PwC and EcoVadis in collaboration with the INSEAD Social Innovation Centre

2010

Value of Sustainable Procurement Practices

A quantitative analysis of value drivers associated with Sustainable Procurement Practices

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Executive summary

Relationship between sustainability and value creation will be a key issue to be tackled over the long term. The ability to express sustainability benefits in financial terms is one of the key drivers needed to instil sustainability into company business models. Although it is no easy task, PwC, EcoVadis and Insead believe that it should be one of the priorities for research in this field.

Sustainable Procurement is a new dimension for Chief Procurement Officers (CPOs) who until recently based their decisions primarily on price, quality and time. Sustainability was mainly taken into account on a risk-based approach in line with the global movement towards low cost country sourcing. But how can this risk protection be quantified? And what is the impact on cost reduction and the development of new offers/products?

The aim of this study is to help Senior Procurement Managers face this challenge by providing strong arguments to build a business case with top management and the CEO on the value of Sustainable Procurement. Accordingly we asked ourselves: “Is Sustainable Procurement a true value creation initiative to be welcomed not only by customers but by shareholders and financial markets as well?” To answer this question, we analysed various case studies and interviewed procurement executives. This brought to light strong evidence of value creation, thus bridging the gap and making a first business case for Sustainable Procurement on the basis of three main sustainable value drivers: cost reduction, risk reduction and revenue growth.

The quantitative model was created by the analysis of the three main drivers and their respective impact on the company’s annual procurement spend, market cap and revenue. Their impact was then compared to the implementation cost of a Sustainable Procurement programme.

TYPE	DESCRIPTION	AVERAGE RESULTS	COMPARED TO SUSTAINABLE PROCUREMENT PROGRAMME COSTS	IMPLEMENTATION PROBABILITY
1. Cost reduction	Reduction in total cost of ownership linked to reduced energy costs, reduced over-specification, reduced consumption and reduced social and environmental compliance costs	0.05% of total revenue per project [1]	Up to 6 times payback	High
2. Risk reduction	Financial impact on brand value from bad supplier practices (e.g., child labour, local pollution); economic cost of supply chain disruptions (e.g., noncompliance with environmental regulations)	Additional direct costs as a 0.7% of total revenue	Up to 85 times payback	Low
		Decrease of 12% in market cap	NA	Low
3. Revenue growth	Additional revenue through innovation of eco-friendly products/services, price premium or income from recycling programmes	0.5% of total revenue	Up to 58 times payback	Medium

According to the above model, it appears that the cost reduction impact of Sustainable Procurement (on those categories where cost savings and sustainability benefits are aligned) outweighs the implementation costs in almost all of the cases studied.

(1) This proportion has been calculated on the basis of only one project studied per company, Consequently, the cost reductions seem to be underestimated.

Risk reduction also represents a major benefit for companies given the financial consequences of a supply chain incident in terms of direct and indirect costs.

Revenue growth might be more difficult to achieve, as it requires the procurement departments to work upstream in close cooperation with suppliers and other departments such as R&D and marketing in order to contribute to the creation of new products.

This would mean that sustainability-driven cost reduction alone could fund the entire initiative, allowing companies to benefit from the risk management benefits and the potential revenue growth opportunities. In other words, the savings generated through, for example, a reduction in energy consumption at the company's head office in Europe could fund the suppliers' CSR engagement programmes in high-risk countries, which would in turn protect the brand and improve the company's long-term value.

Evidently, those conclusions should not be used to forecast future performance, but rather to provide some order of magnitude of the financial value of Sustainable Procurement. The results could also vary considerably depending on a company's specific industry. Information from procurement departments on the potential value of sustainable practices for their own company is indispensible in order to carry out further research. However, the availability of this type of information has been extremely limited and will likely continue to pose a challenge in the future.

This study underlines the importance of procurement departments working on all three dimensions of value creation from Sustainable Procurement practices and not only on cost reduction. There is a significant benefit for companies if procurement departments work closely with the marketing and R&D departments upstream on the projects. In most cases, this requires a process modification to involve procurement experts in the design of new products/services. One solution could also be to provide incentives to procurement departments to work on the three dimensions of sustainability value creation which could lead to higher value as well as greater potential benefit from procurement programmes.

Finally, there are also other dimensions of value creation that should be further investigated. We can at least mention two other dimensions that have not been addressed in this study because their financial quantification is also very challenging. The first one is the human dimension since the implementation of a sustainable procurement programme is a lever of attractiveness for the companies regarding their teams. The second one deals with the business models transformation process. In fact if we look at the automotive sector for example, there is a move towards a functionality economy in which consumers will use cars for mobility reasons but will no more buy it. In this transformation process, procurement departments have also a key role to play to accompany those new business models.

Quantifying the value of Sustainable Procurement

Until recently, Senior Procurement Managers focused their initiatives primarily on three dimensions: price, quality, and time. That is not to say that the decisions taken in the procurement department at that time were easy to implement. We have only to remember the potential challenges arising, for example, from the decision to go to India as part of a low cost country sourcing strategy.

