

Green Horizons: Adapting, Competing, and Thriving in a Shifting Economy

Discovery Findings & Next Steps



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EXECUTIVE SUMMARY

The <u>Green Horizons</u> project supports New Brunswick's small and medium-sized enterprises (SMEs) in not only navigating the transition to a net-zero economy, but in also leveraging the opportunity in sustainability to enhance competitiveness. In this work, SMEs are defined as businesses with 1–499 employees.

SMEs represent the majority of businesses in the province. Facing intensifying climate impacts, fluctuating energy costs, evolving trade policies, labour shortages, and stricter environmental requirements, these firms must enhance resilience and competitiveness.

This project is being delivered by Pond-Deshpande Centre's (PDC) NouLAB in collaboration with Opportunities New Brunswick (ONB) and the Government of Canada through the Atlantic Canada Opportunities Agency (ACOA).



Agence de promotion économique du Canada atlantique









Methodology

The <u>Green Horizons</u> Project has employed a tailored Social Innovation Lab approach, bringing together SMEs, industry experts, policy makers, and support organizations to co-create practical, scalable solutions to take for field testing for SME sustainability and competitiveness. Following a structured, user-centered process, Green Horizons has completed core phases (Inspiration, Ideation, Implementation) and will begin validating proposed initiatives in September 2025.

Discovery (2024–2025):

- > Spring 2024: Province-wide survey of 400 SMEs assessing existing sustainability practices, barriers, and motivators.
- > **December 2024:** Stakeholder summit and interviews with key partners (NB Power, Green Economy NB, Opportunities New Brunswick, Atlantic Canada Opportunities Agency, and regional chambers).
- > **Spring 2025:** Follow-up focus group and seven in-depth interviews to explore emerging needs amid economic and political shifts.
- > **Spring 2024–2025:** Interviews, meetings, discussions and events with relevant stakeholders in the ecosystem, including SMEs and two advisory councils; one comprised of system leaders in NB, and one comprised of academic leaders.

Concept Generation (Spring & Summer 2025):

- Detailed analysis of Discovery findings to identify priority challenge areas.
- Ongoing interviews with SME and industry leaders to co-design solution concepts.
- Regular input and review from the Green Horizons
 Leadership and Research Advisory Councils.

Prototype Experimentation & On-going Dialogue (September 2025 – March 2026 [upcoming]):

- Field-test selected lab concepts with cohorts of SMEs and advisors.
- Measure impact on engagement, return on investment, and sustainability adoption.
- Iterate programs based on participant feedback and performance data.







Province-wide Survey, Key Findings

- Awareness vs. Preparedness: Although 83% of respondents recognize sustainability concepts, nearly 40% feel unprepared for Canada's 2050 net-zero target, and 75% lack a formal climate plan. Qualitative findings demonstrated major differences in definition and understanding of sustainability.
- Primary Barriers: 60% identify cost or funding gaps as the main obstacle, and among non-adopters (26%), 54% report a lack of interest. Businesses with higher revenues or headcounts are more likely to have formal decarbonization plans, dedicated sustainability roles, and systems for tracking emissions or energy usage. Smaller companies require support.
- Motivating Factors: Values-driven commitments (69%), customer expectations (57%), and market opportunities (56%) are the strongest incentives for action.
- **Role of Government:** 88% of SMEs believe government should lead policy and financing, even as 74% have implemented at least one energy-saving or waste-reduction measure.

Strategic Context

The <u>Canadian Net-Zero Emissions Accountability Act</u> mandates a 40-45% reduction in emissions by 2030 and net-zero by 2050; <u>New Brunswick's Climate Change Action Plan</u> targets a 46% cut by 2030, supported by <u>NB Power's Integrated Resource Plan</u>. Concurrently, international market requirements—such as the <u>EU's Green Deal</u> and the <u>EU's Carbon Border Adjustment Mechanism (CBAM)</u>, <u>Japan's Green Growth Strategy</u>, and <u>India's Paris Agreement</u> commitments—are raising the bar for supply-chain transparency and low-carbon production standards. Additionally, work conducted by Net-Zero Atlantic, in partnership with researchers at several Atlantic Canadian universities, recently conducted behavioural research on individual greenhouse gas emissions. This work underscores the cross-sectoral commitments required to achieve provincial and national climate goals (see., Net-Zero Atlantic, 2024).





Recommendations

Seven hands-on concepts and prototypes have been designed to address specific needs focusing on funding access, measurement tools, skills development, and peer learning:

- **1. Lighthouse Industry Spotlights:** Showcases leading NB firms with proven sustainability results to inspire and guide other SMEs through real-world case studies.
- **2. Chambers of Commerce as Sustainability Champions:** Delivers established sustainability training through NB chambers to build local capacity and engage SMEs at early readiness stages.
- **3. Sector-Specific Decarbonization:** Supports SMEs within a high-impact sector to co-develop actionable sustainability plans and identify shared barriers to implementation.
- **4. Bill C-59 Compliance as a Competitive Edge in Sustainable Sales & Marketing:** Supports SMEs in crafting credible, high-impact sustainability messaging to attract new customers and avoid greenwashing.
- **5. Export Edge:** Connects SMEs with the expertise, partnerships, and insights needed to thrive in export markets increasingly shaped by sustainability standards.
- **6. Decarbonization Dialogues:** Creates space for dialogue about how SMEs might navigate political uncertainty, as well as integrating green priorities into regional economic planning.
- **7. The Green Room:** Brings together funders, investors, and ecosystem partners to strengthen coordination and align financing strategies that accelerate sustainability and innovation across New Brunswick.

The next phase will involve field-testing the above-listed prototypes with SMEs and intermediary advisors, refine offerings based on participant feedback, and establish scalable roadmaps for integrating sustainability into core business strategy.

By addressing knowledge gaps, reducing financial barriers, and fostering collaborative learning, the Green Horizons project will enable NB SMEs to secure their market position in a low-carbon future and contribute to the province's broader economic resilience.

Economic and Environmental Context: Understanding the Opportunities and Challenges for New Brunswick's SMEs

Small and medium enterprises (SMEs), defined by ISED as businesses with 1–99 employees (small) or 100–499 employees (medium), form the backbone of NB's economy. Together they represent the majority of all businesses in the province, generate diverse employment opportunities, and act as vital links in the supply chains that support larger industries. Yet today, these firms face an unprecedented convergence of pressures: a rapidly shifting climate that poses physical and regulatory risks; growing geopolitical and trade instability; rising energy, materials, and financing costs; persistent labour shortages; and accelerating demands to adopt new technologies (from low-carbon processes to artificial intelligence), while meeting increasingly stringent environmental standards.

Navigating this complex landscape requires SMEs to seize emerging opportunities in green markets, build resilience into their operations, and leverage strategic partnerships to maintain competitiveness and drive sustainable growth.

ESG (Environmental, Social, and Governance) has emerged as a unifying framework for navigating these demands. Originally mandated only for publicly regulated firms in North America, ESG reporting is now moving toward voluntary adoption across private and mid-market companies, driven by customer expectations, investor scrutiny, and upstream buyers pushing for greater supply-chain transparency. Mirroring the rigorous disclosure regimes already in force in Europe, this shift means NB's SMEs that embed ESG metrics into their strategy and reporting will be better positioned to access capital, satisfy procurement requirements, and demonstrate resilience in an evolving global marketplace. The Canada EU Free Trade Agreement, the CETA, reaffirms the EU and Canada's commitment to sustainable development, ensuring trade and investment strengthen environmental protection and labor rights (Government of Canada, September 26, 2018)





Green Horizon: Adapting, Competing, and Thriving in a Shifting Economy

With more than 90% of NB's exports currently going to the United States (McNally, 2025), the evolving landscape of U.S. trade policy adds significant risk to SMEs that are heavily reliant on the U.S. market. Canada currently has 51 free trade agreements, opening preferential access to markets around the globe (Canadian Trade Commissioner Service, 2025). Expanding into alternative markets such as Europe and Asia, where demand for sustainable and low-carbon products is growing, offers a strategic opportunity. As Canada continues to refine its climate commitments, NB SMEs could position themselves to maintain and expand their market reach, ensuring long-term stability and growth despite shifting global dynamics. The Government of Canada has committed to net-zero greenhouse gas emissions by 2050 (Government of Canada, 2024). New Brunswick has set a 2030 target of reducing emissions 46% below 2005 levels. (Government of NB, 2023). New Brunswick has also issued a Green Procurement Policy in 2022. There are significant political influences, which may potentially shift in the coming years, though other regions show firm and on-going commitments to net-zero goals.

The European Union and major Asian markets like Japan and India are actively reshaping their economies around sustainability, creating both a demand and a requirement for environmentally responsible goods. For example, the EU's Green Deal (European Commission, 2019) and Carbon Border Adjustment Mechanism (CBAM; European Commission, 2023) are setting stringent standards for carbon intensity and supply chain transparency, meaning exporters must demonstrate sustainable production practices to access these markets. Similarly, Japan's Green Growth Strategy and India's commitments under the Paris Agreement are driving a shift toward low-carbon, resource-efficient industries (METI, 2020; UN Framework Convention on Climate Change, 2021). For NB SMEs, these developments offer a competitive advantage:

businesses that can innovate and meet rising environmental standards will be better positioned to enter new global value chains, attract premium buyers, and secure long-term growth in markets increasingly focused on climate responsibility.

