



A 2009 HPS White Paper by Brett Wills:

The Business Case for Environmental Sustainability (Green)

Achieving rapid returns from the practical integration of Lean & Green

It is a myth that being environmentally responsible is injurious to profitability. Companies such as Powersmiths and All-weather Windows destroyed this myth in their presentation at the world's largest Lean manufacturing conference which was held in Toronto in October, 2008. And more myths are being disproved as the need to eliminate overlooked wastes escalates to protect competitiveness and productivity.

Competing and winning today in manufacturing requires a Vision that includes Environmental Sustainability (Green) with enterprise-wide practical strategies that deliver clear, measurable, and rapid returns. Today's winning companies are combining Lean and Green strategies and tactics to spot and eliminate many wastes that are often overlooked.

The current definition of Green has contained the notion of "helping to sustain the environment for future generations." While ultimately true, today's urgencies demand more immediate and specific returns to launch projects in the near future. Returns like positive cash flow, reduced energy, material, and operating costs can make or break a company today. The emerging working definition of Lean as ***"The elimination of waste everywhere while adding value for customers"*** is bringing Lean and Green together at last. The reason being is that Green does this elegantly by following the wisdom of the natural world which is both truly efficient and effective in creating value and that produces no waste at all. Any "waste" that is produced by nature equals food (has value) for something else. To truly eliminate all waste and continue to create value, organizations must move towards environmental sustainability.

However, for a united Lean/Green strategy to succeed, the learning curve must be short and the processes easy to understand and deliver. Environmental Sustainability must be as commonsense as Lean – it must enable us to quickly identify and eliminate wastes that may well include energy consumption, landfill avoidance, and much more. The good news is that this common sense approach to going green has been formalized into a process known as the Green Value Stream (GVS) approach. This approach not only has its roots in lean thinking but it also meshes very well with existing lean programs and efforts

The rub though is that even with a road map for going green there is still a great deal of uncertainty as to the actual cost of going Green. While some contend that Green products, materials, processes and designs are comparable in price and benefits to traditional ones - others feel that these things can not be made green or that doing so makes them more expensive and urge a focus on long-term cost savings to justify their use now. This old way of thinking is quickly disappearing as more and more companies show astonishing results from a focus on environmental sustainability.

In either case, plant overhauls, process & flow improvements, equipment & energy optimization, can be costly and time-consuming, and may pose a threat to current stable processes. This means that to achieve full support today for these long term strategies, there needs to be a good, clear business case to commit your company to Environmental Sustainability/ Green projects. We agree.

Fortunately, one does not have to jump in head first with these major overhauls, there are many quick hits that can be taken that require very little time, effort or investment that produce immediate savings and many other benefits. The trick is you just need the process for doing so, a process like

the Green Value Stream approach. Even more good news is the notion that the larger Green initiatives are taken out of altruism is fading as the returns from their implementation are totaled. Many of these have become great revenue generators. Today's leaders understand that sustainability is now a critical part of the core value of the company. Employees are equipped, and given the freedom, to be creative and look for alternatives they may not have seen before. As this change in management appears, it comes into alignment with the leadership characteristics required to make Lean effective.

Recent studies, reports, and best practices are confirming that Small Medium enterprises are particularly well suited to put Lean and Green thinking to work in their strategic plans. In addition to the major benefits discussed below, this will also assist them in coping with the increasing number of environmental regulations.

The Major Benefits

This White Paper discusses six major economic business benefits to be gained by 'going Green.' They are provided by a Plant Manager who has executed the leadership, processes, and training needed to make a compelling case for embracing this change toward a greener way of being that leads to increased competitiveness.

And while there are many, it is important to begin with those essential for you. The following are arranged according to the author's experience – yours may vary, as no two companies can ever be the same but these six key benefits are worth examining.

1. **Direct Cost Savings**
2. **Increased Customer Loyalty and Attraction**
3. **Increased Employee Attraction and Retention**
4. **Ability to Grow**
5. **Innovation and Development of New Technologies**
6. **Increased Profit and Shareholder value**

1.0 Direct Cost Savings

Perhaps the most talked about business benefit of going Green is the potential for cost savings – on everything from reduced raw material costs to reduced operational and administration costs. This is true and the logic is simple: if fewer raw materials are used – or reused – it will deliver a positive environmental impact that will save money. If less energy and water are used – and less garbage is produced and less distance traveled – there will be substantial savings on the material as well as reduced operational and administration costs. Many companies are already harvesting these savings which add to the bottom line.

