

The Path to a Sustainable Enterprise

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Following the path to a *Sustainable Enterprise* is the only long-term strategy that provides the capacity to endure in today’s complex and changing marketplace. The United Nations defines sustainability as development that meets the needs of the current generations without compromising the ability of future generations to meet their own needs. Sustainability requires the delicate balance of economic, social and environmental values and can be described as the optimization of these dimensions.

The forest products industry and those manufacturers that rely on the forest’s natural fiber as raw materials have a unique opportunity to enhance sustainability by acknowledging their integral place in the fiber value chain through responsible sourcing and striving to minimize the impacts of their processes and products on the environment.

The Three Dimensions of Sustainability

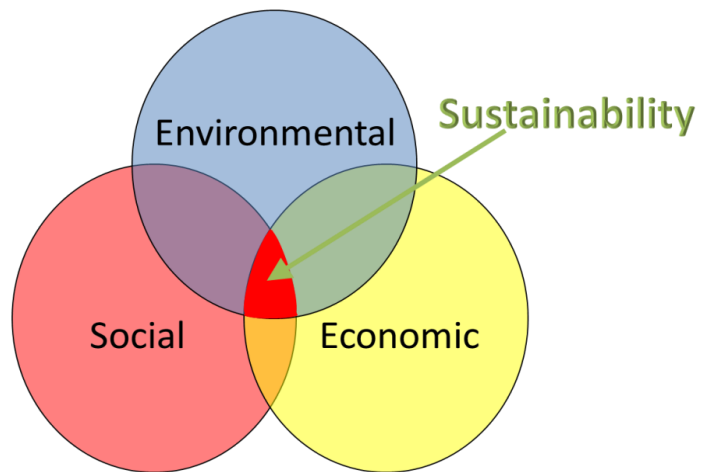


Figure 1 Three Dimensions of Sustainability

Business Case for the Sustainable Enterprise

The business case for sustainability is well understood and documented in business journals for the past 20 years. The core values of truly sustainable organizations have significant influence on other key performance metrics that provide competitive advantage to these organizations. Reducing costs through improved energy efficiency or waste reduction increases profits and improves the environmental performance of the operation. Sustainability initiatives provide a platform for innovation as employees look to improve and transform business practices and operating strategies. Capital investment in projects that support sustainability objectives will often provide complimentary financial benefits.

Sustainable Enterprises discover that optimizing the balance with the social, economic and environmental values increases employee motivation and retention as the employees feel connected to the company’s objectives. Improved company image and branding are enhanced through improvements in sustainability performance. “Doing the right thing” leads to risk mitigation in operations compliance and the marketplace.

Key Elements of the Sustainable Enterprise

Sustainable Enterprises in the forest sector and related manufacturing industries can be defined by 10 key elements that are incorporated into their sustainability strategy (see Figure 2).



Figure 2 Key Elements of a Sustainable Enterprise

Collaboration with Forest Industry Stakeholders

Becoming a *Sustainable Enterprise* is a continuous path that involves collaboration with stakeholders to adapt to the evolving understanding and expectations of society. *Sustainable Enterprises* understand that open and transparent dialogue with stakeholders is necessary to achieve the delicate balance of environmental, social and economic values. Active collaboration requires commitment to engage stakeholders in defining the evolving expectations of sustainability. Engagement with the relevant stakeholders (Figure 3) helps ensure these values are understood from the stakeholders perspective to



Figure 3 Stakeholders of the Forest Industry

help shape the organization’s sustainability strategies. More and more businesses are realizing that it is important to listen to their key audiences to determine market opportunities, manage risks and help innovate their products and services.

Governments and regulatory authorities are key stakeholders that can have a large impact on the forest industry and the related manufacturing sector. Regular engagement is necessary to ensure consistent policies related to climate change, energy and forestry are jointly developed to balance the three sustainability values. Strong representation in industry associations such as the American Forest & Paper Association and the Forest Products of Canada is necessary to support this direct engagement with government.