Exporting to these markets requires SMEs to have a much greater understanding of their greenhouse gas (GHG) emissions across all scopes. Scope emissions refer to the categories of GHG emissions as defined by the internationally recognized Greenhouse Gas Protocol:



Scope 1 emissions are emissions from sources owned or controlled by the company, such as fuel combustion from company vehicles, boilers, or on-site manufacturing processes.



Scope 2 emissions are indirect emissions resulting from the generation of purchased energy, including electricity, steam, heating, and cooling consumed by the company.



Scope 3 emissions encompass all other indirect emissions that occur across a company's value chain, including supplier activities, business travel, transportation and distribution, waste disposal, and even customer use of sold products. Measuring and reducing Scope 3 emissions is often the most complex yet impactful aspect of a business's sustainability efforts.







In NB, energy consumption—particularly from heating, manufacturing activities, and transportation fleets—represents the largest source of Scope 1 and Scope 2 emissions among SMEs (Atlantic Provinces Economic Council, 2023). Fleet fuel use and building energy use dominate many small business emissions profiles. Scope 3 emissions, while less consistently measured, are increasingly relevant as global markets place greater scrutiny on supply chain sustainability. Addressing these emissions—through actions like improving energy efficiency, optimizing logistics, and selecting low-carbon suppliers—will be critical for SMEs aiming to meet European and certain Asian market requirements and demonstrate leadership in climate responsibility.

Green Horizons exists to turn SME sustainability intentions into tangible business advantage on a provincial, national, and global scale. By helping SMEs innovate, de-risk, and thrive in a low-carbon economy, it positions NB as a national leader in resilient, green enterprise.

This mission is driven by the real need for SMEs to balance the pressure to decarbonize with the imperative to remain competitive amid an increasingly unstable economic environment. To stay ahead, SMEs must strengthen market flexibility, reduce overreliance on any one customer or region, and ensure that every sustainability investment yields clear returns.

Given these opportunities and challenges, the Green Horizons project was launched in early 2024 to support the transition of SMEs as they move toward environmental sustainability, while retaining (or increasing) their competitiveness in an increasingly destabilized economic environment.

Using a phased, three-pronged approach, the Green Horizons project has:

- Completed a province-wide baseline survey to assess the attitudes, barriers, motivations, and current practices of NB SMEs related to environmental sustainability;
- Convened a one-day stakeholder summit to deepen engagement, validate initial findings, and gather additional perspectives from across the stakeholder ecosystem; and
- Initiated the launch of an adapted social innovation lab, including robust consultation with SMEs, the Green Horizons Leadership Council and Research Advisory Council, as well as other leaders and stakeholders. Together, the lab approach and potential concepts were co-designed and enabled a unique approach. Insights were refined and used to create actionable interventions that will enable SMEs to strengthen their sustainability practices while enhancing competitiveness.

This brief consolidates the insights gathered to date throughout the discovery phase of this project. It frames the key challenges and opportunities facing NB's SMEs within the broader context of environmental, economic, and geopolitical change. By reviewing existing policies and initiatives, the brief lays the groundwork for the next phase of work. It highlights where gaps exist in awareness or willingness to change and highlights several potential opportunities where social innovation lab approaches can have the greatest impact in accelerating SMEs' progress toward sustainability and net-zero goals, while also strengthening their capacity to adapt, diversify, and compete in an increasingly destabilized global economy. It positions the proposed concepts to catalyze solutions that will enhance SME resilience, unlock new market opportunities, and support NB's transition to a sustainable, inclusive future.

Discovery Findings

& Next Steps





Facing the Headwinds – Why Climate Adaptation Matters to NB SMEs

In the language of business and finance, a "headwind" describes any condition or factor that inhibits progress. NB's SMEs are currently sailing into a convergence of economic and environmental headwinds. These forces, while daunting, underscore the urgent necessity of adaptation—not just to survive, but to position for long-term success in a shifting economy. The following section represents a summary of what SMEs and industry leaders in NB mentioned throughout the discovery phase as their core challenges now and into the future.

Trade, Tariffs, and Market Access

New Brunswick exports 92% of its goods to the U.S., leaving SMEs highly vulnerable to shifts in trade policy, tariffs, and protectionism (McNally, 2025). As U.S. policy evolves, European and Asian markets offer new opportunities but increasingly come with sustainability standards and carbon transparency requirements, especially around Scope 1-3 emissions. Entering these markets without a clear climate strategy is no longer viable.







Rising Energy Costs

Energy prices in NB have risen sharply in recent years, driven by global fuel volatility, infrastructure constraints, and the long-term costs of carbon-intensive systems. SMEs in manufacturing, food processing, and transportation are disproportionately impacted, as energy can represent a significant share of operating costs. **Unlike larger firms, many SMEs lack** the capital to invest in clean technologies or energy retrofits, even when savings are evident over time.

As electrification accelerates through both the transition to electric vehicles and the deployment of Al-driven digital services, electricity demand is forecasted to climb substantially. The International Energy Agency (IEA) projects that Al workloads alone could increase global electricity consumption by up to 1,000 TWh by 2030, and widespread EV uptake could add another 2,000 TWh annually (IEA, 2024). Both apply further upward pressure on rates and grid investments. Combined with intensifying carbon pricing, energy costs are expected to remain volatile.

Without adopting proactive measures—such as energy audits, efficiency upgrades, or participation in renewable procurement programs—many SMEs will find it increasingly difficult to remain competitive, particularly in export-facing sectors.

Competing on Price vs. Value

Many NB businesses have historically competed on low cost. However, global buyers (such as in Europe) are shifting toward value-based procurement. This includes environmental performance and traceability across the supply chain. SMEs must learn to communicate their sustainability value proposition or risk being sidelined in procurement decisions. Yet, **negotiating on value requires confidence and clarity**—both of which are undermined by uncertainty and a fear of changed relationships with existing clients.

Food Sovereignty and Supply Chain Volatility

As climate change disrupts global supply chains, food sovereignty and local procurement are rising priorities. Prices at the grocery store are increasingly influenced by climate-related disruptions—droughts, floods, and extreme weather that impact both production and transport (Adaptation Report, 2025). SMEs in food and agriculture need adaptation plans not just for operational resilience, but to remain viable in increasingly volatile markets.





Strengthening Environmental Credibility in a Post-Bill C-59 Landscape

Under the amendments to the Competition Act introduced by Bill C-59, which came into force on June 20, 2024, Canadian SMEs face heightened legal and reputational risks for making unsubstantiated environmental claims (Canadian Climate Law Initiative, 2024; Government of Canada, 2024). The legislation requires that any representations about the environmental benefits of a product or business practice be supported by adequate and proper substantiation (such as testing or verification aligned with internationally recognized methodologies) prior to being made public. Non-compliance may result in significant penalties, including fines of up to \$10 million for a first offence, \$15 million for subsequent offences, or 3% of global revenues, whichever is greater. Beginning in mid-2025, private actors will be able to initiate complaints through the Competition Tribunal. A rapid response to Bill C-59 has led to "greenhushing", which refers to companies withholding disclosures of sustainability measures to avoid associated legal risk (Energy Futures Lab, 2025).

The Price of Inaction

Flooding is now a top risk for NB businesses. Cities like Saint John are among the most vulnerable in Canada. Yet over 75% of Canadian SMEs lack a formal climate plan. This lack of preparedness leaves businesses exposed to physical damages and to rising insurance premiums, disrupted operations, and lost revenue (Chambers of Commerce EOI Report, 2025).

Adapting is a Necessity, and is Already Underway

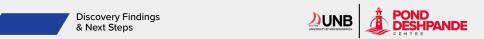
The majority of SMEs say they are concerned about climate change and want to do more to be sustainable (Pollara Executive Summary, 2024). Many don't know where to start, and cost remains the most cited barrier to action (Pollara Executive Summary, 2024).



We should be looking at climate not just as a cost, but as an economic opportunity. Can we create products or services in New Brunswick that put us in a strong position to lead in this space? Some markets are already there—they're focused on adaptation, because the cost of climate risk is getting priced in. Mortgages, insurance, the cost of capital—it's all going up. We may not be able to reverse those trends, but we can build businesses that thrive within them. We need to ask: how do we work on the upside of this shift instead of getting stuck on the downside?

Because the reality is, we're all in the sustainability business now whether we like it or not. It's like saying 15 years ago, 'I'm not in the Internet business.' Everyone touches it, whether directly or indirectly. And if we're not building toward a double bottom-line, we're going to get left behind."

SME Owner, June 2025



Regional Policy in Support of Sustainability NB Climate Adaptation Strategy

New Brunswick's Climate Change Action Plan (2022–2027) outlines a comprehensive strategy to enhance the province's resilience to climate change impacts. This plan emphasizes collaboration across various sectors and communities to implement effective adaptation measures. It provides high-level guidance on adaptation across sectors, including tools for municipalities and regional bodies. However, it does not explicitly target SMEs in most of its adaptation actions.

SMEs in NB are aware of the risks and open to change—but they face headwinds, especially related to cost, uncertainty, and lack of clear pathways. While the provincial adaptation strategy sets the stage, it needs to be translated into SME-relevant tools, incentives, and stories to drive real action.

