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NB SME INTERNATIONAL EXPORT COMPETITIVENESS

Navigating Clean Energy Considerations in Global Trade

Presented by SGIN

SGIN Energy Leadership Series

The SGIN Energy Leadership Series delivers accessible understandings concerning our continuing need to drive clean energy implementation and at and at scale. In this series our industry network of leaders share insights and understandings as to the major issues we face and break down the myths and noise that can be barriers to achieving clean beneficial energy for our subsequent generations.

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Introduction

In an increasingly globalized economy, New Brunswick's small and medium-sized enterprises (SMEs) face both opportunities and challenges in the international export market. As the world grapples with the urgent need to address climate change, these SMEs must adapt to evolving environmental standards and carbon policies to remain competitive. This paper examines the current landscape of international trade agreements, carbon footprint management practices, smart energy solutions, and support programs available to Canadian SME exporters, with a focus on how New Brunswick companies can position themselves for success in this changing environment.

The Canada-European Union Comprehensive Economic and Trade Agreement (CETA) and the Canada-United States-Mexico Agreement (CUSMA/USMCA) serve as critical frameworks for New Brunswick's international trade. While these agreements do not directly regulate carbon emissions or smart energy solutions, they set the stage for increased environmental considerations in trade practices. As we delve into the specifics of these agreements and their implications, it becomes clear that proactive carbon management is no longer just an environmental imperative but a key factor in maintaining and enhancing export competitiveness.

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Carbon Considerations in CETA and CUSMA/USMCA

Environmental Provisions in CETA

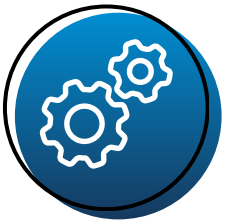
CETA's Chapter 24 focuses on Trade and Environment, emphasizing each party's right to set its own environmental priorities while committing to enforcing environmental laws effectively.

Environmental Provisions in CUSMA/USMCA

The environmental chapter in CUSMA/USMCA highlights the importance of maintaining high levels of environmental protection and addresses specific issues such as air quality and marine pollution.

Cooperation on Climate Change

Both agreements encourage collaboration on climate change and transitioning to low-carbon economies, presenting opportunities for SMEs in clean technology and environmental services.



Emerging Carbon Pricing Mechanisms

As countries align policies with trade agreements, SMEs may encounter new regulations, including carbon pricing mechanisms, which could influence their competitiveness.

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Carbon Considerations in CETA and CUSMA/USMCA

Pressure on SMEs

New Brunswick SMEs may face increasing market pressure to adopt low-carbon practices, particularly from environmentally conscious markets like the EU. Larger companies striving to meet carbon reduction targets could also require compliance from SME suppliers.

Trends in Carbon Reporting

While standardized carbon footprint measurement is not currently mandated by these agreements, voluntary frameworks like the Greenhouse Gas Protocol and CDP are gaining traction. Some jurisdictions already require mandatory reporting for larger emitters.

Proactive Carbon Management

Forward-thinking SMEs are encouraged to begin measuring and managing their carbon footprints to stay ahead of regulatory and market demands, ensuring long-term sustainability and competitiveness.

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Carbon Footprint Management for SMEs

Current Practices and Future Trends

Importance of Carbon Footprint Management

For New Brunswick SMEs aiming to enhance export competitiveness, understanding and implementing effective carbon footprint management is essential. The process involves defining boundaries, identifying emission sources, collecting activity data, applying emission factors, calculating emissions, and verifying and reporting results.

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Tools and Standards for Carbon Accounting

SMEs can utilize frameworks like the Greenhouse Gas Protocol for comprehensive carbon accounting or ISO 14064-1 for guidance on quantifying and reporting emissions. For beginners, tools like the Carbon Trust's SME Carbon Footprint Calculator offer accessible entry points.

Strategies for Reducing Carbon Footprints

Once a baseline is established, SMEs can adopt strategies such as energy efficiency improvements (e.g., upgrading to LED lighting or optimizing HVAC systems) and renewable energy adoption through solar panels or renewable energy credits.

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Sustainable Transportation and Waste Reduction

Initiatives like transitioning to electric vehicles, implementing remote work policies, and waste reduction programs not only lower emissions but can also reduce costs. Sustainable procurement and employee engagement programs further enhance reduction efforts.

Current Norms and Benchmarks

Carbon footprint benchmarks vary by industry and company size. Common metrics include absolute emissions (in tonnes of CO_2 equivalent) and emissions intensity ratios, such as emissions per employee or unit of revenue. Service-based SMEs typically emit 2-5 tCO_2e per employee annually, while manufacturing SMEs may emit 10-50 tCO_2e per employee annually.

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Short-Term Trends (1-3 Years)

Voluntary reporting is expected to increase, alongside growing customer and investor demand for transparent carbon disclosures.

Medium-Term Trends (3-5 Years)

Trade agreements may incorporate more specific carbon provisions, and carbon pricing mechanisms could expand to include a broader range of businesses.

