pool demand from multiple projects to provide shared financial infrastructure for supplier decarbonisation, and these are modest in scale. The Aii's Fashion Climate Fund is one of the few sector-specific mechanisms addressing this gap, by deploying initial capital to unlock further private sector investment.

Brands, suppliers and third-party investors need to collaborate more actively to seek and bundle the right investment projects into suitable groupings for an identified investor pool (for example, emission reductions in targeted suppliers). To achieve this, an infrastructure provider, such as an NGO, is needed to co-ordinate investors and shape the right blended finance bundle.

Case Study: The Future Supplier Initiative (FSI)

FIG.10 : OVERVIEW OF THE FUTURE SUPPLIER INITIATIVE, PROCESS AND SETUP



Building on learnings from the Green Fashion Initiative, FSI was created to accelerate supply chain decarbonisation through collective finance and shared commitment. Developed with Guidehouse, FSI brings brands with overlapping suppliers into cohorts to offer technical advice and financial support. In return, participating brands see the benefits of reduced scope 3 emissions as suppliers commit to decarbonisation projects.

How it works

FSI plays the role of a coordinating partner by conducting or validating energy assessments and designing technical and financial proposals for emission-reduction measures in suppliers. Brands, suppliers, and the FSI then agree on a package financed through loans at competitive rates, facilitated by partner banks.

Loans are derisked by collateral or deposits provided by brands, or by development bank guarantees, to improve the terms for suppliers.

Emission reductions are measured and attributed to brands' scope 3 inventories using a credible FSI methodology aligned with current standards.

FIG.11 : ILLUSTRATION OF COLLABORATIVE FINANCING STRUCTURES VS INDIVIDUAL FINANCING STRUCTURES

	GUARANTEE COLLABORATIVE	CASH COLLATERAL COLLABORATIVE	DIRECT LOAN INDIVIDUAL
SUPPLIER LOAN, MUSD	6.0	6.0	6.0
BRAND - BUSINESS SHARE %	10%	10%	10%
BRAND - SHARE OF LOAN, %	50%	50%	100%
BRAND - BANK DEPOSIT, %	15%	N/A	N/A
BRAND - CASH OUT, MUSD	6 X 50% X 15% = 0.5	6 X 50% = 3.0	6.0
BRAND - FINANCIAL COST, MUSD	0.4	1.5	2.2
FINANCIAL COST DETAILS	Funding Cost Guarantee Fee	Funding Cost	Funding Cost - Loan Interest income
BRAND IMPACT, TCO_2E P.A	6708	6708	6708
BRAND - COST PER TCO_2E, USD	6	22	33

Supplier Capex: 6.0 MUSD

6708 tCO_2e per year reduced towards Scope 3

The cost to finance supplier appears lowest through the guarantee model, 6 USD per tCO_2e reduced during 10 years, while the comparison shows financing by an individual brand would be much less efficient.

Collaborative financing models can deliver lower cost per tCO_2e, indicating how industry solutions can outperform individual brand financing.

ILLUSTRATIVE MODEL ONLY - SOURCE: H&M INTERNAL METHODOLOGY

Governance and partners

FSI is supported by both the Fashion Pact and Aii who play a crucial role as infrastructure partners. The initiative is governed by an investment committee of participating brands which includes H&M Group, Bestseller, Gap Inc., Mango, Marks & Spencer, Ralph Lauren and Tchibo. The first cohort of the initiative is focussed on supporting suppliers in Bangladesh. By bringing collaborative investment to the table, the prognosis indicates that collaborative financing can lower the cost per tonne of CO_2 compared to individual financing initiatives. The prognosis show a greater degree of scale and efficiency to the process, enabling more integrated decarbonisation programmes.

But it also takes time and is not without bottlenecks. Co-ordinating a group of companies and banks means there is no single universal funding solution that FSI can deliver.