Top Pressure	Example Impacts
Climate Change and Environmental Shifts	Flooding risks, rising insurance costs, export market sustainability standards.
Geopolitical and Trade Instability	Tariffs, reliance on U.S. markets, diversification needs (EU, Asia).
Cost and Inflation Pressures	Rising energy, transportation, and input costs; regulatory compliance costs.
Workforce and Talent Shortages	Difficulty hiring skilled workers; aging workforce challenges.
Technology and Digital Transformation Demands	Need for digital tools, clean technology adoption, and competitive innovation.
Access to Capital and Financing Barriers	Challenges securing funding for sustainability upgrades and adaptation investments.









Key Components of New Brunswick's Climate Adaptation Strategy

1. Provincial Leadership and Strategic Planning

The Government of New Brunswick has committed to a proactive approach in addressing climate change. The Climate Change Action Plan 2022–2027 includes 30 new actions aimed at making the province more sustainable, affordable, and resilient. These actions focus on reducing greenhouse gas emissions, preparing for climate impacts, and promoting sustainable practices across sectors.

2. Support for Local Governments

Recognizing the importance of local action, the province has set targets for municipal adaptation planning. By 2025, 50% of local governments and rural districts are expected to have completed adaptation plans, with the goal of 100% completion by 2030. These plans will identify vulnerabilities and outline priority adaptation measures to enhance community resilience. As of 2023, 58% of NB municipalities had completed climate adaptation plans (Government of New Brunswick, 2023).

3. Community Engagement and Resources

To assist communities in adaptation planning, the province has developed resources such as the "Guide for Climate Change Adaptation Planning." This guide provides information on assessing vulnerabilities, setting priorities, and implementing adaptation measures. It also emphasizes the importance of integrating climate considerations into land-use planning and decision-making processes.

4. Regional Initiatives and Collaborations

Regional bodies, such as the Chaleur Regional Service Commission, are actively developing climate adaptation plans tailored to their specific needs. These initiatives involve assessing regional risks, engaging stakeholders, and implementing measures to address identified vulnerabilities.

5. Health and Equity Considerations

The province acknowledges that climate change impacts can exacerbate health disparities. Projects led by Public Health NB have focused on assessing health vulnerabilities related to climate change, particularly in urban and rural settings. These assessments aim to inform adaptation strategies that address health risks and promote equity.





Provincial Tools and Frameworks

In addition to the Climate Adaptation Strategy described above, New Brunswick has also developed a practical <u>Guide for Climate Change Adaptation Planning</u> to equip local stakeholders with tools for building resilience. This guide is designed to increase the expertise and capacity of local governments and their partners (including NGOs and consultants) to conduct climate risk and vulnerability assessments, develop adaptation plans, and identify effective adaptation options. It lays out a structured framework that follows a step-by-step planning process from initial scoping of climate hazards through to the implementation of adaptation measures. The guide's content ranges from NB-specific climate projections to methodologies for prioritizing vulnerabilities and actions, providing a consistent template for community-level adaptation planning. Importantly, this approach supports the province's own adaptation targets: for example, NB's Climate Change Action Plan calls for 50% of local governments to have updated adaptation plans by 2025 and 100% by 2030. The most recent report on government progress towards these goals shows that 58% of NB municipalities have environmental adaptation plans (Government of New Brunswick, 2023). By offering clear planning frameworks and resources to meet these goals, the guide helps ensure that adaptation efforts are systematic and widespread. Integrating this guidance into the provincial strategy addresses previously noted gaps (such as limited awareness and planning capacity) by empowering communities and businesses with a cohesive set of tools to proactively manage climate risks.

Alignment and Support from the Atlantic Canada Opportunities Agency (ACOA)

At the federal level, New Brunswick's climate adaptation efforts are bolstered by ACOA's 2023–2027 Sustainable Development Strategy and its 2025–2026 Departmental Plan, which prioritize clean growth, sustainability, and support for SMEs across Atlantic Canada. ACOA's sustainable development vision aims for an inclusive low-carbon economy by 2050, and the Agency is backing this vision with strategic investments in clean technologies, energy efficiency and other sustainable practices that help SMEs and communities "green" their operations. These strategies explicitly align with national climate goals. For example, ACOA commits to expanding access to affordable clean energy, advancing industrial decarbonization, and accelerating the greening of firms and supply chains as part of Canada's net-zero transition. This policy alignment is reflected in concrete initiatives: ACOA's Clean Growth Initiative is fostering Atlantic Canadian firms' participation in emerging clean energy industries (such as wind-to-hydrogen, energy storage, small modular reactors and more) while helping traditional sectors transition to a low-carbon future.

At the same time, the Agency is advancing energy innovation by leveraging the region's renewable energy potential and promoting electrification and energy efficiency solutions to enhance business competitiveness. Equally important, federal support emphasizes economic diversification and community resilience; ACOA is investing in local projects and capacity-building that help communities and SMEs diversify their economic activities and adapt to climate impacts, strengthening long-term resilience in tandem with sustainable growth. Through these federally supported initiatives, New Brunswick's provincial climate adaptation objectives are tightly aligned with broader national efforts, ensuring that the province's push for sustainability and resilience is reinforced by targeted federal investments and programs.



Discovery: How NB SMEs are Thinking About and Adapting to Climate Change and the Emerging Green Economy



Premier Susan Holt:

New Brunswick was made for this moment in time. We have what the world wants, and what the world needs.

We're going to retool our economy to meet this moment, for growth.

It is going to take all of us to seize this opportunity. We have what the world needs in modular housing, defense, critical minerals, energy development, trade corridors and the home to stories and artists destined for the world stage.

Link to post



Canada and New Brunswick's Commitment to Net-Zero Emissions

Canada's commitment to achieve net-zero greenhouse gas (GHG) emissions by 2050 is a cornerstone of its national climate strategy. This objective, legislated through the Canadian Net-Zero Emissions Accountability Act, requires that all GHG emissions be eliminated or offset by equivalent removals via carbon capture technologies or natural sinks such as forests (Government of Canada, 2021). Achieving net-zero is essential to mitigating climate risks, preserving biodiversity, and ensuring long-term economic competitiveness. Provincial and federal agencies are aligning around Canada's net zero goals: The Government of New Brunswick has set ambitious climate goals and has embedded sustainability as a core pillar (ONB 2024); and ACOA has launched dedicated sustainability streams to help SMEs adopt and scale environmentally responsible practices (ACOA, 2023a; ACOA 2023b).

To reach set targets, the federal government has introduced sector-specific pathways and interim milestones. Canada aims to reduce emissions by 40–45% below 2005 levels by 2030. It has also established the 2030 Emissions Reduction Plan and is phasing out unabated coal-fired electricity by 2030 (Government of Canada, 2023; Government of Canada, 2022). Investments are being channeled into electrification, energy efficiency, clean technology innovation, and zero-emission transportation systems.





In alignment with these national ambitions, NB has set its own emission reduction roadmap. The province has committed to reducing emissions to 10.7 megatons by 2030—representing a 46% reduction from 2005 levels—and reaching net-zero by 2050. The province's Climate Change Action Plan 2022–2027 and NB Power's Integrated Resource Plan 2023 provide detailed roadmaps focused on renewable generation, electrified transport, building retrofits, and low-carbon industrial pathways (Government of New Brunswick, 2022; NB Power, 2023).

New Brunswick's electricity sector, which historically relied on fossil fuels, is undergoing a significant transformation (NB Power, 2023). The province is investing in cleaner generation sources such as wind, solar, and exploring small modular nuclear reactors (SMRs) and grid modernization. These shifts not only reduce emissions but also aim to improve energy security and create green job opportunities.

Furthermore, several initiatives including the Green Horizons project are enabling SMEs across the province to contribute meaningfully to these goals. Notable programs are offered by NB Power, the Department of Environment and Local Government (GNB), ONB, and ACOA. For example, NB Power is supporting initial implementation of energy-efficient technologies—such as LED lighting, programmable thermostats, and enhanced insulation. These allow businesses to reduce their environmental footprint with less upfront investment and often identify cost-saving measures. While these measures help businesses reduce their environmental footprint with minimal upfront

investment and often uncover cost savings, they tend to target low-hanging fruit—suggesting that larger, more transformative opportunities remain to be explored.

Government policy and utility-scale transitions are critical, the success of NB's net-zero ambitions will also depend on the engagement of SMEs directly. Pollara's survey of NB SMEs found that 88% of NB SMEs believe government should lead and do more to encourage SMEs to be environmentally sustainable. At the same time, a Federal Government study demonstrated that every \$1 invested in climate resilience can yield up to \$15 in avoided losses (Adaptation Report, 2025). SMEs play a central role in driving employment, local investment, and innovation across sectors. Understanding their current practices, motivations, and challenges is essential to designing effective climate strategies that are both practical and inclusive. The following section explores the SME landscape—who they are, what sectors they operate in, and how they are positioned to contribute to a low-carbon, climate-resilient future.





Landscape and Characteristics of SMEs in New Brunswick



99%

of all businesses in NB are **SMEs.**



Over 70%

of SMEs employ **fewer** than **50** people.



37%

of SMEs are women-owned.

Small and medium-sized enterprises (SMEs) represent 99% of all businesses in NB and employ 92% of the province's private sector workforce (McNally, 2025). These enterprises operate across a wide range of sectors, including construction, manufacturing, accommodation and food services, retail trade, and health care and social assistance. While sectoral distribution varies, SMEs are a foundational component of the provincial economy and contribute significantly to regional employment, service delivery, and supply chains.