Long-Term Trends (5+ Years)

Mandatory carbon reporting may extend to businesses of all sizes. Carbon footprint considerations could become integral to trade qualifications, with stricter product-level carbon footprint requirements emerging. Staying ahead of these trends will be critical for New Brunswick SMEs to remain competitive in global markets.

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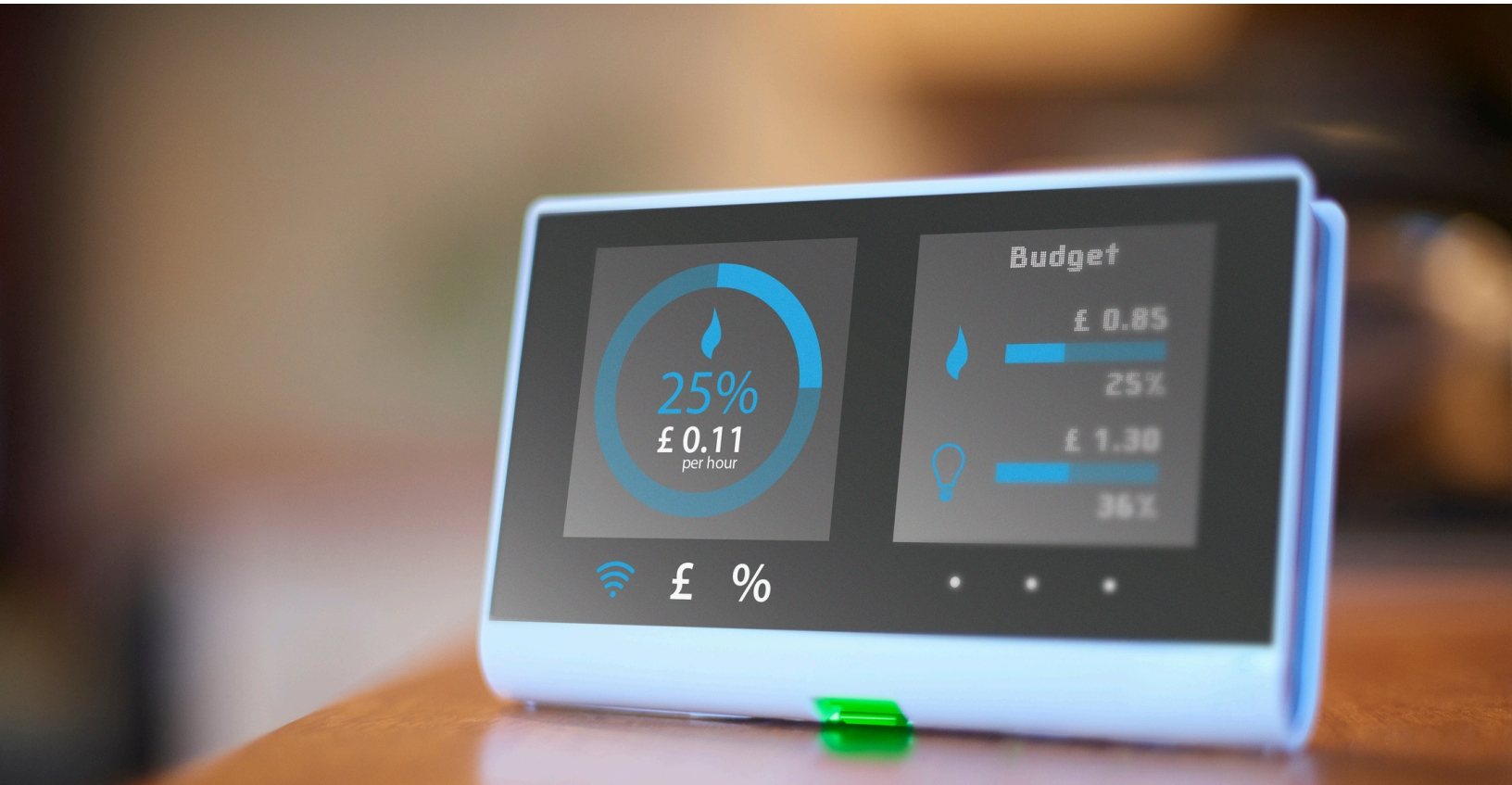
Smart Energy Applications for SME Exporters

Smart Energy Technologies and Competitiveness

Smart energy technologies offer SMEs innovative tools to optimize energy production, distribution, and consumption. By leveraging these systems, SMEs can lower carbon emissions, improve energy efficiency, and position themselves as leaders in sustainable business practices, significantly enhancing their export competitiveness.



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Smart Metering and Energy Management Systems

Smart metering systems provide real-time data, helping SMEs identify inefficiencies and reduce energy waste. These technologies enable cost-saving measures like shifting processes to off-peak hours and generate detailed reports for accurate carbon footprint calculations.

Integration of Renewable Energy Sources

Adopting renewable energy sources such as solar, wind, and biomass allows SMEs to lower their reliance on grid electricity while reducing carbon emissions. Smart energy systems streamline this integration, offering cost benefits and strengthening a company's green credentials in global markets.