Responsible Sourcing

Responsible sourcing is a voluntary commitment by companies to take into account social and environmental considerations when managing their relationships with suppliers. Responsible sourcing of products and services that are required to manufacture pulp, paper and related specialty products requires an understanding of sustainability criteria. Customers need to have the confidence they are sourcing products that are manufactured responsibly. Companies are not only responsible for ensuring their manufacturing process is environmentally friendly and socially responsible but also must ensure that their products are manufactured responsibly through their entire lifecycle. Monitoring the supply chain can be complex and requires a long-term commitment. This strategy is now an integral part of effective supply chain management. Your reputation and brand are strengthened when each partner in the supply chain practices environmental and social responsibility according to criteria that match your objectives. Sustainable supply chain management built around ethical and environmental sourcing principles leverages your purchasing power to mitigate supply chain risks, reinforce long-term supplier relationships, and build stakeholder and customer trust. The three key requirements for responsible sourcing in the forest products and related industry are forest certification, Supplier Sustainability Surveys and the adoption of a Supplier Code of Conduct.



Figure 4 Responsible Sourcing

Forest Certification

The sustainability question with fiber suppliers starts with Forestry Certification. After nearly 20 years, forest certification has matured and is clearly a positive influence on our forests and our planet. Certification is now an expected standard in the North American and European forest industries.

The three major recognized certification systems are the Sustainable Forestry Initiative (SFI), Forest Stewardship Council (FSC) and Programme for Endorsement of Forest Certification (PEFC). All systems



Figure 5 Forest Certification Systems

have essentially the same goal: to promote environmentally, socially, and economically sustainable forest practices. Certification means that companies follow progressive social and environmental forest management practices, as assessed by an independent third body. This includes prompt regeneration of the forest land, sustainable harvest levels, aboriginal engagement, and protection of biodiversity and wildlife habitats. Their robust standard is the primary tool used by independent auditors to ensure that North American supply chains source fiber responsibly and in accordance with objectives and practice requirements to protect, conserve and advance social and environmental values.

The United States and Canada have led the world in forest certification. The latest statistics show that Canada has more than 160 million hectares and now makes up 43 per cent of the world's independently certified forests.

Certification in the Global Context

2014 Year-end

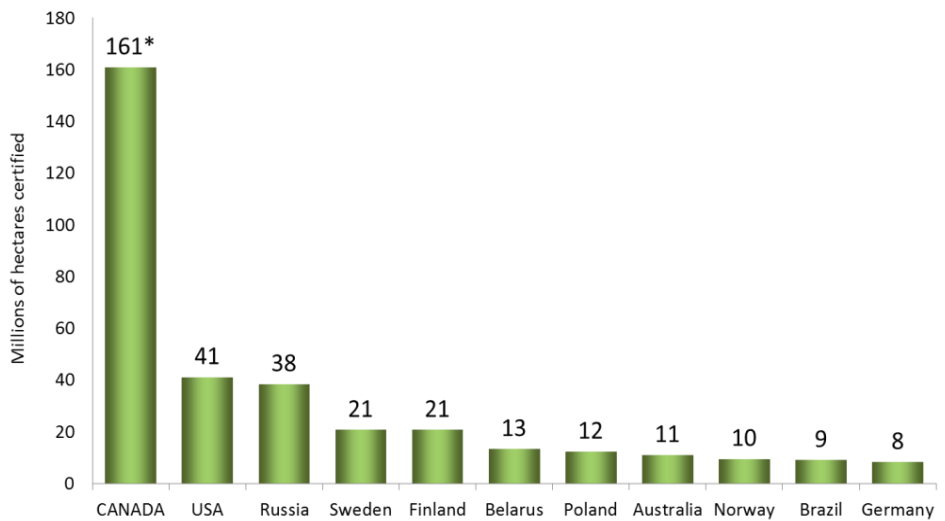


Figure 6 Certified Forests by Country [1], [2] and [3]

Sources: www.certificationcanada.org as of Dec 31/14
www.fsc.org as of Nov28/14
www.pefc.org as of Nov10/14

Too much effort is wasted on arguing about which certification

scheme is better than the other as it would be impossible for a professional forester or biologist to tour a certified forest and determine which of the three systems was used by the independent auditors to assess the forest management practices and long-term sustainability of the forest. Our global forests would benefit from a real effort by consumers and NGO's to push forest companies to increase the percentage of the world's forests that are certified. The percentage of global forests that are certified to one of the three recognized standards is less than 12% in 2014.

The formal forest certification auditing process requires sustainable harvesting levels and incorporates the protection of high conservation value areas and biodiversity. Forest management practices in certified forests must ensure the long term sustainability of these aspects and demands reforestation within strict time frames.