Most SMEs in NB are modest in size and revenue. Of the 400 SMEs profiled by Pollara Strategic Insights as part of this project, over 70% employ fewer than 50 people, and approximately 39% report annual revenues below \$1 million. These businesses are small based on ISED's definition of SMEs, and tend to be geographically concentrated in urban centres such as Moncton, Fredericton, and Saint John (though their vital role in rural communities should not be understated). Their scale often limits their access to capital and skilled labour, while enabling them to remain agile and embedded in local economic networks.

The ownership profile of SMEs reflects growing diversity within the province's entrepreneurial landscape. Women-owned businesses make up 37% of the SME population, while 15% are immigrant-owned, 13% are owned by visible minorities, and 7% are Indigenous-owned. This diversity brings a range of perspectives and capacities to local business development. At the same time, many of these firms face intersecting structural barriers that require tailored policy and program responses.









74%

of SMEs have implemented at least one sustainable practice.



41%

of New Brunswick's greenhouse gas emissions come from SMEs.

NB SMEs are increasingly aware of the need to adapt to environmental and economic shifts. Three-in-four (74%) report having implemented at least one sustainable practice—most commonly energy efficiency and waste reduction (Pollara Strategic Insights, 2025). Yet a sizeable minority (26%) have not adopted any measures; of those, over half (54%) say they simply aren't interested in changing their operations (Pollara Strategic Insights, 2025). Despite practical barriers such as cost and lack of information, many SMEs still see sustainability as a strategic advantage and are actively seeking ways to improve resilience and competitiveness in a changing economy.

In April 2025, a report released by Green Economy NB highlighted several important factors (Green Economy New Brunswick, 2025). In NB, SMEs comprise 98.8% of all businesses yet collectively generate 41% of the province's green-house-gas emissions. The manufacturing sector alone contributes 7% of Atlantic Canada's GDP and employs over 81,500 people, reflecting the prevalence of energy-intensive operations that face above-average transportation and energy costs as well as limited access to capital and technical expertise. In pilot facility studies, electricity (Scope 2) accounted for 71% of emissions, with stationary and mobile combustion (Scope 1) comprising the remainder, highlighting the critical need for grid decarbonization to improve SME competitiveness. Yet Green Economy NB's scan of federal and regional decarbonization policies found a lower number of them applicable in NB, underscoring a policy-support gap for SMEs. Compounding these challenges, 60% of local service providers do not prioritize SMEs (citing limited internal capacity and perceived low demand) and many report shortcomings in clean-technology expertise and customer-engagement skills needed to guide businesses through the net-zero transition.





In May 2025, Premier Susan Holt identified **the following priority sectors within NB**, in alignment with federal priorities as outlined in the Prime Minister's Mandate letter (Prime Minister of Canada, 2025):







Energy development



Critical minerals



Defense and trade corridors



Artists

THE FOLLOWING TABLE OUTLINES NB'S KEY ECONOMIC SECTORS, THEIR CONTRIBUTIONS TO GDP, AND THEIR SIGNIFICANCE TO THE GREEN-ECONOMY LANDSCAPE (NOTE: THE OIL & GAS SECTOR, WHILE A MAJOR CONTRIBUTOR, IS EXCLUDED HERE).

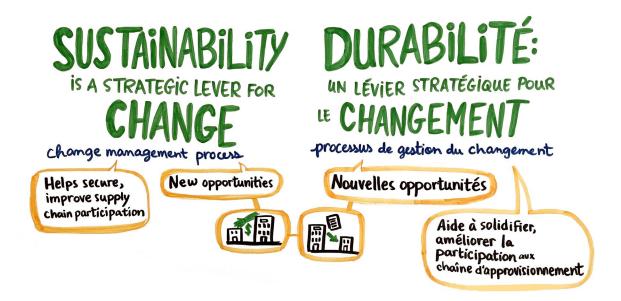
New Brunswick Key Industries

INDUSTRY	ECONOMIC CONTRIBUTION	SIGNIFICANCE		
Forestry and Wood Products	\$2.77 billion in exports (Government of New Brunswick, 2023); 20,000+ jobs	Longstanding industry (lumber, pulp, paper); bioeconomy innovation; rural jobs		
Agriculture and Agri-Food	\$1.2 billion in farm cash receipts; \$779 million in exports (Statistics Canada, 2025)	Includes potatoes, blueberries, dairy, poultry, and greenhouse operations; regenerative agriculture opportunities; climate sensitive and deeply tied to land and water issues.		
Manufacturing	\$4.12 billion contribution to GDP, or 11.5% (Statistics Canada, 2024)	Includes food processing, metal fabrication, plastics, and advanced materials; SME-driven sector; strategic leverage point for reducing emissions and improving competitiveness		

INDUSTRY	ECONOMIC CONTRIBUTION	SIGNIFICANCE
Tourism and Hospitality	\$2.3 billion in visitor spending; \$690 million GDP contribution; 38,500 jobs (Government of New Brunswick, 2024)	Natural and cultural tourism; potential to shift toward sustainable models
Transportation and Logistics	\$4.0 billion contribution to Atlantic Canada's GDP; 19,200 employees (Statistics Canada, 2025)	Ports, trucking, freight; key for SME market access
Energy and Utilities	14 generating stations with 3,772 MW capacity; 386,000 customers (NB Power, 2024). Also includes water, sewage, and gas.	NB Power plays a key role; renewable and grid modernization opportunities; intersects with heating fuel transitions for buildings and industry
Construction	\$3.58 billion contribution; 7.6% of New Brunswick's GDP	Strong SME presence; green building and resilient infrastructure potential
ICT and Cybersecurity (emerging)	New Brunswick's ICT and cybersecurity sectors are strong. In 2024, there were over 11,000 ICT jobs in New Brunswick (Government of New Brunswick, 2024)	Growing innovation sector; low emissions and high potential; prominent in urban centres like Fredericton, Saint John, and Moncton







Green Horizons Project Discovery: Understanding SME Needs and Opportunities

The discovery phase of this initiative established a foundational understanding of how NB SMEs are navigating the challenges and opportunities of climate adaptation, decarbonization, and the broader green economy. Designed to be both evidence-based and community-informed, this stage brought together quantitative research, real-world case studies, and insights from a broad cross-section of stakeholders. The result is a nuanced picture of the current landscape and a clear direction for future action.

A central component of this phase was a comprehensive study conducted by Pollara Strategic Insights. This included a representative survey of 400 SMEs across the province, as well as a supplementary online consultation with 57 additional business leaders. The research captured a diverse array of perspectives across industry sectors, regions, business sizes, and ownership models. It provided critical baseline data on SME sustainability practices, perceived barriers to progress, readiness for Canada's 2050 net-zero targets, and levels of interest in various types of policy and program support. This quantitative evidence has helped anchor the project in the lived realities of the business community.

In parallel with the research, the project hosted a public event highlighting NB SMEs already demonstrating leadership in sustainability and clean growth in December 2024. These stories served not only to showcase tangible solutions being implemented locally, but also to foster peer-to-peer learning and inspire broader participation. The province-wide event emphasized the potential for SMEs to be catalysts of innovation and resilience within the economy and explored practical pathways to decarbonization and shared priorities for accelerating sustainable business practices in the province.

This work was further informed by deep engagement with over three dozen leaders from across NB's economic and policy ecosystem. Participants included CEOs of leading firms, senior representatives from NB Power, Green Economy NB, the New Brunswick Business Council, and Opportunities New Brunswick, among others. Individual consulted as listed in the section titled <u>Stakeholders & SMEs Consulted</u>. Their contributions brought forward valuable insights on the structural and systemic factors that influence SME decision-making, as well as strategic alignment across public and private interests. These conversations helped identify high-leverage points for intervention and reinforced the importance of multi-sector collaboration.





Survey Takeaways at a Glance:

Familiarity with Sustainability:

- 83% of SMEs are familiar with sustainability concepts.
- 74% have adopted at least one sustainability measure.

Challenges to Adoption:

- 60% of SMEs struggle to implement sustainability practices, citing cost and lack of funding as primary obstacles.
- A further 15% of SMEs reported people management challenges as a barrier to adoption.
- While 61% of SMEs feel at least somewhat prepared to meet Canada's 2050 net-zero targets, 39% feel unprepared.

Motivations for Action

- 69% of SMEs are driven by a desire to help the environment.
- 57% are motivated by customer expectations and ease of implementation.
- 56% see financial opportunities as a key motivator.

Who Should Lead?

- 88% of respondents believe the government should take the lead and do more to encourage SMEs to be environmentally sustainable through policies, financing, and clean energy investments.
- Respondants believe SMEs (87%) and individuals (88%) also share responsibility for becoming more environmentally sustainable.

Current Sustainability Practices:

- 50% of SMEs actively monitor their sustainability performance.
- · Most tracked activities include:
 - > Recycling and waste management (37%).
 - > Transportation fleet efficiency (32%).
 - > Water conservation (30%).
- Five sectors contribute 90% of Atlantic business emissions: manufacturing, mining/offshore oil, transport, utilities, and others

Adoption Rates

- 74% of SMEs report implementing at least one sustainable practice.
- Most common practices: energy efficiency (30%), waste reduction (18%), and sustainable waste management (16%).