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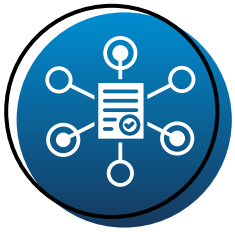

IIoT and Predictive Maintenance in Manufacturing

The Industrial Internet of Things (IIoT) and predictive maintenance tools help SMEs optimize equipment performance, reduce energy consumption, and lower maintenance costs. These advancements improve product quality and consistency, giving SMEs in energy-intensive industries a competitive edge internationally.

Smart Building Technologies for Energy Reduction

Automated lighting, smart thermostats, and energy-efficient LEDs are simple yet impactful solutions to reduce energy usage. These technologies minimize electricity consumption, lower operational costs, and contribute to carbon footprint reduction.

Electric Vehicles (EVs) and Sustainable Logistics

Integrating EVs into business operations can significantly reduce transportation emissions. Smart charging systems optimize electricity use and costs, while features like vehicle-to-grid technology provide energy storage and additional revenue opportunities.

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Blockchain for Energy and Carbon Management

Blockchain technologies enable transparent tracking of renewable energy use and carbon credits. These tools simplify participation in carbon credit markets and enhance compliance with international environmental standards, boosting SME credibility.

Long-Term Benefits

Smart energy adoption requires an upfront investment but delivers long-term benefits, including operational cost savings and increased appeal to sustainability-conscious customers. SMEs that adopt these technologies early will be better equipped for future market demands.

Positioning for Future Success

By integrating smart energy solutions, New Brunswick SMEs can stay ahead of global low-carbon trends, ensuring their competitiveness in evolving markets. This proactive approach is essential as international trade agreements introduce stricter environmental provisions.

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Support Programs for Canadian SME Exporters

Overview of SME Support Programs

Various support programs are available at federal, provincial, and industry-specific levels to assist Canadian SMEs in navigating international markets and environmental regulations. These programs provide financial assistance, advisory services, and resources to enhance global competitiveness.

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Provincial Support in New Brunswick

Organizations like LearnSphere, ExportNB, Opportunities NB, and the GNB Strategic Initiatives Fund offer tailored assistance for SMEs in the province, focusing on export readiness and market development.

CanExport Program

At the federal level, the CanExport Program provides financial assistance for international market development, helping SMEs access new opportunities abroad.

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Export Development Canada (EDC)

EDC offers a suite of products for exporters, including export insurance, working capital financing, and political risk insurance, addressing critical financial and operational needs.

Business Development Bank of Canada (BDC)

BDC supports SMEs with market expansion loans and international growth capital, alongside advisory services specifically designed for exporters aiming to scale their operations.

Trade Commissioner Service (TCS)

The TCS provides on-the-ground support in over 160 cities worldwide, delivering market intelligence, qualified contacts, and partnership opportunities to help SMEs succeed in diverse international markets.

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Industry-Specific Programs

Targeted initiatives like the AgriMarketing Program from Agriculture and Agri-Food Canada offer support tailored to key sectors, such as agriculture, which are particularly significant to New Brunswick's economy.

Non-Governmental Organizations

Canadian Manufacturers & Exporters (CME) and Chambers of Commerce provide additional resources, including networking, advocacy, and educational opportunities, to help SMEs thrive in the global marketplace.

Comprehensive Support for Exporters

By leveraging these programs, Canadian SMEs can mitigate challenges, access financial tools, and gain the expertise needed to expand and succeed in international markets.

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Recommendations for New Brunswick SMEs

As New Brunswick SMEs navigate the complex landscape of international export competitiveness and carbon management, several key recommendations emerge:

- Familiarize yourself with the climate requirements outlined in CETA and CUSMA/USMCA. While these agreements may not currently impose strict carbon regulations, understanding their environmental provisions will help you anticipate future trends and stay ahead of the curve.

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- Measure your company's carbon footprint using recognized standards and tools. This baseline assessment will provide valuable insights into your current environmental impact and identify areas for improvement.

- Get assistance to benchmark your carbon performance against others in your industry and size category globally. This comparison will help you understand your competitive position and set realistic improvement targets.

- Develop a target and action plan to achieve carbon competitiveness leveraging smart energy solutions within the next five years. This forward-looking approach will ensure that your business is well-positioned to meet evolving market demands and regulatory requirements.

- Explore and leverage the various federal, provincial, and industry-specific programs available to assist in decarbonization efforts. These programs can provide valuable financial and advisory support as you work to enhance your environmental performance and export competitiveness.

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By taking these proactive steps, New Brunswick SMEs can position themselves as leaders in sustainable international trade. As global markets increasingly prioritize low-carbon products and services, companies that have embraced robust carbon management practices will find themselves at a distinct competitive advantage. The journey towards carbon competitiveness may present challenges, but it also offers significant opportunities for innovation, cost savings, and market expansion.

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Conclusion

The intersection of international trade agreements, carbon management practices, and export competitiveness presents both challenges and opportunities for New Brunswick's SMEs. By staying informed about evolving requirements, measuring and managing their carbon footprints, and leveraging available support programs, these companies can not only maintain their position in global markets but also thrive as leaders in sustainable business practices. The future of international trade is undoubtedly green, and New Brunswick's SMEs have the potential to be at the forefront of this transformative movement.

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