Legal Fiber Sources - The independent auditing process of forest certification also ensures customers receive fiber from legal sources. This factor is taken for granted in the United States and Canada but continues to be a major global challenge. Figure 6 reveals the current situation in many developing countries where lack of enforcement and corruption has led to poor forest management and damaging social implications from illegal logging. When customers demand fiber that is certified to one of three recognized certification systems they are helping the forest

management practices in these regions as the growing markets for certified fiber will motivate the necessary transformations. Forest certification systems have recently incorporated the requirements of legislation in Europe, United States and Australia to prohibit sourcing wood from illegal harvesting to further strengthen the customers need to ensure compliance.

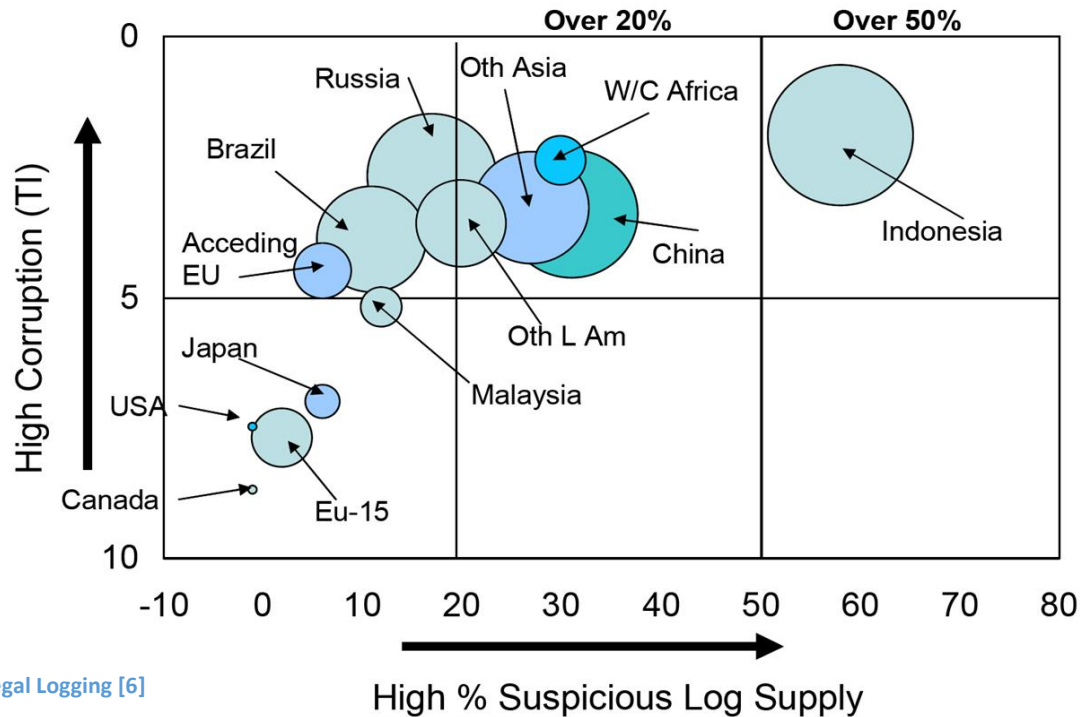


Figure 7 Risk of Illegal Logging [6]

-Source: Wood Resources International, Transparency International

About 15 percent of the trillion dollar global wood products trade involves illegally harvested wood, mostly from tropical forests. In the countries where this wood originates, forests, communities and economies are being negatively impacted by unsustainable harvesting methods.

The biggest impact in North America is the competition this trade creates for legally harvested, certified wood. Illegally harvested forest products are generally a lot cheaper and that results in unfair competition for the domestic market. Certification by one of the recognized systems is insurance for the buyer that the wood is legally harvested.

Chain of Custody Certification – The 3 recognized forest certification systems have incorporated Chain of Custody (CoC) certification provisions to support customer’s assurance to enable them to confirm that an unbroken chain connects a finished product back to a sustainably managed forest. This approach is an excellent tool for promoting sustainable forestry. Manufacturers that use fiber but don’t manage forests directly can certify the facilities under the Forest Certification Chain of Custody process that ensures full traceability of the origin of the wood worldwide. From the forest to the consumer, the integrity of the chain is verified through an independent third-party audit.