We now have a fourth dimension: sustainability. Managing the various risks that arise from environmental and social factors has never been more important. Supply chains are becoming increasingly complex; there are numerous elements in the supply chain that may stop companies from achieving their business objectives. In addition to operational, logistics and customer service risks, reputational risk also needs to be taken seriously. For many organizations, significant new opportunities are emerging, particularly as markets are created for lower carbon, more sustainable goods and services. Today, Sustainable Procurement is considered an important or critical priority by 90% of European CPOs [1]. Yet in most cases, the decision to implement a sustainable supply chain has been based more on intangible factors than on figures. This creates a challenge for the CPOs to justify the initiative to top management or the CEO. Another consequence is that in many organisations, the amount of resources allocated to the implementation of Sustainable Procurement is very limited, and procurement managers struggle to implement these initiatives on a large scale.

The aim of this study is to help Senior Procurement Managers face this challenge by providing strong arguments to build a business case with top management and the CEO on the value of Sustainable Procurement. Accordingly we asked ourselves: "Is Sustainable Procurement a true value creation initiative to be welcomed not only by customers but by shareholders and financial markets as well?" To answer this question, we analysed various case studies and interviewed procurement executives. This brought to light strong evidence of value creation, thus bridging the gap and making a first business case for Sustainable Procurement.

Sustainable Procurement is only in its early stages and many initiatives and further research are needed to facilitate its successful implementation, such as developing the right tools and establishing key performance indicators. The first step to achieving this objective is to obtain full buy-in and support from the organization's top management. Being able to present a solid business case to top management or the CEO is a valuable tool that could position the CPO on the right track for a successful Sustainable Procurement strategy and implementation.

This study will focus on changes linked to the supply chain and areas where procurement can have a leading role. This does not mean that these results can be obtained without the involvement of other departments (R&D, Marketing, etc.). Furthermore, it is clear that most of the value of Sustainable Procurement initiatives can only be achieved when the initiatives are fully aligned with the company's overall sustainability strategy.

(1) In the latest HEC "European Sustainable Procurement Benchmark – 2009", Sustainable Procurement ranked third among the critical priorities of Procurement Managers

Valuation framework

Throughout this study we will use the following definition:

"Sustainable Procurement means taking into account economical, environmental and social impacts in buying choices. This includes optimizing price, quality, availability… but also environmental life-cycle impact and social aspects linked to product/services origin."

This definition implies that companies need to be able to establish a baseline, but also measure incremental benefits linked to Sustainable Procurement.

When we think of valuing the benefits of Sustainable Procurement, most of us immediately think of cost reduction initiatives, such as:

- The savings resulting from energy-efficient lighting,
- The impact of reducing packaging by 20%,
- The cost benefit impact of providing the truck fleet with a new ultra efficient engine resulting in a 35% reduction in fuel consumption.

As we can see, these examples are easily quantified and clearly show how initiatives typically aim at improving a company's EBIT. But is this all that Sustainable Procurement stands for? Is this the only factor that could directly or indirectly impact an organisation's performance? Two other areas have been identified in this study as having a significant impact on a company's valuation: risk reduction and revenue growth. Unlike cost reduction, these other two factors are not as straight-forward or easy to quantify.

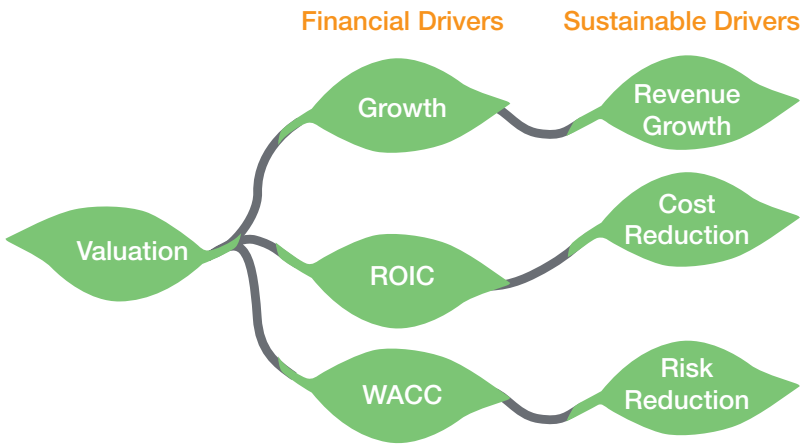


FIGURE 1 - THE THREE SUSTAINABLE DRIVERS AND HOW THEY DIRECTLY IMPACT VALUATION

In financial terms the value of the company is driven by top line growth (measuring the speed of the company's revenue growth), its return on invested capital (ROIC) (measuring the company's effectiveness in generating income), and the weighted average cost of capital (WACC) (measuring the cost of obtaining funds from financial markets). We have presented these financial drivers in sustainability terms in order to demonstrate how risk reduction and value drivers could also positively impact valuation. It is important to note that in this analysis, we have grouped the three drivers and linked them to their main financial driver; however, in practice there is no clear division and an initiative that impacts one driver (e.g., revenue growth) could also impact another (e.g., risk reduction). Take for instance a hypothetical food supply company that develops a new range of fair trade and/or eco-labelled products, this company can claim revenue growth either through a price premium or an increased market share by reaching a new segment of customers. At the same time the company could reduce risk as this type of sourcing involves a tighter control of environmental and social conditions along the supply chain.

To better understand the impact of these drivers, we will analyse case studies associated with each driver and quantify the financial impact. We will also propose an overall estimate of the potential financial benefits of a Sustainable Procurement initiative.