Discovery Findings

& Next Steps







What Environmental Sustainability Means to NB SMEs:

Pollara Strategic Insights undertook in-depth interviews and conducted a focus group, speaking with 10 NB SME owners or primary decision makers in Spring 2025. The following quotes demonstrate the diversity of definition around environmental sustainability for NB SMEs:

- Well, the way I see it is mostly trying to think of the future and our children, grandchildren, and the future
 generations coming, not to overexploit our resources, and try to limit our impact while we're here on the
 environment.
- Environmental sustainability means doing business without negatively impacting the environment overall.
- · It means transitioning from a linear "cradle to grave" model to a circular "cradle to cradle" approach.
- To me, personally, I think sometimes it's a bit of a fluff word, to be honest. It's so overused in today's dialogue that it can be a bit challenging to even understand what that means because to be environmentally responsible or sustainable can mean very different things to different people.
- My understanding of environmental sustainability is about minimizing our footprint and recognizing that even waste
 has a lifecycle. It's about ensuring that materials are part of a continuous cycle, where their reuse and repurposing
 make sense within a sustainable system.
- I guess when I think about it from my perspective of running a manufacturing facility, it would be about building a product that is built in a way that's as environmentally friendly as possible.
- I think it just means being mindful of the effects that our actions have on the environment and doing our best to respect the environment and nature.
- For me, from my business point of view, it would be trying to reduce food waste and using biodegradable stuff and things like that to have a better future for the generations to come.
- And when we talk about the environment, it's not just about land—it extends to shellfish, marine life, and sustainable
 ocean practices. It means avoiding overfishing and mass production, instead focusing on responsible methods that
 maintain balance and ensure long-term sustainability.
- Doing the right things to protect the environment and leave the world in better shape for the next generation. It can mean everything from recycling, composting, water conservation to carbon reduction.



Recently, I found myself saying there seems to be a shift away from sustainability and back toward growth—and then it struck me: sustainability is growth. Investing in cleaner energy and sustainable practices doesn't slow progress; it accelerates it. The challenge is that many still see 'green' as a cost or constraint rather than the opportunity it represents. When reframed, sustainability becomes a powerful driver of innovation, competitiveness, and shared prosperity across New Brunswick"

Claire Harris, President - Clean Energy Connections



Climate Adaptation Matters to New Brunswick SMEs

Across New Brunswick, the discovery SMEs are increasingly aware that climate change is not a distant threat, but a pressing and material concern. Results from Pollara Strategic Insights (2025) show that a significant majority—88%—report being aware and concerned about climate change and extreme weather events, citing risks such as flooding, infrastructure damage, rising insurance premiums, and supply chain disruptions. These challenges are not hypothetical; they are already affecting operations, costs, and long-term planning horizons. In response, 74% of SMEs have taken at least one step toward sustainability, implementing measures such as energy efficiency upgrades, waste reduction initiatives, and low-emission policies.

85%

Agree it is important that their business be environmentally sustainable



80%

Agree being environmentally sustainable would create competitive advantages for their business



While awareness and initial adoption are encouraging, significant gaps remain between ambition and implementation. Many SMEs encounter complex and compounding barriers that slow or stall progress. 60% of SMEs report struggling to implement sustainability practices, citing financial constraints—including the high upfront costs of retrofits and limited access to funding—as their most significant obstacle. These challenges are compounded by internal limitations: 15% of SMEs cite people management issues such as limited staff capacity, lack of internal expertise, or resistance to change as barriers to further adoption. Of the 26% of companies who have not adopted any sustainability measures, half (54%) are not interested in implementing green practices. As a result, fewer than one in four SMEs have developed formal sustainability or climate action plans, leaving them without a clear roadmap and exposing them to growing regulatory and operational risks.





of SMEs feel at least somewhat prepared to meet CANADA'S 2050 NET-ZERO TARGETS.



This sense of unpreparedness is reflected in SMEs' outlook on Canada's 2050 net-zero goals. While 61% feel at least somewhat prepared to meet these targets, 39% feel uncertain or unprepared (Pollara Strategic Insights, 2025). Smaller firms—particularly those with fewer than ten employees—report even lower levels of readiness. Beyond resource constraints, some SMEs also cite confusion about available rebate programs, difficulty navigating government incentives, and a lack of simple, standardized tools for tracking environmental impacts. These gaps underscore the need for targeted interventions—particularly those that combine financial support with technical guidance and community-based navigation—to help SMEs close the gap between sustainability awareness and climate action.





of NB SMEs identify **CUSTOMER EXPECTATIONS** as a **major driver** for adopting environmental measures.



Customer-driven motivations also rank highly among the factors that spur SMEs to act on sustainability. Pollara Strategic Insights (2025) found that **57**% of NB SMEs identify **customer expectations** as a major driver for adopting environmental measures, second only to environmental concern. In qualitative interviews, several larger firms described demand from major retail and CPG clients as "table stakes" (Pollara Strategic Insights, 2025). Younger end-consumers are increasingly seeking out companies that demonstrate genuine environmental stewardship, while large corporate buyers now require supplier compliance with sustainability standards. Together, these customer-driven pressures are pushing SMEs to integrate low-carbon practices not just as a social good, but as a necessity for maintaining market access and competitiveness.





Pollara's data reveal notable variation in sustainability engagement across ownership profiles. Indigenous-owned SMEs (7% of respondents) lead the way, with 97% having adopted environmental practices and 88% feeling at least somewhat prepared for Canada's net-zero targets. Businesses owned by visible minorities (13%) report an 86% implementation rate and 78% preparedness, with strong interest in energy-efficiency, emissions-reduction, and fleet-optimization programs. Women-owned firms (37%) exceed the overall average—80% have implemented sustainable measures—but only 65% feel ready for net-zero, suggesting a potential for tailored capacity-building.

INDIGENOUS-OWNED SMES

(7% of respondents):

97%

have adopted environmental practices

88%

feel at least somewhat prepared for Canada's netzero targets

VISIBLE MINORITY-OWNED SMES

(13% of respondents):

86%

implementation rate

78%

preparedness, with strong interest in energy-efficiency, emissions-reduction, and fleet-optimization programs

WOMEN-OWNED SMES

(37% of respondents):

80%

have implemented sustainable measures

Only 65%

feel ready for net-zero, suggesting a potential for tailored capacity-building.

Importantly and encouragingly, the province is also home to a growing cohort of businesses that view sustainability not just as a responsibility, but as a competitive advantage. These enterprises are building cutting-edge, low-carbon operations, rethinking product design and delivery, and actively positioning themselves for emerging markets and procurement opportunities. Their leadership demonstrates what is possible when sustainability is embedded as a core business strategy—offering not only environmental benefits, but enhanced resilience, talent attraction, and long-term growth potential.

While a growing group of sustainability-forward businesses are leading the way, the majority of SMEs continue to face substantial barriers that slow their progress. Despite a clear motivation to act—rooted in environmental values, customer demand, and recognition of long-term financial benefits—many are constrained by practical and structural limitations that hinder implementation.

Facing Significant Barriers

The most commonly cited challenges include high costs and limited access to funding, especially for capital-intensive upgrades like retrofits and equipment replacements. Many SMEs also report a lack of in-house expertise and technical capacity, which can make it difficult to assess options, implement new systems, or apply for incentive programs. SMEs find that even when they see quick paybacks (e.g., LEDs cutting energy spend by 75%), they lack the internal capacity to scope, finance, and manage projects—'we don't have a full-time sustainability person,' said one owner (Pollara Strategic Insights, 2025). Others are uncertain about what standards to follow or how to measure and report emissions—particularly when it comes to Scope 1, 2, and 3 carbon accounting. These realities underscore the need for support solutions that are affordable, easy to navigate, provide a clear ROI, and are scalable across different sectors and business sizes.









Key Drivers for Climate Action

At the same time, there are clear signals for when and why SMEs take action. Both the Atlantic Provinces Economic Council's 2023 analysis and detailed interviews conducted by Pollara Strategic Insights (2025) as part of this project found that businesses invest in clean growth and sustainability when three drivers align:

- ✓ Sufficient Return on Investment: SMEs prioritize projects that demonstrate a clear payback period or cost savings, such as energy-efficient retrofits that reduce utility bills by 10–20 percent, or process upgrades that improve yield and cut waste.
- Supportive Corporate Policies and Culture: When leadership embeds sustainability into corporate decision-making through incentives, targets, and performance metrics, employees and managers are empowered to pursue green initiatives.
- Clear Regulatory Requirements or Incentives: Compliance drivers such as expected carbon pricing increases, building-code upgrades, or preferred procurement standards encourage SMEs to act proactively rather than reactively.

Understanding these drivers is critical as we move into the next phase of this initiative: designing prototype initiatives that help SMEs overcome barriers while aligning with their strategic priorities.

Recent case studies from Atlantic Canada highlight the importance of ecosystem-level coordination. SMEs advancing on the path to net-zero often do so through collaborative approaches, working with government programs, utilities, service providers, and financial institutions. These examples show that decarbonization is not a solo effort—it is a "team sport" that benefits from shared infrastructure, financing pathways, and peer learning. Mapping and strengthening these enabling ecosystems will be key to scaling impact across the province.