Banks can only design funding mechanisms for projects when parameters such as ESG goals, capital flows, collateral commitments and risk profiles are aligned and understood between all parties. To achieve this, early engagement and an open sharing of desired outcomes is critical, both between brands and with suppliers, who besides capital may need brand commitment, technical expertise and practical tools to shape project that can be financed. Engaging the right teams for conversations with finance providers is also key to ensure that all parties are aligned in a business language that everyone understands.

The outcome of the first cohort in generating project investments for Bangladesh has already led to the development of a second cohort, focussed on India, with prospective projects spanning other key apparel hubs such as China, Vietnam, Indonesia and Turkey. As the scope of countries covered grows, so could the participating number of brands to further deepen collaborative finance.

"Reducing emissions in our supply chains is a shared responsibility. At BESTSELLER, we believe meaningful progress in supply chain decarbonisation requires collaboration across the industry. By joining forces and investing together, we can move from targets to tangible results. The Future Supplier Initiative is an important step in that direction."

Anders Holch Povlsen, CEO, BESTSELLER

Shaping the governance and structure of investments

The shaping of collective investment vehicles is crucial to their success. Facilitation is needed to co-ordinate between competing fashion retailers and their suppliers, as well as bring in third-party investors or partners with the right motivations to deliver the solutions required.

NGOs in the fashion retail space are ideally placed to play this role as independent co-ordinators, as well as to use their presence and influence to surface higher impact projects further upstream in the supply chain, where fashion retailers have less visibility.

Successfully bundled investment packages can be generated from an ecosystem where suppliers are given access to fashion retailers and the wider partnership community. They can be empowered to build a pipeline by identifying projects that have the right synergies for investment, and the right spread of geographic risk to ensure the necessary compliance.

Brands that invest into blended finance bundles will be motivated by both the financial ROI and their ability to report emissions reduction, meaning their investments must target the facilities they source from. The share of impact and investment will depend on the brands participating.

For anti-trust reasons, any data shared must be handled by an independent third party, such as the NGO, who can manage activities and administrate project data. A single brand would only know who they share the project with and what their proportional share of impact and investment will be.

Funding for blended finance projects is typically loan-based. Regulatory and risk considerations mean that, to work, loans must be facilitated by a financial institution with a local presence. These loans are backed and derisked by both brands and potential third-party investors, lowering the cost to ensure the loan is competitively priced for suppliers.

The payback period on investments of this kind typically lies between three and five years. Longer term loans are more valuable for the supplier making capital expenditure investments, but shorter term loans provide quicker payback and impact reporting for the investors.

These collaborative finance tools can feed into wider funding programmes, although they do not have to. Much depends on how the NGO chooses to independently co-ordinate the flow of money to impact projects. The governance for targeted returns for brand investors can be shaped in a clear emissions reduction commitment as part of the initial statement of work and controlled or reported by a steering group nominated by the NGO. Typically, loans can be backed by investors using either a deposit model or guarantee model, but there are also alternatives:

DEPOSIT MODEL

A cash-backed loan where the investors place cash deposits to match the loan being issued into a deposit account with a commercial bank. Interest accrued in this account offsets the interest of the loan, reducing the payback costs to the supplier.

GUARANTEE MODEL

Shares any credit risk between the lending bank, investing parties and a guarantor. If the supplier defaults on the loan, any loss is split between the parties in relation to their respective risk share. Investors place a deposit (typically 10% to 20% of the loan amount) with the commercial bank and pay an annual fee to the guarantor of the main portion of the loan. This reduces both risk and the collateral investment requirement while mitigating credit risk for the lending bank to enable an attractive interest rate for the supplier.

ALTERNATIVE MODELS

Leverage a mix of loans, equity investments, guarantees and pre-arranged offtake agreements. These structures are primarily designed to support supplier expansion or the construction of new manufacturing facilities. In these scenarios, investors acquire partial ownership stakes in the factories and anticipate returns that are in line with similar investment opportunities. This blended finance approach offers the benefit of enabling the establishment of advanced, modern production sites, while also allowing brands to express their preferences regarding sourcing decisions. Such investments can be consolidated into a dedicated climate suppliers' fund.