The various case studies have been selected from different sectors and a minimum of ten cases have been chosen for each dimension in order to ensure that the results are representative. Most of the data provided in this report are based on publicly available information. The limitations of this methodological approach are mentioned in the last section of this study.

We would like to thank Luke Van Wassenhove and Uwe Schulte from INSEAD Social Innovation Center for their advices and supervision of this study.

1) Cost reduction

Among the three factors mentioned, cost reduction is perhaps the first thing that comes to mind when thinking about the benefits of Sustainable Procurement. As illustrated in the table below, sustainability initiatives can result in the reduction of costs (in particular total cost of ownership [TCO]) in different ways:

- **Reduced internal costs**: Two main drivers can be considered to reduce internal costs: procurement of more efficient products and the reduction of consumption. For many products sustainability can lead to investments in more efficient products (lower energy consumption, longer lifespan, lower maintenance cost) where higher investment cost will be offset by lower operating costs, resulting in a lower TCO. Sustainability can also drive changes in behaviours by reducing the consumption of non-production related product categories such as paper, energy for buildings, business travel, etc.

- **Reduced specifications/demand**: Sustainability analysis can push customers to reduce over-specification (a famous example being over-packaging) for many products and services, resulting in lower costs.

- **Reduced environmental and social compliance costs**: social and environmental taxes can take various forms and represent significant expenses for companies. The Waste Electrical and Electronic Equipment (WEEE) and Packaging taxes in the European Union paid by producers are essentially calculated based on weight and product category. However eco-design criteria are progressively being taken into account in the calculation of

these taxes (e.g., use of recycled raw materials in packaging). Cost reduction can be achieved through lighter and eco-designed products. Social taxes related to, for example, the employment of disabled people (minimum 6% of the total workforce in France) can also be reduced by implementing Sustainable Procurement practices.

The following selection of case studies covers a wide range of sectors such as transport, retail, food and pharmaceuticals. Cost reduction initiatives obtained thanks to the sustainability driver can clearly be achieved in all types of sectors.

It should be noted that the examples of cost reduction detailed below do not take into account the investments needed for the implementation of these actions. Furthermore, the examples are not exhaustive and do not take into account all cost reduction achieved by the companies mentioned through the implementation of Sustainable Procurement practices. The examples only represent one project per company.

TABLE 1 - CASES OF SUSTAINABILITY COST REDUCTION INITIATIVES

	COST REDUCTION	CASE STUDIES
Reduced internal costs (1)	€1 million	2007: A mail and logistic company saved €1M by replacing air transport with train transport for the Paris-Bordeaux route, reducing cost and CO2 emissions simultaneously.
	US $200 million	2008: By driving fewer miles in its fleet, **Wal-Mart** reduced CO2 emissions by 200,000 metric tons. These efficiency improvements also resulted in fewer trucks on the road, less wear-and-tear on roads, highways and bridges, as well as a savings of nearly US $200 million in 2008.
	US $8 million	2007: **UPS**, whose trucks drive 4 billion kilometres a year, achieved annual savings of around 48 million kilometres and 14 million litters of fuel by implementing its Route Optimization programme. This equates to 1,100 fewer trucks per day sent down the road. The results were no less than US $8 million in fuel procurement savings and a reduction of 32,000 tons of CO2 emissions year on year.
	US $12 million	2008: Water conservation, energy efficiency, green building projects and other eco-friendly initiatives yielded **Baxter International Inc.** a total of US $11.9 million in environmental income, savings and cost avoidance.
	US $1 million	2008: An Italian multi-utility company concluded that public lighting by CFL bulb lamps would result in annual savings of €1 million and 6,500 CO2/tons.
	N.A.	2009: **Accor Hotels**. The use of energy-efficient lights in 2,300 hotels yielded savings of 72 million kWh of electricity in one year and the use of tap nozzles resulted in a 4 million m3 reduction in water consumption in one year.

(1) Most of the data in this report were based on publicly available information and were not verified independently

	COST REDUCTION	CASE STUDIES
Reduced Specification	N.A.	2004: **Lafarge** introduced one-ply cement bags instead of the standard double- or triple-ply bag, reducing the cost of materials used in production.
	US $3.4 billion	2007: **Wal-Mart** launched "CO2 Scorecard" aimed at saving 0.6 million tons of CO2 and US $3.4 billion in costs through reduced packaging content.
	€100 million	2009: Finnish mobile phone giant, **Nokia**, saved more than €100 million by placing a greater emphasis on the reduction of packaging.
	€2.5 million	2010: **Danone France** removed the outer cardboard packaging of Activia and Taillefine yoghurt saving €2.5 million.
	€54,000	**Alter Eco**, a French fair trade company, also reduced cardboard packaging of its chocolate bars from 220 g/m2 to 205 g/m2 (a 7% reduction). Saving 1.5 euro cents per bar, amounts to a significant saving considering that the company is selling around 3.6 million units per year.
	N.A.	2010: **PUMA** launched the “clever little bag” reducing paper consumption by 8,500 tons, saving 20 million Megajoules of electricity, 1 million litres of fuel oil and 1 million litres of water. During transport 500,000 litres of diesel is saved and lastly, due to the replacement of traditional shopping bags with the lighter built-in bag the difference in weight can save up to 275 tons of plastic.
Reduced compliance costs	€3.2 million [2]	In France, disabled people must represent 6% of the workforce of companies employing more than 20 people. Companies that do not comply with this law must pay an annual tax to a public agency. Half of this quota can be fulfilled by working with social and solidarity organisations. Therefore procurement departments can play a key role in reducing the amount of this specific social tax.
		Example of cost reduction for a company with 20,000 employees [3]: - Number of disabled employees required in the workforce: 1,200 - Tax reduction if the company works with social and solidarity organisations and provides work to 600 full-time equivalent employees: €3.2 million.

