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TABLE RONDE NATIONALE SUR L'ENVIRONNEMENT ET L'ÉCONOMIE

NRT Life Cycle Approaches (LCAs) Project
LCAs in the Private Sector

About the Project

The NRT has been asked by the Minister of Environment to assess how the Government of Canada (GoC) could support the uptake of Life Cycle Approaches (LCAs) to enhance Canada's economic competitiveness and environmental stewardship.

The NRT is exploring two main lines of research on how LCA's can be utilized – (1) within the Government's internal operations and decision making processes; and, (2) in large corporations and SMEs in the private sector. The NRT aims to develop a role profile for the GoC with respect to supporting the potential uptake of LCAs in Canada as a public sector adopter internally, and an enabler externally for the private sector (see figure 1).

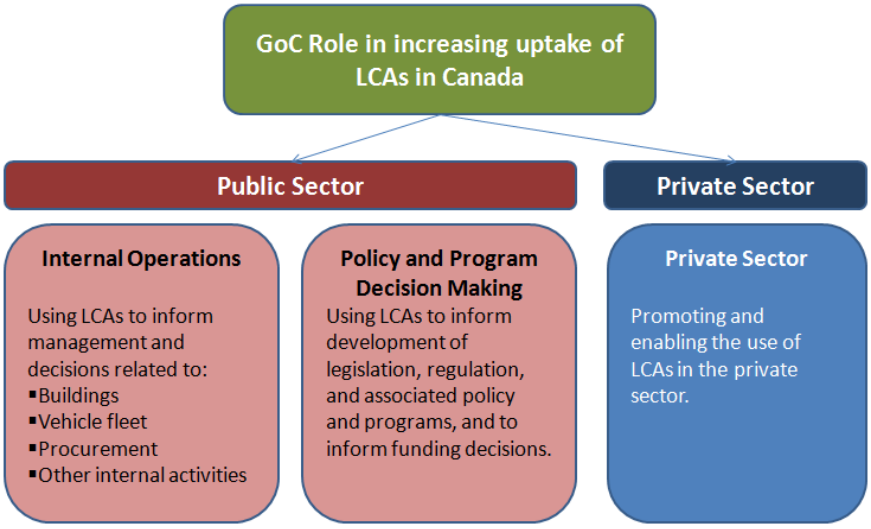

Figure 1. Role of GoC in LCAs

NRT LCAs Project Objectives

The focus of the November 29th convening session is to discuss the NRT's preliminary research findings on LCAs with private sector representatives from both raw material and end-user product sectors across the country. It is also an opportunity for the NRT to solicit input to inform future research and further develop and refine our findings to date. This will be done by discussing identified risks, opportunities and barriers related to the uptake of LCAs in the private sector.

Using LCAs within the Private Sector – The Methodology Used to Assess Risks and Opportunities

Key risks from not adopting life cycle approaches in the Canadian private sector were identified in this project, along with the opportunities that might arise from increasing the use of life cycle approaches. Identifying risks and opportunities enables the GoC to understand the underlying mechanisms that encourage life-cycle thinking. It is these mechanisms that provide leverage points against which specific policies and programs can be applied to further encourage the uptake of life cycle approaches. We assessed the economic and environmental implications of each risk and opportunity, and also evaluated the importance of each risk and opportunity. As well, we identified which risks and opportunities are most relevant to raw materials industries and end-use product manufacturers and retailers.

Highlights of Findings – Key Risks

Preliminary findings indicate that companies that do not adopt life-cycle approaches will be **unable to meet the demand for information** and data on the life-cycle on their products from downstream industrial or commercial customers along the supply chain, and will potentially be unable to meet future demands of end-use consumers, government, or non-governmental organization (NGO) customers. In addition, companies that lack life-cycle information could face **challenges in identifying process or supply chain inefficiencies**. It is possible that actions to reduce emissions, improve process efficiency, or recover materials may actually increase environmental impacts by shifting the burden of one type of environmental impact to another, or across life-cycle stages. Without life-cycle information to guide their decision-making, companies may focus on the wrong areas, leading to an inefficient allocation of investments in new technologies. The risk that companies **will not be prepared for government regulations** that are based on life-cycle approaches has significant economic implications and was also identified as important. Lastly, since life-cycle approaches are increasingly becoming mainstream, there is a risk of missing the "bandwagon" from a sustainability perspective and being left out of stakeholder engagement processes if companies fail to come up to speed on life-cycle approaches.

Highlights of Findings – Key Opportunities

Life-cycle approaches enable companies to **identify hotspots**, **processes inefficiencies**, and **improvements in their own operations**, or in **upstream and downstream processes** along the supply chain. The economic implications of this opportunity include cost savings, improved product quality, and improved process reliability. The opportunity for improvements across the supply chain is high since companies are only beginning to reach out and engage with their supply chains, and because life cycle-approaches are uniquely suited to identifying hotspots along the entire supply chain. Related opportunities from companies engaging with their suppliers are **better relationships** and understanding of the supply chain, and **improved risk management**. By understanding their supply chain, retailers and other manufacturers gain an understanding of economic and environmental risks in terms of reliability risks, supply chain efficiency, air pollution and GHG emissions, as well as material consumption and use of chemical substances of concern along the supply chain. This information can help downstream companies work with suppliers to reduce or eliminate environmentally harmful substances from their products, as well as increase supply chain reliability. Finally, companies use the outcomes of life cycle-based activities to **market** their efforts to end users. Marketing has strong economic implications in terms of **better customer retention** and an **enhanced ability to distinguish products from competitors**. Increasingly, there is a need for **credible, scientific data** to support marketing claims.

Highlights of Findings – Key Barriers

One of the most critical barriers faced by the private sector is the **high level of capital investment** (whether perceived or actual) that may be required to apply life-cycle approaches. This barrier ranks high for small and medium enterprises (SMEs) that may have more limited resources including both funds and staff to dedicate to life-cycle assessment or management. Two key informational barriers that further impede the uptake of life-cycle approaches include **lack of awareness** of business benefits and **lack of necessary life-cycle data**. Companies within both raw material and end-use product sectors face many common barriers while also facing certain distinct obstacles. For instance, lack of awareness of business benefits, lack of demand in the market, and fear of greenwashing are more significant issues for companies within the end-use product sector that are consumer-facing and seek positive feedback from the marketplace from their sustainability investments. Other barriers, such as reluctance to collaborate on data development, lack of harmonization, and logistical limitations present greater challenges to companies within the raw material sectors. The need for solutions that help facilitate increased information sharing on the benefits of life cycle approaches and guidance, increased collaboration in data gathering and analysis, and provision of other financial incentives to further advance private sector life-cycle approaches are key to addressing these barriers. Government can play an important role in helping to reduce or mitigate these barriers beginning in the near term. In addition, leaders within the private sector, industry associations, NGOs, consultancies, and consumers also have roles to play. Complementary and collaborative efforts between these various actors will likely lead to the greatest success in overcoming the barriers.