According to a 2008 Study appearing in The Economist magazine entitled "Doing Good: Business and the Sustainability Challenge", DuPont cut costs by \$2 billion since 1990 through energy reduction initiatives alone. In addition, 3M has saved \$82 million between 2001 and 2005 and reaped another \$10 million in savings in 2006 alone.

Although these are exceptional circumstances requiring up-front investments, there are things that can be done quickly and easily with little cost or effort. These 'nuggets' are things that produce disproportionate savings. By looking closely at them, it is often possible to adapt them to fit other applications in an unrelated area. That is great leverage!

The challenge is to spot savings opportunities that will reveal “Best Practice” solutions to which discipline can be applied to deploy it further and drive the project through to the end. A systematic process to going Green - such as the Green Value Stream approach – not only enables opportunities for savings to be spotted - but also can reveal the step-by-step instructions needed to realize these savings. Once harvested, these additional resources can be used to support, expand, implement, and increasingly sustain the corporate Green transformation.

2.0 Increased Customer Loyalty and Attraction

With global competition now the norm, it is increasingly difficult to attract new customers and break into new markets. It is also difficult to keep the customers and market share we already have. By adopting Environmentally Sustainable practices the platform is being put in place upon which continuing success can be built and developed. Although measuring how many customers you have kept and attracted because of Green initiatives is not easy, it is well worth the effort to document them and their contributions. There is high value in spending as much effort on servicing your customers as is normally applied to suppliers. It is a well known fact that it costs five times as much to obtain a new customer as it does to keep an existing customer on board.

A February 2008 survey conducted by Cone Inc., in conjunction with the Boston College Center for Corporate Citizenship, confirms this claim. According to the 1,080 adults surveyed, 59 percent of them said they were concerned about the environmental impact of their consumption and that they were changing their buying habits to lessen the impact. Sixty-six percent of the respondents indicated that they actually consider the environmental impact of their purchases. And sixty-eight percent of those surveyed also said, that ***if the company had a strong reputation for environmental commitment, it positively influenced their decision to buy the product or service.***

In addition to this survey, Cone Inc. conducted a survey of Millennials, those born between 1979 and 2001, to find that this group had even stronger opinions in support of the above claim. ***This survey found that 83 percent of Millennials trust a company more if it is environmentally responsible.*** Sixty-nine percent consider a company’s social and environmental commitment when deciding where to shop. Eighty-nine percent will switch from one brand to another if the second is associated with a good cause, and 74 percent will pay more attention to a company’s message if the company has a deep commitment to a cause.

What does all this mean?

Well, it means that if a company is going Green, and continues to be committed to going Green, they will have a much better chance of keeping existing customers and attracting new customers away from its competitors who have yet to embrace this change towards a greener way of operating.

3.0 Increased Employee Retention and Attraction

We all know the importance of keeping and attracting good employees – from a development and growth aspect as well as from the cost aspect that relates to hiring, maintaining and retraining etc. It is no surprise that global competition not only jeopardizes the customer base, it also presents a risk to the ability to keep and attract good employees. Focusing on Green or Environmental Sustainability issues caused by the organization will help to address this challenge, since employees will stay longer with a company they believe has treated them well and fairly.

Of the 28 percent of respondents from Cone Inc.’s Millennia survey (discussed previously) who worked full time, 79 percent of them said that they wanted to work for a company that cares about how it impacts or contributes to society. Sixty-four percent said that their company’s social and environmental activities make them feel loyal to their company – ***and an astonishing 68 percent said that they would refuse to work for a company that is not socially and environmentally responsible.***

It is no secret that there is a current and projected shortage of skilled workers in North America's manufacturing industry and considering that these Millennials are the people who are going to take over for the aging baby boomers, this is important information.

The results are clear. If it is the company's intent to keep good employees **and attract the best and brightest employees...** it will be essential to consider going Green – and rapidly – to avoid being bypassed by competitors who have already taken that step.

4.0 Ability to Grow

The "Ability to Grow" refers to the increasingly challenging ability to lead, develop, and support an increase in the size of a business based on the shrinking talent pool and the increasing demand for natural resources. For example, if a company's products are petroleum based, such as plastics, the efforts to cut costs will be dependent upon the ability to cope with the pricing of the commodity. In brief, the efforts to cut costs will be thwarted by increases in petroleum prices over which you have no control.