(2) Theoretical value
(3) www.agefiph.fr

Those cost reductions per project represent on average 0.05% of the company's total revenue, ranging from 0.005% to 0.36%, according to the sample of cases studied [4] (cost reduction representing on average €10 million). Consequently, the cost reductions are underestimated since only one project per company has been analysed. The examples detailed above show that concrete actions managed and implemented by the procurement department related to the car fleet, travel policy, printing policies, packaging processes and other areas can in some cases already justify the implementation costs of a dedicated Sustainable Procurement team as we will explain in the final part of this study.

Accordingly, sustainability-related cost reduction initiatives can rapidly raise significant amounts. For example, in 2005 Wal-Mart was able to save US $2.4 million on logistics costs by reducing the package size of a single toy. By applying the same technique to other product categories, Wal-Mart plans to save over US $3 billion per year [5]. Wal-Mart expects to generate further savings, albeit in smaller amounts with regard to transportation, travel, etc. Another multinational company, 3M, claims that the emphasis on sustainability has reduced its costs by US $1.4 billion over the past three decades. Even smaller companies can save millions of euros through the implementation of Sustainable Procurement practices.

(4) The average was calculated based on the cases of La Poste, UPS, Baxter, Wal-Mart, Accor, Nokia, Alter Eco and Danone. The US $3.4 billion cost reduction related to Wal-Mart's CO2 scorecard is not taken into account as this figure more closely represents an objective than a real achievement.

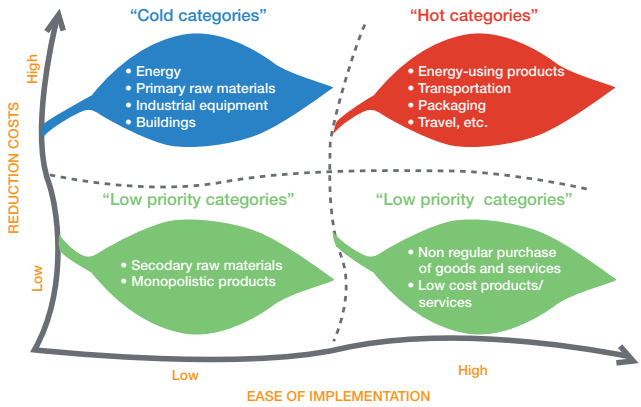
(5) Wal-Mart 2008 Annual Sustainability Report.

Hot and cold categories

But how should a CPO tackle a procurement portfolio that is composed of many different product categories? There are certain product categories that represent a high potential for cost reduction but that are not necessarily controlled by the procurement department such as energy, raw materials, chemicals used for production process, etc. **We identify those product categories as "cold"**. Green procurement criteria should be included for those product categories (green energy, organic food, raw materials with a higher recycled content, etc.) in order to benefit from the risk reduction or revenue growth drivers. The cost reduction lever also exists in these cases but generally is not directly controlled by the procurement department. Nevertheless, it is possible to identify product categories that contribute both to cost savings and lower environmental impacts. **We identify those product categories as "hot"**. Ideally, the analysis should be performed on the basis of the sectors' specific characteristics and the specific company purchasing categories.

The following table presents a schematic view of a procurement portfolio divided into "hot", "cold" and "low priority" product categories placing us in the CPO role. This method can apply to almost all types of companies:

TABLE 2 – "HOT" AND "COLD" PRODUCT CATEGORIES



2) Risk reduction

As the world grows more connected and we face an increasingly globalised economy, competitive forces require us to take decisions that increase risk exposure. In the past working with China, India or Brazil meant finding the lowest cost; however, this rock-bottom price was partnered with uncertainty and increased risk.

Take for instance Mattel's 2007 crisis when a supplier used lead-contaminated paint on Mattel's toys, causing the American company to recall about 20 million products with an overall cost of over US $100 million. Senior Procurement Managers are aware of this risk, to the point that it is their main driving factor when deciding to implement a Sustainable Procurement initiative [1].

The case studies presented below show the economic consequences of supply chain issues. In each case the brand reputation of companies was affected by events involving safety, environmental or social issues with suppliers. These events have also led to significant direct costs (recall of products, financial penalties) and/or indirect costs (decrease in market share, sales and market cap, product boycotts) for these companies.