Supplier Sustainability Surveys

A growing trend with the companies that source pulp fiber is the development of annual supplier surveys that request detailed information on manufacturing impacts and fiber sourcing. Several companies are engaging web-based firms to collect and collate sustainability data to help manage the supplier data and track year to year improvements. Leading pulp and paper companies will also provide Environmental Product Declarations that provide these customers with the necessary information to assess carbon footprint, energy intensity, forest certification statistics, Eco-Label qualifications and legal wood sourcing confirmation.

Supplier Code of Conduct

The development of a supplier Code of Conduct that articulates the commitment to a sustainable supply chain is an important step to responsible sourcing. The code of conduct defines the supplier's compliance requirements in terms of responsibilities with regards to environmental impact, human rights, labor practices, product safety and health and safety. Companies should incorporate all the fundamental principles into their business requirements and emphasize that the suppliers are responsible for meeting these requirements with their 1st and 2nd tier suppliers. Supplier accountability should be articulated. Each supplier should be expected to acknowledge their understanding and compliance with the Supplier Code of Conduct.

Fundamental Principles of a Supplier Code of Conduct



Global supply chains can be complex and challenging to monitor. Reviewing these fundamental principles with suppliers and holding them accountable to following the code of conduct will support the social changes that are required in business conduct and provide risk mitigation to supply chain related issues.

Leading Environmental Performance

The path to a Sustainable Enterprises is based on continuous improvement of environmental performance of both the products and the operating metrics. The key environmental parameters for a manufacturing plant that should be measured and tracked are shown in Figure 8. These performance metrics should be benchmarked against top performers to identify opportunities for improved performance. Although compliance to regulatory requirements for all parameters is the minimum commitment, organizations need to establish goals and initiatives in their strategic planning processes to achieve the continuous improvement of environmental metrics. The desire to minimize the environmental impacts helps drive organization improvements, capital decision making and operating strategies to improve environmental performance. A Sustainable Enterprise places a high priority on minimizing environmental impacts and establishes Key Performance Indicators to ensure these metrics receive the appropriate management attention in the organization. Leading environmental performance will lead to better business success as customers shift to suppliers with the lowest environmental impact.

A growing trend is for companies to establish their own product stewardship programs through Life-Cycle Analysis (LCA's). LCA's take a holistic cradle-to-grave approach. The lifecycle results are then used to improve the overall eco-efficiency of the manufacturing facility or product. LCA based thinking is now quite common from many sectors including automobiles (BMW), industrial products (3M) and consumer products (P&G).

Eco-labeling programs for low GHG emissions intensity, renewable energy usage and forest certification can play important roles in paper, tissue, packaging and specialty markets where consumers want to have the choice to purchase more sustainable products. Suppliers with leading environmental performance in their products can support qualification of the final customer's products to the respective eco-label program.