HSBC: Strategic solutions and financing models

The industry-wide need to finance impact in tier 2 suppliers and beyond is creating an imperative to develop cheaper long-term financing for capital expenditure needs among upstream suppliers. A changing market landscape provides the impetus for transition financing which would benefit from the development of new frameworks such as a transition finance taxonomy for both developed and emerging economies.

Underpinning the changing role of banks at present is a shift from transactional finance to relationship-based structured finance.

Today, banks can support this potential opportunity through a range of finance vehicles, whose success depends on varying levels of credit and risk appetite. These include bilateral exposure deals with partial or full cash security as well as credit vehicles underwritten by the participation of a Multilateral Development Bank (MDB). HSBC offers global trade solutions and sustainable finance products for the textile and garment industry which can be supported by MDBs such as the Asian Development Bank and brand participation in offsetting risk. Currently the two main finance models typically include:

1 **Sustainable Supply Chain Finance (SSCF)**
This model enables banks to offer early payments to buyers' suppliers - typically tier 1 - with pricing based on the buyer's credit standing and further enhanced by the supplier's sustainability performance. S-SCF helps the brands align their sustainability ambitions and goals across their supplier base. By providing access to liquidity and incentivising positive ESG supplier performance through the financing structure. This type of buyer/supplier structure is seen as tool to enhance resilience and support scope 3 emission reductions. Deep-tier (multi-tier) S-SCF aims to extend these benefits beyond tier 1 suppliers to address muti tier suppliers. However, market adoption remains limited due to legal complexities, particularly around blockchain-enabled payment commitments.

2 **Blended finance vehicles**
which bring all partners together such as MDBs, financial institutions, insurers, brands and manufacturers into a marketplace where capital expenditure needs can be identified and met. Brands can provide cash collateral supported by an MDB's risk participation, which typically brings the cost of financing down and encourages more lending. For ESG Capex financing, loan tenors may typically range from 3-5 years depending upon banks and MDB's risk appetite, underlying green equipment and abatement measures put in place for decarbonisation.

Models that perform well typically rely on a strong brand contribution, often through buyer-led activities such as the H&M Future Supplier Initiative (FSI) with additional support from MDBs.

Banks can further build effective models to support scale in financing supply chain decarbonisation through close collaboration with development finance institutions such as the Asian Development Bank, as well as with brands, to create new supplier financing options. These may hold greater weight where buyers provide portfolio-based longer-term guarantees to suppliers. Alignment between these different organisations could enable SSCF tools to reach beyond tier 1 suppliers more effectively.

Wider options include platform-partnership models (such as creating a marketplace and bringing in various actors), leveraging non-bank financial institutions with indirect lending, influencing regulatory or government bodies and working strategically with big anchor corporates who are sourcing from their suppliers. These options would all require infrastructure support from Export Credit Agencies (ECAs) and multilateral guarantors such as the Multilateral Investment Guarantee Agency (MIGA) to accommodate risk factors.

"Finance can be an important catalyst to turn ambition into action. As the white paper highlights, only by rethinking traditional models and promoting industry wide collaboration can we truly unlock the investment to drive scalable impact across these complex fragmented supply chains."

Clair Smith, Head of Sustainable Trade Solutions, HSBC

Conclusion:
Accelerate, collaborate and scale

Decarbonisation is not just about meeting regulatory requirements or appeasing investors; it is about securing the future of the fashion industry and the planet. Carbon emissions are not only intrinsic to the climate emergency the world faces, but they will also test business resilience and increase economic risk. Scope 3 decarbonisation is becoming an existential imperative for businesses, whose sources of supply will come under increasing pressure from the impact of climate change which will lead to mounting financial losses, spiralling costs and stranded assets. Decarbonising supply chains is no longer a sustainability goal but is also a financial and strategic goal for CFOs to hedge against future risk and ensure a viable transition to new energy and production sources.