(1) Avoiding risk to brand/image was reported as the top driver for Sustainable Procurement initiatives according to HEC's "European Sustainable Procurement Benchmark 2009"

TABLE 3 - CASES OF RISK REDUCTION

	COSTS [2]	CASE STUDIES
Direct costs	US $110 million	2007: Mattel spent US $110 million on recall expenses and a communication campaign due to an erroneous assessment of lead content used by Tier-2 Suppliers.
	US $11 million	2008: Baxter spent US $11 million on recall expenses of Heparin products made by a Chinese supplier.
	€200 million	2008: Total S.A. was charged with negligence in oil transport relating to the 1999 Erika oil spill resulting in €200 million in cleaning expenses plus a fine of €200 million

Regarding the direct costs linked to sustainability issues after a supply chain disruption, we have established that those costs represent on average 0.7% of a company's revenue.

	STOCK VALUE DECREASE	CASE STUDIES
Indirect costs	-14%	2006: **Palm's** stock value dropped 14% in June 2006 due to suppliers not meeting the RoHS directive causing Palm to withdraw Treo 650 from the European market.
	-11%	2006: Norwegian fund sells €414 million in **Wal-Mart** shares due to child labour issues with suppliers. The exclusion of Wal-Mart from the Norwegian sovereign fund was officially announced 6 June by the Finance minister of Norway. Wal-Mart's market share fell 11% between 1 June and mid-July.
	-13%	2008: In the first quarter of 2008, **Baxter International's** stock value decreased 13% due to contamination of Heparin imported from China.
	-18%	2007: During the crisis related to the recall of toys with unacceptably high levels of lead paint, the stock value of **Mattel** dropped 18% between August and December 2007. In addition, several lawsuits have been brought against Mattel as a consequence of the incident (e.g., Mattel was sued by the State of California in November 2007).
	-5%	**1999**: On 27 December, the stock price of **Total SA** fell 5% in one day. This fall can be directly correlated with the effects on investors of the media coverage of the Erika oil spill.

(2) Most of the data in this report were based on publicly available information and were not verified independently

Despite the difficulty of evaluating the effects of supply chain sustainability issues on the market capitalisation of a company, the above examples allow us to establish a direct correlation between sustainability-related events and the decrease of these companies' share price. This correlation appears to exist but generally affects market capitalisation over a short-term period. **After analysing the cases above, we measured an average 12% decrease in market capitalisation after a supply chain disruption due to a sustainability issue.**

But exceptional events on the supply chain do not necessarily fit the average results…

In other cases, ethical supply chain issues have impacted a brand's reputation without directly affecting the company's market capitalisation or major environmental issues have led to a disastrous situation for a company with direct and indirect costs much higher than those described above:

- In June 1996, **Nike** was publicly accused by Life magazine of using child labour in Pakistan to manufacture soccer balls. Despite NGO protests and media pressure, the share price did not show any sign of decreasing over the year. The crisis lasted until May 1998 when the President of Nike publicly apologised and announced several long-term measures to improve working conditions at Nike's supplier factories. Even if the indirect costs of the scandal are not easy to determine, Sustainable Procurement practices have been implemented at Nike. In 2005 Nike was the first company in its industry to disclose its factory list and commit to supply chain transparency by publicly disclosing the list of the 700 supplier factories producing Nike products. On average, in 2009, Nike supply chain factories were audited 1.8 times.

- The involvement of **BP**'s supplier Halliburton in the Deepwater Horizon oil spill represents an interesting example of a company facing both direct and indirect costs due to a risk management failure. The National Commission on the BP Deepwater Horizon Oil Spill said Halliburton knew of, but did not address, flaws in the cement used in the doomed well before the disaster on 20 April 2010. BP shares slid 54% in the weeks following the offshore oil spill. A part from this stock value decrease can be related to the responsibility of Halliburton whose shares slid also 8% on 28 October following the report's release, wiping out market value worth US $2.5 billion. Halliburton is also likely to face at the very least penalties of hundreds of millions of dollars, and possibly as much as US $1 billion to US $2 billion.

3) Revenue growth

The revenue growth driver is perhaps the least explored area in procurement. It is also the most complex to achieve, as it includes leveraging the CSR practices of suppliers, and their environmental innovations, in order to create additional sales from existing customers or capture new markets. Its benefits are not as clear as those described in cost reduction and it is not as high on senior executives' agendas as risk reduction. This is due to the fact that out of the two possible ways to drive growth (price or volume), a price increase is traditionally difficult to implement unless the customer perceives added value and is therefore willing to pay for it. Volume increases, on the other hand, can be hard to substantiate as stemming from a procurement practice.

New business models based on a fully sustainable supply chain already exist, especially in the B to C sector, and the so-called "green" and "ethical" brands try to capture those new consumers. Over the past few years, companies such as Divine Chocolate, Alter Eco, Werner Mertz, Hipp or more recently JEL in the jewellery sector have been trying to build their processes on a fully sustainable basis. Therefore, those companies can claim that 100% of their revenue is generated thanks to their Sustainable Procurement practices. In this context, for more global companies, the question can be raised as to whether products seen as sustainable will become a requirement to maintain one's current market share, and not necessarily a basis for additional revenue generation. That is why some global companies have recently tried to enter this "green" market either through the acquisition of an existing company (e.g., Unilever with Ben & Jerry's, Danone with Stonyfield's brand Les 2 Vaches, etc.) or through the creation of a dedicated "green" portfolio (Starbucks, Kraft, Sun, etc.). Sustainable procurement programmes are also clearly competitive advantages to win contracts (in the public sector for example) in which the weight of sustainability selection criteria is constantly increasing in the tender process. These are some cases for which we have tried to identify concrete revenue growth based on procurement sustainability practices.