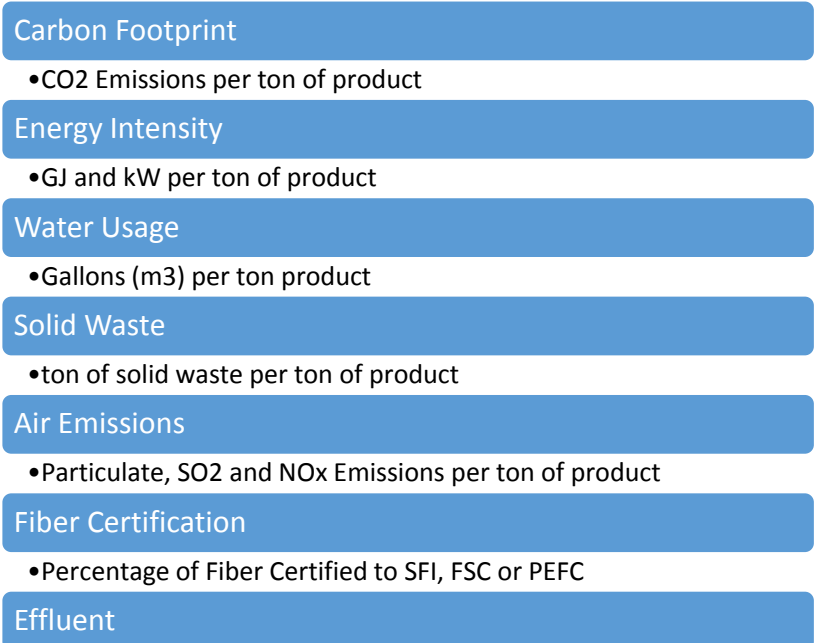


Figure 8 Environmental Parameters for Manufacturing Operations



Figure 9 Eco-Labeling Systems

Future Oriented Partner with Suppliers

Sustainable organizations build strong long-term relationships with suppliers and take a future oriented perspective. Collaboration with suppliers can lead to adoption of best practices to improve operating efficiencies and product development to further enhance the sustainability of their product life cycle. Collaboration with suppliers to minimize environmental impact in the supply chain is a core value of a Sustainable Enterprise. Collaboration between pulp suppliers and customer can lead to a better understanding of how product specifications can impact fiber efficiency, water usage, effluent parameters, chemical consumption and energy usage. The optimized product specification can also reduce production costs and enhance the value proposition. Packaging optimization can also bring benefits that include minimizing materials and reducing product damage.

Engagement with NGO's

Leading companies who actively engage with NGO's gain a more comprehensive understanding of how to improve their business practices to enhance sustainability. Engagement with relevant NGO's provides better understanding of social and environmental values. This engagement also allows NGO's to better understand the economic priorities and challenges. These discussions often lead to better overall solutions.

NGO's have provided a positive force for change in the forest sector and have helped influence improvements for sustainable forest management practices and social values. NGO's can be effective at identifying High Conservation Value areas and potential impacts on biodiversity from harvesting activities.

ENGO's can be a powerful force for identifying changes that are needed as they are not confined by policy. When solutions are being worked on there are very real incentives for all parties to remain engaged. Durable and long-term solutions require broad-based support and ENGO's are an essential component of these solutions.

The Canadian Boreal Forest Agreement (CBFA) is an excellent example of ENGO's engagement and the positive results this collaboration can achieve. The CFBA sets a global precedent for the integration of economic and environmental values to ensure a sustainable future for the Canadian boreal forest, natural habitat, forestry industry and all those whose livelihoods rely upon it. Current signatories to the CBFA include the Forestry Products Association of Canada (FPAC), its 18 member companies, Kruger Inc., and seven leading Canadian ENGO's.

Engagement of Workforce

A key social value of sustainability is the organization's desire to engage their workforce. Striving to develop a socially sustainable organization requires a deliberate intention to be an employer of choice that can offer secure employment. Companies that embrace sustainability quickly discover that employee innovation is also enhanced as employees evaluate improvement opportunities and change business practices. A socially sustainable enterprise understands that the demands for skilled labor and

economic resources will increase in our society and these companies must respond to the scarcity by engaging their workforce. Employee development and training and increased motivation build the capacity of the organization that is required to remain successful in the marketplace.

A key indicator of a socially sustainable enterprise is the visible focus on the training and development of their employees.

Leadership in Safety Culture and Performance

A key component of social sustainability is a strong emphasis on workplace health and safety. Companies that are passionate about safety and have developed the safety culture to achieve leading safety performance will benefit from increased employee engagement and improved business performance. Investment in providing employees with education and encouragement to embrace healthier lifestyles also provide well proven benefits in terms of employee productivity, attendance and loyalty.

Strong and Reliable Community Member

Commitment to the sustainable industry brings social strength to the communities in which we operate. A socially responsible business develops and maintains strong and mutually beneficial relationships with its community. Companies that actively work to support community goals wherever they do business realize the value of this important connection through enhanced recruitment, employee loyalty, community support and good will. Supporting non-profit societies, community centers and scholarships all demonstrate important social values of a sustainable enterprise. Sustainable Enterprises work hard within their communities to earn the social license to operate. Proactive collaboration with your community can help solve problems and foster social partnerships to contribute to the community quality of life.

A consistent attribute of Sustainable Enterprises is their involvement in education partnerships to build the capacity of their employees, potential new employees and the community. The investment in trades apprenticeships, co-op positions, research grants and support for academic and training initiatives lead to stronger communities.

Companies that are making restructuring decisions must ensure they take a responsible approach to minimize the impact on the changes. Companies need to evaluate and support local suppliers to enhance the local economy as part of their procurement decisions.

Reliable Partner to Customers

Ensuring the economic pillar of sustainability is strong and resilient forms part of the important balance with the social and environmental values. Customers that are evaluating suppliers want to deal with financially stable and reliable partners that can deliver consistent quality and service. Economic viability is a key part of being sustainable. The viability helps ensure your organization will remain a supplier customers can rely on, continue to improve environmental performance and re-invest for the future. Commitment to the sustainable industry brings economic strength to the shareholders. The

economic dimension of sustainability is also necessary to ensure the quality of employment and a secure corporate presence in the community.