Decarbonising fashion supply chains is not simple, easy or necessarily cheap. A fragmented and complex multi-tier supply chain in fashion puts upstream origination from suppliers and subcontractors beyond the direct control or visibility of brands. Accountability is difficult and business leaders struggle to tie decarbonisation investments to financial value. The significant cost of achieving net zero across the industry is parcelled out among thousands, possibly millions, of small-scale decarbonisation projects. Even where there is appetite to invest financial instruments to do so can be complex, and do not always deliver equitable results. Without collaboration, brands can find themselves funding decarbonisation programmes that benefit their competitors more than their own business.

Despite these challenges, there is growing evidence that decarbonising today is a critical strategy to drive business resilience and create long-term value. The role of CFOs is evolving from traditional scorekeeping to becoming an architect of future value, which includes a fiduciary duty to secure future success. This amplifies their responsibilities to hedge against long-term risk by securing business continuity and growth. Companies with deeper sustainability integration are more confident in their outlook and better positioned to manage future risks. Decarbonisation investments should no longer be considered aspirational but play an essential role in risk management and business optimisation. The cost of doing nothing is rising and will continue to rise with each day of inaction. Climate risk assessments show that mitigation today avoids far greater losses tomorrow. Decarbonisation investments can also generate cost savings, operational efficiencies, enhanced brand reputation, deeper supplier relationships and stakeholder trust.

Systemic problems demand systemic solutions, and no single brand, supplier, or investor can decarbonise fashion supply chains alone. The gap between short-term profit and long-term risk mitigation is closing. Suppliers need assurances of a long-term industry commitment and brands can drive this as collective custodians of shared supply chains. Policymakers, financial institutions, and technology providers will all form part of the infrastructure for change.

The scale of impact required, at a price everyone can afford, will only be unlocked through collaboration. Alliances, such as Cascale, The Fashion Pact, and the Apparel Impact Institute, are pioneering shared standards, pooled financing, and common reporting frameworks but need more proactive participation from across the fashion industry, and beyond, to succeed. NGOs are an essential part in bridging gaps between brands, suppliers, and investors by designing innovative financial mechanisms.

Financial investments can come through a variety of models. Projects and programmes can be bundled into large, blended finance vehicles that combine public, private, and philanthropic capital to mobilise investment at scale. To achieve this, NGOs and other third-party organisations can create aggregated platforms, risk-sharing mechanisms and a pipeline of projects tailored to the unique dynamics of fashion supply chains.

"As CFOs, our role is not to debate whether sustainability targets should be met, but to ensure how they are delivered. This requires a conversation combining cost efficiency and value creation: reducing risk, strengthening resilience, and safeguarding long-term corporate value"

Adam Karlsson, H&M Group CFO

A collective action for a collaborative future

The road ahead includes hurdles, yet many of the solutions needed to overcome them are already emerging through industry collaboration, creating a foundation for shaping a shared vision and scaling decarbonisation cross fashion's supply chain.

Collaboration can overcome fragmentation, complexity and cost. Consensus on common standards and KPIs can ensure consistent reporting and measurement. Collective capital can be pooled into innovative blended finance vehicles. NGOs can become critical cogs in funnelling funding and expertise into high-impact supplier-led programmes enabling and co-ordinating a wider ecosystem that encompasses Development Finance Institutions, banks, brands, suppliers and other third-party organisations. An industry with a single voice will be able to lobby and advocate for policymakers to build the infrastructure needed to deliver a net-zero future.

If fashion companies can successfully collaborate to collectively drive decarbonisation and future business resilience into their supplier network, then this could form a basis for far deeper long-term collaboration on other systemic issues affecting the fashion industry. Collaborative practices could unlock circular business models, drive scale into alternative sustainable materials, share and scale progressive innovation and support positive behavioural changes in customers. If fashion can be pioneering in this space, it can set a blueprint for other sectors to follow.

Financing scope 3 decarbonisation is essential for progress, yet the path is complex. Success depends on aligning climate impact with business value, building collaborative financing models, and scaling tools that can function across diverse and dispersed supply chains. This will require strong industry alignment, shared infrastructure, and innovative approaches to funding.

The future of fashion is collaborative, and the time to act is now..

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