TABLE 4 - CASES OF REVENUE GROWTH

	REVENUE [1]	CASE STUDIES
Increased sales	€12 million	Stonyfield has been a **Danone** subsidiary since 2001. It sells organic yogurts through its brand Les 2 Vaches that involves specific procurement contracts with local organic milk producers. In France, Les 2 Vaches sales represent approximately 0.6% of Danone revenue.
	€200 million	In 2000 **Unilever** acquired ice cream maker Ben & Jerry's and in 2010 announced that the brand would go fully fair trade across its entire global flavour portfolio by 2013. Other companies such as Nestlé and Starbucks also recently made concrete fair trade commitments with regard to portions of their portfolios. There is a strong belief at the top-management level of those companies that fair trade sourcing of their products will contribute to future sales. In 2009, Ben & Jerry's sales represented approximately 0.5% of the Group's total revenue.
	€25 million	2009: Dutch retailer **Ahold** through its subsidiary Albert Heijn, a supermarket chain with annual sales of more than €6 billion, purchased thousands of tons of mangoes from the west African country of Mali. Ahold estimates that through its sustainable trade activities it has boosted revenue by €20 million – €25 million over the last five years.
	£160 million (one year basis)	2009: A sustainable approach to the selection of 278 sub-contractors helped **Bovis Lend Lease** win a £2.4 billion fifteen years contract to build schools in the UK's second largest city, Birmingham.
	€25 million	2009: **Armor Développement** renewed its business with La Poste thanks to the boosting of organic and ethical cotton production. Professional clothes production represents 35% of Armor's revenue. In this sector, most clients ask for specific environmental and social clauses with a rating which represents 5% to 10% of the selection criteria (up to 25% in specific cases). Armor successfully continued its business development thanks to its strong Sustainable Procurement policy.
	N.A.	2008: **Grainger**, a wholesaler of industrial supplies, achieved a 20% increase in green product purchases even during the US economic downturn.
	€ 500K	2009: **Aximum** introduced a new green product to the market which now represents 10% of annual sales for the thermoplastic range of products.

	REVENUE [1]	CASE STUDIES
Income from recycling programmes & end-of-life products	US $28 million	2006: **Wal-Mart** expected additional income of US $28 million through plastic recycling programmes in stores.
	N.A.	2010: Many companies sell their old machines for second-hand use which can represent a significant source of revenue, e.g., **SNCF**, the French railway company, recently sold second-hand trains to the national railways companies of Romania, Greece and Morocco.

Isolating and measuring revenue growth obtained thanks to Sustainable Procurement practices is a complicated undertaking. Excluding those companies classified as "fully sustainable", traditional companies leveraging their supply chain to develop new sustainable products can benefit from a wide range of results: **Analysing some of the cases above we have measured [2] growth amounting to 0.01% to 2% of the company's revenue, representing on average 0.5% of the revenue**. This is due to the fact that revenue growth is also closely linked to the strengthening of a brand's reputation through sustainable practices as well as other initiatives.

(1) Most of the data in this report were based on publicly available information and were not verified independently

(2) Note that we have considered for the cases related to a call for tender (public contracts) a specific weighting related to the sustainable procurement program

Importance of life cycle assessment approach

Life cycle assessment (LCA) has been used for a long time to understand the overall environmental footprint of a product throughout its full life cycle, notably its supply chain. LCA is also used as a support to develop companies' product strategy by identifying areas for improvement and by more effectively pointing out the improvements already made.

Suppliers have a role to play in this agenda, firstly because they are requested to provide data on their own products' environmental performance, secondly because some environmental improvements are included in the supply chain. More and more cases show suppliers involved with their clients in the eco-design of products simply because those eco-designed products have the potential to increase the market share for both the client and supplier.

We can illustrate this by looking at the low-carbon economy's market developments. Replacing fossil-based raw material by biomass-based raw material is one way to reduce a product's carbon footprint. In a growing market such as green chemistry, companies have to expand their sourcing and work together with suppliers to develop new "greener" products and generate profits.

To know more about LCA, visit www.ecobilan.com

Implementation cost

To estimate the implementation costs of such programmes, we looked at the following areas:

- Internal Sustainable Procurement teams
- Third party costs for supplier audits, evaluations and follow-up [1]
- Change management costs: training, communication, process re-design, etc.

We analysed the Sustainable Procurement programmes of a typical multinational company (Global 500 company with revenue of €20 billion) which is representative of the case studies evaluated in this study. **We estimate a potential implementation cost of approximately 0.01% of company's revenue, representing less than 1% of the total procurement function operating budget.**

TABLE 5 - COST OF IMPLEMENTATION

REVENUE	€20 billion
SPEND VOLUME (IN € BILLIONS)	€10 billion
	(50% of revenue on average)
SUSTAINABLE PROCUREMENT COSTS	
Internal team	€500,000
	(For five FTE's fully-loaded costs for the company)
Suppliers assessment and remediation costs	€600,000
	(CSR assessments based on 500 suppliers, followed by 100 on-site audits)
Other CSR procurement tools	€250,000
	(e.g., databases, vendor rating systems, knowledge tools)
Training costs	€150,000
	(On the basis of 300 buyers trained)
TOTAL	**€1,500,000**
(As a % of revenue)	**0.008%**
(As a % of procurement function operating budget)	*0.75%*
	(Assuming total procurement costs of 2% of €10 billion spend)

This model only provides a general overview of what implementation costs can be. For example, time spent by the buyers and the internal clients on CSR aspects (implementing CSR criteria in tenders, reading information, etc.) is not taken into account in this valuation.