What SMEs Need to Adapt

To accelerate adoption and ensure long-term climate resilience, SMEs require support systems that are both practical and context-specific. Clear, phased roadmaps outlining achievable first steps help reduce uncertainty, while financial incentives and grants play a key role in de-risking early investments (Stromwell and Brown, 2025). Equally important is hands-on training, peer learning opportunities, and coaching models that build internal capacity and confidence. Crucially, feedback from organizations such as NB Power and Green Economy NB highlights the value of involving external third parties. These individuals can often identify opportunities that go unnoticed by internal teams focused on day-to-day operations. Localized risk data, such as flood zone projections or infrastructure vulnerability maps, further enables SMEs to make informed decisions. Researchers and environmental support organisations can help by making this information easily accessible. Lastly, recognizing early adopters can also help generate positive momentum and create a culture of innovation within the SME community.





Learning from Early Innovators: How NB SMEs are Adapting to Climate Change

In the face of rising climate risks and evolving market demands, a number of SMEs in NB are stepping up as sustainability champions—demonstrating bold leadership, creativity, and commitment to building more resilient, low-carbon businesses. These early innovators are not only proving that sustainability and profitability can go hand in hand, but also providing real-world examples of how to turn environmental responsibility into strategic advantage. Their focus on GHG reduction, waste reduction, energy efficiency and more enable these businesses to offer unique products and take part in major supply chains. From manufacturing and agriculture to food production and construction, their actions illuminate practical pathways for other SMEs navigating the transition to a net-zero future. The following section provides detailed information about seven NB organisations from various regions of the province. Presented are the headquarters, the mission/vision, the overall business focus, and a brief description of the sustainability initiatives of each company.

GRIMROSS

Grimross Brewing Co.

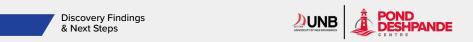
Grimross Brewing is based in Fredericton, NB. Their mission is to serve as a community hub offering quality craft beer, fun events, and good vibes year-round. Their main business activities include brewing small-batch, Belgian-inspired craft beers using traditional methods and local character. The company is deeply rooted in community engagement, regularly hosting music, food trucks, and other events to foster a vibrant and inclusive atmosphere.

They have integrated sustainability into their operations and ethos by occupying an energy-efficient facility and adopting advanced brewing technologies that reduce waste and enhance production efficiency. Grimross sources local ingredients whenever possible, supports circular agriculture by supplying spent grain to local farms, and prioritizes water conservation. Their commitment to sustainability is further demonstrated through the founder's new venture, Nutrento, which transforms local food and beverage waste into animal feed and fertilizer using insects.



When I launched Grimross, my goal was simple: brew great beer and bring people together. Over time, I discovered just how much we could optimize our operations with smart environmental practices—every bit of waste has value if you look for it. There's opportunity around every corner, and I'm committed to building something that not only thrives in my lifetime but endures for generations to come."

Stephen Dixon, Founder of Grimross Brewing





PLAEX Building Systems Inc.

PLAEX Building Systems is based in Dieppe, NB. Their mission is to revolutionize construction by transforming plastic and construction waste into durable, zero-waste, interlocking building systems that promote a circular economy and reduce environmental impact. The company specializes in sustainable building materials, creating modular blocks and panels that are interlocking, mortar-free, and quick to assemble. These products address critical challenges in the construction industry such as labor shortages, time constraints, and the demand for automation-ready solutions.

PLAEX has embedded sustainability at the core of its operations by using a closed-loop manufacturing process that upcycles hard-to-recycle plastics and other waste materials into construction-grade products. The company partners with local farms and industrial partners to source end-of-life materials, diverting them from landfills and turning them into durable infrastructure. Their products not only reduce environmental impact but also lower emissions compared to conventional concrete-based alternatives.



I want a bright future for my children and their children and their children's children. We built this business on the foundation of sustainability and efficient resource management. If we are ever to become a multi-planetary species, we need to manage our resources much, much better. Our goal is to make the word garbage an antique word. Waste should always be seen as a resource for another application."

Dustin Bowers, Founder and CEO of PLAEX





Extreme Windows and Entrance Systems

Extreme Windows and Entrance Systems is based in Moncton, NB. Their mission is to provide high-performance windows and doors that withstand Atlantic Canada's climate, with outstanding durability and energy efficiency. The company manufactures energy-efficient windows and entrance systems engineered to meet the rigorous weather conditions of the region, supporting high standards in residential and commercial building envelopes.

Their sustainability initiatives began with waste reduction and have since expanded to a wide range of efficiency measures. The company recycles 100% of its vinyl, aluminum, and glass, and has implemented energy audits and conservation strategies to improve operational performance. Their Energy Star certified products help reduce home energy consumption, and they are actively working toward becoming a net-zero manufacturing facility.



Our sustainability journey started with a simple belief—that we have a responsibility to the communities we serve and the environment we share. As manufacturers, we know that every material, every process, and every product has an impact. That's why we've embedded a sustainability lens into every layer of our operation—from product design to waste reduction, from energy efficiency to education. We're proud to be building not only better homes, but a better future for Atlantic Canada."

Phyllis Bannister, Vice-President, CFO & Founding Partner - Extreme Windows and Entrance Systems



Crosby's Molasses

Crosby's Molasses is based in Saint John, NB. Their mission is to deliver trusted, natural food products rooted in tradition and quality. Crosby's is a fifth-generation, family-owned company that produces and distributes molasses and natural sweeteners across Canada. The business has evolved with a focus on modernizing its operations while maintaining deep connections with its suppliers and local community.

The company has made sustainability a strategic priority through initiatives such as ethical sourcing—maintaining a decades-long partnership with a single sugar mill in Guatemala that operates with environmental responsibility. Crosby's also leverages ocean freight for shipping, reducing transport emissions, and has upgraded its production facility with energy-efficient systems. A dedicated Director of Quality Assurance, Continuous Improvement, and Sustainability ensures environmental and social considerations are embedded in decision-making, including efforts to reduce plastic use and food waste.











Andermatt Canada

Andermatt Canada is based in Hanwell, NB. Their mission is to provide environmentally safe and effective products for Integrated Pest Management (IPM) programs and promote healthy food and ecosystems. The company produces and distributes biological solutions for pest control in agriculture, forestry, and bee health, offering virus-based insecticides, biostimulants, and pheromone traps as alternatives to conventional chemical treatments.

Andermatt is a female-owned business known for its strong sustainability orientation. Their products reduce reliance on synthetic pesticides, improving soil and pollinator health while supporting regenerative agriculture. The company's leadership in sustainability was recognized with the ONB Sustainability Award, and their collaborative approach with researchers and growers ensures that environmental performance is central to product development and deployment.



Dizolve Group Corporation

Dizolve Group Corporation is based in Moncton, NB. Their mission is to create sustainable cleaning solutions that reduce plastic waste and environmental impact. Under the Tru Earth brand, the company produces ultra-concentrated laundry detergent strips that dissolve in water, offering a space- and carbon-saving alternative to traditional liquid detergents in plastic jugs.

Dizolve's sustainability efforts are reflected in both product design and organizational practice. Their supply chain is optimized for low emissions and minimal packaging waste, and they participate in voluntary environmental reporting. Dizolve has strengthened its sustainability reporting capabilities and alignment with broader corporate social responsibility goals. Their success exemplifies how supply chain pressures and funding supports can help small companies drive sustainable innovation.







Port of Belledune

Port of Belledune's mission is to serve as the province's leading green energy hub, facilitating sustainable bulk exports and fostering low-carbon industrial development on Port lands. The Port Authority handles over 27 different bulk commodities, including biomass, petroleum products, and minerals, and provides marine terminals, freight rail connections, and extensive storage facilities.

Port of Belledune has embedded sustainability into its long-term vision through its 30-year Master Development Plan, with the Green Energy Hub as its centerpiece. Key initiatives include:

- Biomass Leadership: As Eastern Canada's largest wood-pellet exporter, the Port supports reductions in overseas power-plant emissions by supplying sustainable biomass.
- Green Energy Infrastructure: Partnering on a hydrogen production facility and expanding Terminals 3 and 4 under a \$35 million National Trade Corridors Project (with GNB support).
- International Partnerships: Signing MOUs with Germany's Ports of Hamburg and Wilhelmshaven to export clean fuels and green products under the Canada-Germany Hydrogen Alliance.
- Future Opportunities: Planning for low-carbon industries such as green steel production and battery-grade mineral shipments, alongside grid modernization and renewable generation integration.

These efforts position Port of Belledune as a practical model of large-scale, port-driven decarbonization and an inspiration for SMEs seeking to scale green-energy solutions.





Existing Sustainability Resources for New Brunswick SMEs

NB's SME community is highly diverse, ranging from capital intensive manufacturers and food processors to technology start ups, professional services firms, and micro enterprises operating with only a handful of staff. In general, programs that require matching funds, dedicated project management, or measurable energy savings tend to benefit larger firms (100+ employees) with established revenue streams and in house finance or sustainability expertise. Likewise, enterprises in sectors with high energy or material inputs (e.g., forestry, manufacturing, food processing) often capture the greatest cost savings from efficiency incentives and retrofits. Very small businesses—especially those with fewer than 10 employees, limited cash flow, or remote operations—frequently find application processes onerous and may lack the capital or bandwidth to participate.

A scan of current funding and training resources available to SMEs via provincial and federal sources yielded a detailed list of rebate programs, grants, business support agencies, and training services. The list below is not exhaustive, though highlights a wide range of supports currently available to SMEs seeking to explore practical solutions towards achieving net-zero emissions.