The Growing Demand for Fiber is Protecting our Forests

A common fallacy of a segment of the conservationists is that using fiber from forests will result in the destruction of our forests. The science and the facts have shown otherwise. Deforestation means the permanent or long-term conversion of forest lands to other land uses due to urban expansion, industrial development, resource extraction or agricultural development. The expansion of agriculture is the most significant cause of deforestation worldwide.

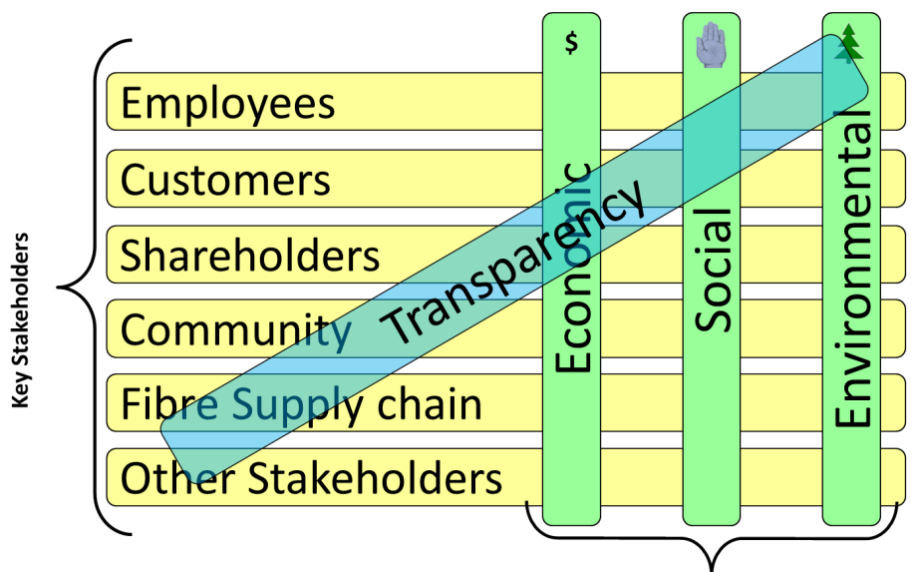
In North America we grow many more trees than we harvest. In the U.S., between 1953 and 2012, the net area occupied by forests increased from about 300 to 310 million hectares and the net volume of growing stock (which takes into account the number of trees and their size) rose about 60%. [2] In Canada forest area remained stable over the last two decades at about 350 million hectares and less than 0.5% of the resource is harvested annually [3]. Besides being the world leader in certification, a Yale University study has found that Canada's forestry regulations and laws are among the most stringent in the world. By law, all harvested trees are regrown, ensuring forest resources will be there for future generations. Canada actually has virtually zero deforestation, with a rate of 0.02 per cent each year.

Forest products provide the incentive for forest owners to keep the land as forests. Landowners receive income from the trees grown on their land which is an important incentive to maintain, sustainably manage and renew this valuable resource. This is particularly important where land owners are facing economic pressure to convert forestland to non-forest uses such as residential housing. Continued use of paper and other wood based products will be a key factor in maintaining a forested landscape for future generations.

Products made from wood fiber have many inherent advantages when viewed from an environmental perspective. It can be renewable, recyclable, biodegradable and carbon neutral. Fiber based products have the potential to be one of the few truly sustainable products.

Summary

The Sustainable Enterprise is a journey that balances the social, economic and environmental values to achieve long-term success. Manufacturers that rely on wood fiber as a key raw material have a distinct advantage in embracing sustainability as a key business strategy as fiber based products have many inherent environmental advantages. Sustainability begins



with building a responsible supply chain through forest certification and ethical sourcing. Continuous improvement of environmental performance from both a product perspective and a manufacturing process leverages the innovation needed to enhance sustainability and results in improved competitiveness and market position. Collaborative relationships with customer and suppliers makes companies stronger and can result in more sustainable outcomes.

At a macro level, all industries are expected to demonstrate great environmental awareness and product stewardship. Committed engagement with relevant stakeholders provides the necessary understanding of sustainability issues and helps organizations adapt the business strategies to ensure long-term viability.

Literature Citations

[1]. <http://www.certificationcanada.org>

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[6] World Resource International and Transparency International