Suppliers' assessment costs can also vary significantly from industry to industry depending on the number of suppliers involved (e.g., Aerospace versus Retail). In the above example a company with 10,000 suppliers only works with the 500 most strategic (or high risk) suppliers. It is now possible to greatly reduce costs by leveraging multi-stakeholders collaborative platforms (such as AIM-Progress, Sedex, EICC, Fair Factory, EcoVadis) which allow companies to share the costs and work involved in audits.

(1) Note that we have considered for the cases related to a call for tender (public contracts) a specific proportion of revenue growth related to the weight of the sustainability dimension in the selection process

Quantitative Model

The quantitative model was created by the analysis of the three main drivers and their respective impact on a company's annual procurement spends, market cap and revenue. Their impact was then compared to the implementation cost of a Sustainable Procurement programme.

TYPE	DESCRIPTION	AVERAGE RESULTS	COMPARED TO SUSTAINABLE PROCUREMENT PROGRAMME COSTS	IMPLEMENTATION PROBABILITY
1. Cost reduction	Reduction in total cost of ownership linked to reduced energy costs, reduced over-specification, reduced consumption and reduced social and environmental compliance costs	0.05% of total revenue per project (1)	Up to 6 times payback	High
2. Risk reduction	Financial impact on brand value from bad supplier practices (e.g., child labour, local pollution); economic cost of supply chain disruptions (e.g., noncompliance with environmental regulations)	Additional direct costs as a 0.7% of total revenue	Up to 85 times payback	Low
		Decrease of 12% in market cap	N.A.	Low
3. Revenue growth	Additional revenue through innovation of eco-friendly products/services, price premium or income from recycling programmes	0.5% of total revenue	Up to 58 times payback	Medium

(1) This proportion has been calculated on the basis of only one project studied per company, Consequently, the cost reductions seem to be underestimated.

Caveats and limitations

It is important to note the limitations of this study. The analysis was based on a limited number of case studies and interviews, enough to provide a rough indication of benefits, but insufficient to provide a detailed breakdown. Published information from procurement departments on the potential value that sustainable practices represent for their own company is extremely limited and will likely continue to pose a challenge in the future. Most of the data in this report were therefore based on publicly available information, but were not verified independently. Similarly, we did not analyse the environmental lifecycle impact of the case studies reported (i.e., some case studies might show a benefit in terms of CO2 emissions but omit the negative impact on another sustainability dimension such as water consumption).

This report should therefore not be used to predict future performance, but rather to provide some order of magnitude of the financial value of Sustainable Procurement. The results could also vary considerably depending on a company's particular industry.

Moving forward

Based on the figures described above, the business case for Sustainable Procurement seems to be very clear. So how can we explain why very few companies have made a strong commitment to Sustainable Procurement initiatives?

One of the main difficulties might be linked to the fact that few organisations have the necessary vision, organisation and budget to risk certain costs (i.e., implementation costs) for uncertain benefits (i.e., reduced risks and revenue growth. This is also related to organisational boundaries where, for example, the Procurement Director is given incentives and rewards for cost reductions but not for risk reduction or contributions to revenue growth.

However, according to the above model, it appears that the cost reduction impact of Sustainable Procurement (on those categories where costs savings and sustainability benefits are aligned) outweighs the implementation costs in almost all of the cases studied.

Risk reduction also represents a huge benefit for companies considering the financial consequences of a supply chain incident in terms of direct and indirect costs.

Revenue growth might be more difficult to achieve, as it requires procurement departments to work upstream in close cooperation with suppliers and other departments such as R&D and marketing in order to contribute to the creation of new products.

This means that sustainability-driven cost reduction alone could fund the entire initiative, allowing companies to benefit from the risk management benefits and the potential revenue growth opportunities. In other words, the savings generated through, for example, a reduction in energy consumption at the company's head office in Europe, could fund the suppliers' CSR engagement programmes in high-risk countries, which would in turn protect the brand and improve the company's long-term value.

In order to maximise benefits in such a way, procurement departments should not work independently but rather closely integrate their actions into the overall strategy of the company.

Finally, if this study underlines the importance of procurement departments working on all three dimensions of value creation from Sustainable Procurement practices and not only on cost reduction, there are also other dimensions of value creation that should be investigated. We can at least mention two other dimensions that have not been addressed in this study because their financial quantification is also very challenging. The first one is the human dimension since the implementation of a sustainable procurement programme is a lever of attractiveness for the companies regarding their teams. The second one deals with the business models transformation process. In fact if we look at the automotive sector for example, there is a move towards a functionality economy in which consumers will use cars for mobility reasons but will no more buy it. In this transformation process, procurement departments have also a key role to play to accompany those new business models.