Provincial programs available to SMEs

- > Commercial building retrofit program
- > Business rebate program
- > Industrial Energy Efficiency program
- > New Construction Commercial and Industrial Energy Efficiency program
- > Fuel Savings Transportation program
- > NB Power Net Metering Program

Federal programs

- > Incentives for Zero-Emissions Vehicles
- > Incentives for Medium-and Heavy-Duty Zero-Emissions Vehicles
- > The Net-Zero Challenge
- > Federal Clean tech options and benefits





Training Initiatives

Green Economy Canada Training bootcamps

The federal government previously released the <u>Clean Growth Initiative</u> which funded 43 clean technology research and development projects in three Canadian sectors which included energy, mining and forestry over a 4 year period. The program closed on March 31st 2022.

Decarbonization Consulting Services

In addition to the incentives and training programs, there are several organizations that support SMEs towards their decarbonization journey. These organizations provide consulting services on a range of business needs. This includes:

- > Green Economy New Brunswick
- > Climative
- > Bloom NuMetric



Green Horizons Summit, December 2024

Green Horizons: Adapting, Competing, and Thriving in a Shifting Economy

International Exporting Supports

Various support programs are available at federal, provincial, and industry-specific levels to assist Canadian SMEs in navigating international markets and environmental regulations.

Provincial Support:

- > LearnSphere
- > Opportunities NB
- > GNB Strategic Initiatives Fund
- > Local Chambers of Commerce

Federal/National Support:

- > CanExport Program
- > Export Development Canada
- > Business Development Bank of Canada
- > Trade Commissioner Service
- Canadian Manufacturers & Exporters
- NRCan Clean Growth Program

Industry-Specific Support:

> AgriMarketing Program from Agriculture and Agri-Food Canada

Other Relevent Reports

In addition to the existing programs, there are several reports that deal with the topic of decarbonization for SMEs. This includes:

- > NB SME International Export Competitiveness, Smart Grid Innovation Network
- > Beyond US Markets: Canadian SME Export Diversification, Smart Grid Innovation Network
- > Adapting to Climate Change is Critical for a Resilient Atlantic Economy, Atlantic Economic Council



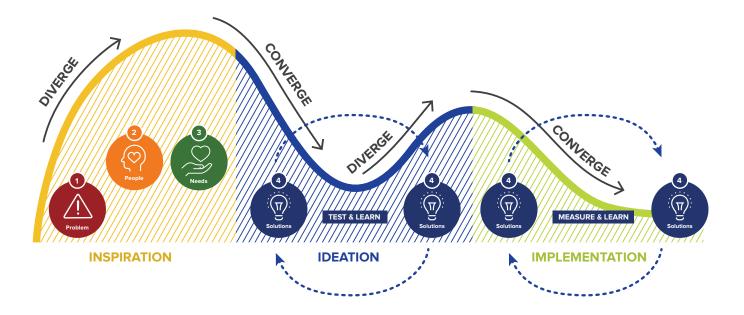


Green Horizons Social Innovation Lab

Human-Centred Design Approach

The Green Horizons Lab applies a **human-centred design (HCD)** methodology to ensure that all proposed solutions are deeply informed by the real-world experiences, constraints, and motivations of NB SMEs. As global markets shift rapidly in response to climate imperatives, the transition toward low-carbon operations is no longer optional—it is essential for long-term business viability and regional competitiveness.

HCD design process by IDEO



In this high-stakes context, where SMEs are navigating limited resources, mounting regulatory requirements, and evolving supply chain expectations, it is critical that policy, programs, and supports are not only well-intentioned but also effective. The Lab's design approach ensures that solutions are aligned with what SMEs need to succeed and identifies gaps that may otherwise remain hidden. HCD provides a structured, evidence-informed process that minimizes risk, accelerates learning, and prevents the waste of time and resources in this complex transition.

HCD unfolds in three key phases—Inspiration, Ideation, and Implementation—which together guide participants through both the problem space and solution space. This "double diamond" framework supports both divergent thinking to explore a wide range of insights, and convergent thinking to narrow in on what truly matters.

- ✓ INSPIRATION: In this phase, the Lab uncovers the experiences, drivers and challenges of SMEs adopting low-carbon practices and synthesizes these insights into clear opportunity areas and design criteria. Through in-depth research—interviews, observations and data analysis—the team identifies unmet needs, operational constraints and systemic barriers across industries and regions, then distills these learnings into focused problem statements and design priorities.
- ▶ **IDEATION:** Building on those priorities, the Lab generates early-stage, small-scale prototypes to explore possible solutions. These mock-ups are tested rapidly and inexpensively with users to assess desirability, feasibility and viability, gathering feedback on what works, what doesn't, and where to refine.
- ► **IMPLEMENTATION:** The most promising ideas are developed into robust pilots or integrated initiatives. This phase involves detailed design, partnership alignment and real-world testing—whether through field trials, policy trials or program roll-outs—so that solutions can be scaled, iterated and ultimately adopted.

Concept, Prototype, and Pilot Definitions

A **concept** represents an initial idea or abstract approach to address a particular sustainability challenge. A **prototype** is an early-stage model of that idea—designed to test and refine functionality in a low-risk, cost-effective manner. A pilot is a more formal trial of a solution with a limited group of end users, conducted under real-world conditions before a broader rollout.

The Role of Prototyping

Prototyping is a foundational element of the human-centered design methodology, providing a rapid, low-cost way to validate ideas prior to full-scale implementation. Whereas pilots typically entail fixed activities and extended evaluation periods, prototypes enable swift iteration: hypotheses can be tested in days or weeks, feedback is gathered immediately, and designs are refined in response. Examples might include a basic digital tool for tracking greenhouse-gas emissions, a one-page roadmap outlining an energy-transition strategy for a tourism cluster, or a mock-up of a sustainability audit checklist for food processors. When a prototype demonstrates a clear fit with user needs, uncovers potential obstacles, and identifies next steps, the Lab proceeds to a larger pilot. In some cases, robust prototype results may justify moving directly into broader implementation without a separate pilot phase.

The Continuum of Experimentation

The experimentation process follows a logical progression: promising ideas, rapid prototypes, field prototypes, pilot or demonstration initiatives, and, ultimately, adopted and scaled programs. This continuum emphasizes continuous learning, stakeholder feedback, and evidence-based decision making. By embedding prototyping within this framework, the Green Horizons Lab reduces wasted effort and increases the likelihood of identifying effective interventions. The result is a set of real-world solutions that help NB SMEs accelerate their transition to low-carbon operations and support sustainable economic growth.



& Next Steps



Green Horizons- Where We Are Today

Responding to a Shifting Economic and Political Landscape

The Green Horizons project was initiated to support NB's SMEs in navigating the transition to a low-carbon economy. Since its inception, significant political and economic changes have underscored the urgency of this mission:

- Provincial Leadership Change: In October 2024, NB elected premier Susan Holt, who led the Liberal Party to a majority government. This shift may signal a renewed focus on economic diversification and sustainability initiatives within the province.
- Federal Government Transition: In April 2025, Canada elected a new federal government under Prime Minister Mark Carney. The new administration has emphasized establishing new economic relationships with the US, strengthening relationships with global trade allies, and removing provincial trade barriers to grow domestic industries (Prime Minister of Canada, 2025).
- ▼ Trade Tensions with the United States: Trade relations with the United States remain an ongoing and rapidly changing situation. Tariffs on Canadian exports and reciprocal duties on U.S. goods are continuously shifting. These developments have highlighted the need for NB SMEs to continuously monitor policy changes, explore alternative markets, and enhance competitiveness.

Project Evolution and Strategic Pivot

Initially, Green HorizonsNB aimed to engage a broad spectrum of SMEs through a traditional innovation lab model. However, insights gathered during the project's early phases necessitated a strategic pivot:

- ▼ Targeted SME Engagement: Recognizing that SMEs with annual revenues exceeding \$1 million are more likely to have the capacity and motivation to implement sustainable practices, the project refocused its efforts on two segments: businesses with annual revenues of \$1-5 million, and those exceeding \$5 million.
- Awareness and Resource Gaps: Surveys and consultations revealed that many SMEs are unaware of existing sustainability programs and resources, such as those offered by NB Power through SaveEnergyNB. This lack of awareness has hindered the adoption of low-carbon practices.
- Market Diversification Needs: With 92% of NB's exports traditionally directed to the U.S., SMEs have limited exposure to markets with stricter environmental regulations. The current trade climate underscores the importance of diversifying export destinations.



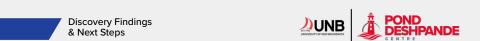


Shared Responsibility and Strategic Inertia

Despite growing interest in sustainability, both government and SMEs often end up waiting on each other to take the first step. Pollara's 2025 survey results show that most New Brunswick SMEs believe government should lead by setting clearer standards, offering stronger incentives, and enforcing regulations. They are seeking clarity on how to move forward with sustainability—what roadmap can they follow? At the same time, many government partners see their role as enabling and nudging, not directing. The result is a kind of decision-making vacuum, and this has been felt first-hand throughout this design process. Movement, at times, can be slow, and it is challenging to see the 'path through the trees' when attempting to select prototypes to even test as part of the Green Horizonsinitiative.