On the other hand, if a company is focused on the environmental impacts of their products, they will pursue, and find, environmentally friendly alternatives. In some cases this can help eliminate the inevitable material cost increases for the remainder of the products' life. If a recycling mindset exists, the recovered materials can be used again – that is even better!

Another example involves operations that are energy intensive. Focusing continually on energy conservation while supporting alternative clean energy sources will help hold the line on increasing energy costs.

Focusing on improving the company's environmental impact will see energy reduction ideas flow from staff to help ensure the right energy decisions are continually being made. Harvesting materials or natural resources faster than they are regenerating, or using materials that are not capable of being regenerated, will at some point inhibit growth and production is curtailed. For all these reasons, it is imperative that in order for a business to sustain growth it must start the journey toward Environmental Sustainability before it's too late, and in its planning, all elements of the supply chain must be considered.

5.0 Innovation and Development of New Technologies

With a focus on going Green, as with Lean, continuous improvement will be a constant concern and emphasis – it becomes a part of everyday life. Innovation will be stressed as the challenge turns to how things can be done differently and better in order to reduce environmental impacts. By constantly striving to do things better, innovation becomes critical to success. By committing to Lean and Green practices, tools and thinking process innovation will become a high priority. Lean will be one of the strongest allies and combined with going Green, will drive innovation. It is no secret that innovation is a key factor in the success of any organization because it allows a company to reduce costs, reduce lead times, and increase capacity – all elements that the customer will value.

Being innovative means developing the ability to do things differently. This requires the implementation of Lean thinking and a no-blame environment that is based on respect and process thinking. These ingredients combined with open communication, Lean leadership, and meaningful employee involvement will provide the ownership by staff that will flow direct cost savings and the other benefits of going Green. By-products include productivity, reduced lead times, and increased capacity, which lead to more savings, benefits and true value for customers. For example, using less materials leads to less processing, resulting in reduced process costs. If less transportation is involved this too will contribute to reduced lead times – and, there is less garbage to move and deal with, there will be more time to build product and speed it to the customer.

Focusing on Green and Lean will rapidly have staff looking outside of the four walls to see firsthand how they can help customers reduce their environmental impact through the use of the company's products and services. Focusing on this further encourages innovative but this time the innovation may

lead to the development of new technologies that existing customers may want, that in turn can help them reduce their environmental footprint. It is easy to see how going Green drives process improvement and the development of new technologies.

The market for new Green technologies both on a business-to-business and business-to-consumer level is growing exponentially and will only continue to grow as the world looks for ways to lessen environmental impact. By being focused on Green, drives the development of new and Greener technologies, allowing it to offer solutions customers looking for, ensuring the ability to meet the customer demand - now and in the future.

6.0 Increased Profit and Shareholder Value

As the above five categories have shown, going Green allows a company to **realize savings and increase profits beyond original projections**.

While specific transformations vary, by going Green it is not unusual for companies to increase their profits by 35 percent or more – often in less than five years. Interesting research has been done by Bob Willard, an internationally renowned leader in sustainability strategies. He has authored numerous books regarding business cases for Environmental Sustainability and has implemented many real-life solutions over his 34-year career at IBM. His research shows that typically, a large enterprise can yield profits in the order of 38 percent within five years. Willard's research has also showed that smaller enterprises can yield even higher numbers with some achieving over 50 percent.

This increase in profit typically comes from the growth of a continuous improvement culture, the discipline of committing to proven process, **attracting better and more productive employees**, the reduction/reuse of material use and in operating costs.

The amount of success will be depend upon the degree to which every employee is involved and aligned with the overall vision and business objectives laid out by management. Another contributor will be the increased revenues from new and existing customers who remain loyal.

Evidence of success comes not only from research studies, but also from cold, hard financial results that are subject to audit – especially from companies listed in the Dow Jones Sustainability Index (DJSI). This index tracks the financial performance of the leading sustainability-driven companies throughout the world that consistently outperform the rest of the market. In the eyes of the shareholder, this is the value investors are seeking.

7.0 Conclusion...

As this White Paper has attempted to show, there is a strong business case for including Environmental Sustainability in one's vision – in other words, "going Green".

The White Paper describes the thinking behind the paradigm shift to going Green and the increased business and profit it can generate. Like any change, or paradigm shift, there will be those who embrace it and those who resist it. Knowing the reasons for making the change towards a greener way of being, as seen in the business case, and then having a proven, systematic approach to going Green, like the Green Value Stream approach, provides the support needed to begin this change.

Embracing the change early will reserve an organization's seat as a profitable leader in the increasingly global movement towards Environmental Sustainability.