Appendix I – Value drivers

The following theoretical value drivers served as a basis for this research:

TABLE 6 - VALUE DRIVERS

VALUE DRIVER	THEME	COMMENTS
1. Risk reduction	Reduced material costs/ carbon management	E.g., cost increase/decrease related to suppliers having sub-optimal energy/CO2 consumption
	Reduced consumption	Savings due to reduction in consumption of fuel, etc.
	Reduced specifications	Savings due to complying with new specifications
	Reduced compliance costs	Savings due to tax payment optimisation
2. Revenue growth (improved value)	Direct costs	Economic cost of supply chain disruptions (e.g., product recall, financial penalties)
	Indirect costs	Financial impact on brand value, market share, market cap, boycott from bad suppliers' practices (e.g., child labour, local pollution, waste management)
3. Cost reduction	Eco-Innovation	Additional revenue through innovation with regard to eco-friendly products/services
	Increased sales	Added revenue from increased sales of green products/services
	Income from recycling programmes	Added income through introduction of recycling programmes

Appendix II – Cases analysed

CASE STUDY	YEAR	TYPE	REFERENCE
Mattel	2007	Risk reduction – direct cost	*www.scribd.com/doc/19229966/Due-Diligence-Handbook*
Total SA	1999	Risk reduction – direct cost	*www.cedre.fr* *www.itopf.com*
Baxter	2008	Risk reduction – direct cost	*www.injuryboard.com*
Nike	1996-1998	Risk reduction – indirect cost	www.american.edu/TED/nike.htm The stock value increased from US $21.29 on 31 May 1996 to US $24.46 on 31 December 1996w
Wal-Mart	2006	Risk reduction – indirect cost	*wakeupwalmart.com/facts* *The stock value decreased from US $44.6 on 1 June 2006 to US $39.6 on 17 July 2006*
Palm	2006	Risk reduction – indirect cost	Yahoo Finance
Baxter	2008	Risk reduction – indirect cost	The stock value decreased from US $61.48 on 7 January 2008 to US $53.5 on 3 March 2008.
Mattel	2007	Risk reduction – indirect cost	The stock value decreased from US $20.69 on 1 August 2007 to US $17.25 on 28 December 2008.
Total SA	1999	Risk reduction – indirect cost	*Les Echos*, 28 December 1999
BP	2010	Risk reduction – indirect cost	The stock value decreased from US $58.90 on 19 april 2010 to US $27.02 on 21 June 2010.
Halliburton	2010	Risk reduction – indirect cost	Reuters, 29th October 2010
Wal-Mart	2008	Cost – reduced consumption	*Wal-Mart 2009 Sustainability Report - Logistics*
An Italian multi-utility company	2008	Cost – more efficient products	*Interview*
La Poste	2007	Cost – reduced consumption	*Interview*
UPS	2007	Cost – reduced consumption	*2008 UPS Corporate Sustainability Report*
Accor Hotels	2009	Cost – more efficient products	*Corporate website of the company*

CASE STUDY	YEAR	TYPE	REFERENCE
Lafarge	2004	Cost – reduced specifications	*Interview*
Baxter	2008	Cost – reduced consumption and carbon management	*Sustainability Priorities Report. Baxter 2008*
Nokia	2009	Cost – reduced specifications	*www.sustainable-sourcing .com*
Danone	2009	Cost – reduced specifications	*Interview published in Le Figaro*
Puma	2009	Cost – reduced specifications	*Corporate website*
Aximum	2009	Growth – increased sales	*Interview*
Grainger	2008	Growth – increased sales	Grainger, a wholesaler of industrial supplies, reported a 20% increase in green products purchases even during the US economic downturn
Bovis Lend Lease	2009	Growth – increased sales	*www.sustainable-sourcing.com*
Wal-Mart	2006	Growth – income from recycling programmes	*www.sustainable-sourcing.com*
Ahold	2009	Growth – increased sales	*Sustainable Procurement from developing countries* *Practices and challenges for businesses and support agencies by Marije J. Boomsma*
Danone & Les 2 Vaches	2009	Growth – increased sales	*www.lsa-conso.fr*
Unilever & Ben & Jerry's	2009	Growth – increased sales	*www.unilever.com*

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About EcoVadis

EcoVadis operates the 1st SaaS collaborative platform helping major companies assess their suppliers' environmental and social performance. EcoVadis combines an information system and a network of CSR analysts in order to provide buyers with simple and reliable information covering 150 purchasing categories, 150 countries, and 21 indicators (ranging from "CO2 emissions" to "child labour"). EcoVadis solutions can help businesses reduce risks and improve their suppliers' performance. At this time, over 40 major international groups (and close to half the companies listed on the CAC40 index) use EcoVadis to assess their suppliers' CSR performance. In a recent study, UNEP/Global Compact mentionned that "Businesses should use databases like EcoVadis (…) for they collect and distribute data about suppliers and they provide buyers with an integrated supplier assessment tool focused on Sustainable Development indicators." ("Unchaining Value" Report).

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About Insead

Social innovation is the introduction of new business models and market-based mechanisms that deliver sustainable economic, environmental and social prosperity.The INSEAD Social Innovation Centre is supporting INSEAD's mission and values, the INSEAD Social Innovation Centre (ISIC) is an inclusive platform for cross-disciplinary research and engagement in the area of social innovation.

The ISIC is active in three areas:

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Conducting research that advances the theory and practice of social innovation

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Outreach
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