There's no shortage of strategies, organizations, or programs focused on sustainability. But without a clear point of focus and without anyone stepping forward, momentum stalls. Partway through this process, it became clear that a requirement underlying all prototypes must be to help uncover specific, doable starting points, and ideally ways for both government and SMEs to stop standing on the sidelines and start moving forward, even if the steps are small.

Meaningful change doesn't usually come from sweeping declarations. It comes from picking a direction and testing something in the real world, whether it's a prototype, a pilot, a shift in policy or practice. Without focus, even the best-funded projects risk getting stuck in planning mode. Government can potentially find a middle-ground between nudging and forcing, and perhaps SMEs can see the direct benefits of taking action towards sustainability and not waiting to have no other choice. The Lab's role is to help set that focus and turn intention into action. It is our hope that these small steps on both sides can build real momentum, and lead to sustainable change.



Timeline of Key Activities

The Lab has completed two core phases (Discovery and Prototype Generation) and will soon enter a pilot phase to validate and refine its proposed initiatives. The major phases, timeline, and key activities are described in the following table.

Discovery Province-wide survey of 400 SMEs assessing existing sustainability practices, barriers, and motivators. (Spring 2024 - 2025) Stakeholder summit and interviews with Leadership Council, Research Advisory Council, and key partners (NB Power, Green Economy NB, Opportunities New Brunswick, ACOA, and regional chambers). ______ Follow-up focus group and seven in-depth interviews to explore emerging needs amid economic and political shifts. **Prototype Generation** Detailed analysis of Discovery findings to identify priority challenge areas. (Early 2025) Ongoing interviews with SME and industry leaders such as NB Power, Green Economy NB, Bioindustrial Innovation Canada, and the Wallace McCain Institute to co-design prototype activities. Ongoing input and review from the Green Horizons Leadership and Research Advisory Councils. **Prototype Pilot Phase with** Field-test selected lab prototypes with cohorts of SMEs and advisors. on-going engagement, Measure impact on engagement, return on investment, and sustainability adoption. validation, and feedback (September 2025 - March 2026) Iterate programs based on participant feedback and performance data. Continued conversation with ecosustem and stakeholders leaders, ongoing integration of feedback, and further exploration of gaps and opportunities to be continued throughout the piloting phase.

Current Focus and Next Steps

Green Horizons NB is now concentrating on:

- Enhancing Awareness: Developing strategies to increase SME awareness of existing sustainability resources and programs.
- Building Capacity: Providing targeted support to SMEs poised to implement low-carbon practices and access new markets.
- Fostering Collaboration: Engaging with provincial and federal governments, industry partners, and support organizations to create a cohesive ecosystem that facilitates SME sustainability.

By aligning its approach with the evolving political and economic context, Green Horizons NB aims to empower SMEs to thrive in a low-carbon economy and contribute to NB's sustainable growth.

& Next Steps



Theory of Change

If

NB SMEs want to compete in regulated markets or join global supply chains that demand low-carbon practices...

Then

they will be motivated to adopt sustainability strategies—but may lack the knowledge, tools, or support to do so...

So that

with the right guidance, resources, and peer support, they can implement practical climate solutions...

Which leads to

stronger market positioning, improved operational resilience, and a regional shift toward a competitive, low-carbon economy.

Challenge Question

How might we enable New Brunswick SMEs to turn sustainability into a competitive advantage, despite constraints in time, tools, or resources?

Vision of Success

Key partners and stakeholders engaged in the Green Horizons project have contributed to this shared vision for how a successful lab process and implementation of its recommendations can support a more sustainable, competitive small business landscape in NB. The following outcomes reflect our collective aspirations:

- **1. SMEs across NB feel supported and confident** in implementing low-carbon practices that align with global supply chain and export requirements.
- **2. SMEs and their stakeholders are well-informed** through targeted awareness campaigns and educational resources, ensuring they understand climate risks and sustainable opportunities.
- **3.** Business owners are equipped with accessible tools and guidance to track sustainability metrics and meet regulatory or certification reporting needs.
- **4. Participating SMEs experience tangible economic benefits** from their sustainability efforts, including new market access, cost savings, increased product value, and/or increased customer loyalty.



- **5. Sustainability becomes a strategic advantage** rather than a burden, positioning NB SMEs to lead, not lag, in the green economy transition.
- **6. Collaborative relationships are formed** among SMEs, industry partners, and public sector actors to share knowledge and co-develop practical solutions.
- **7. Capacity is built across sectors** to support SMEs with climate adaptation, emissions reduction, and circular business models long after the lab ends.
- **8. NB** earns recognition as a region that supports its SMEs in thriving through sustainability, strengthening both its economic resilience and environmental leadership.

Target Participants and the Diffusion of Innovation Framework

As the project transitions into its Lab phase, it is essential to consider how sustainable practices diffuse through the SME community. The Diffusion of Innovation Framework (Rogers, 2003) offers a proven roadmap for understanding this process, highlighting the roles different adopter groups play in spreading new ideas, products, and technologies across a market. By aligning lab activities with this framework, Green Horizons can accelerate uptake and ensure solutions reach critical mass.

Overview of the Framework

Everett Rogers' Diffusion of Innovation theory categorizes adopters into five groups:



Green Horizons Summit, December 2024

- ✓ Innovators (2.5%) Risk-takers who experiment with new approaches firsthand.
- Early Adopters (13.5%) Opinion leaders who evaluate and champion innovations once they see evidence of value.
- Early Majority (34%) Pragmatists who adopt new solutions after hearing endorsements from respected peers.
- Late Majority (34%) Skeptics who wait until innovations become well established.
- Laggards (16%) Traditionalists who resist change until it is unavoidable.

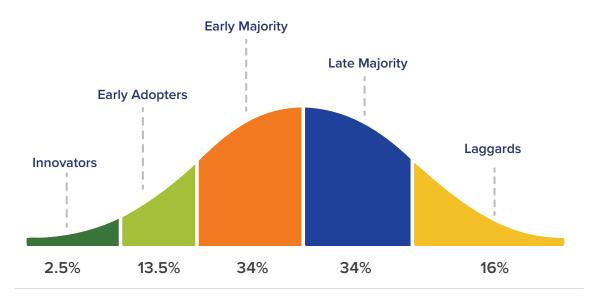


Strategic Focus for Green Horizons Labs

To generate momentum, the lab will concentrate on **Early Adopters** and the **Early Majority**. Thes are the two segments most likely to validate, refine, and promote sustainable business practices. Innovators are not targeted as they are already engaged in sustainability practices and are leading the pack.

By targeting the "tipping point" between Early Adopters and the Early Majority, Green Horizons can more effectively move SMEs along a structured readiness pathway. The Strategic Focus section highlights who will kick-start momentum; the Readiness Continuum then shows how to meet SMEs where they are on their sustainability journey. Together, these frameworks ensure that lab activities are not only reaching the right participants but also delivering the right supports—whether that means raising basic awareness, building motivation, or providing hands-on implementation tools. This alignment between adopter segments and readiness levels creates a clear roadmap for sequential engagement, helping SMEs progress from initial interest to fully embedded sustainability practice.

By equipping these two groups with tailored toolkits, curated networks, and structured testing environments, Green Horizons aims to create visible success stories that lower perceived risk and inspire the broader SME community to follow suit.



INNOVATION ADOPTION LIFECYCLE

Green Horizons Lab Readiness Continuum

A readiness continuum is a tool used to assess and visualize how prepared individuals or organizations are to adopt a new behavior, approach, or set of practices. In the context of the Green Horizons Lab, this continuum helps categorize SMEs based on their current level of awareness, interest, and engagement with sustainability. This readiness continuum was built based on input throughout the discovery process, and deep understanding of the diffusion of innovation framework.

The continuum ranges from businesses that are entirely unaware of sustainability or see no relevance to their operations, to those where sustainability is deeply embedded in strategy, culture, and brand. Mapping SMEs along this spectrum allows program designers, funders, and partners to better tailor supports, identify appropriate lab participants, and understand where the greatest opportunities for impact lie. The Green Horizons Lab is focused on engaging SMEs in the middle of this continuum—those who are motivated but may lack the tools, clarity, or capacity to take action.

Stage	Label	Description	Readiness Indicators
1	Unaware / Unengaged	Business has no awareness of sustainability issues or programs; no perceived relevance.	Sustainability isn't a priority; unaware of emissions, funding, or reporting tools.
2	Aware but Disengaged	Aware of sustainability as a concept but not taking action; perceives it as low-priority or costly.	Knows programs exist but sees no business case or lacks leadership buy-in.
3	Interested but Inactive	Expresses interest in sustainability but lacks capacity, clarity, or tools to begin.	Has questions about reporting, carbon tools, or funding; may have had initial discussions.
4	Initiating / Emerging Practitioner	Has begun implementing basic practices (e.g., waste reduction, energy audits) but not yet strategic.	Some internal champions; early sustainability language in brand or operations.
5	Strategic Adopter	Sustainability is embedded in planning, strategy, and operations; data is tracked and shared.	SG goals in strategic plan; uses reporting frameworks; sees ROI or market advantage.
6	Sustainability Leader	Sustainability is core to company identity, culture, and brand; aligned with net-zero goals.	Public commitments; suppliers held to ESG standards; innovation and advocacy evident.

Targeting the Right Level of Readiness

To maximize impact, the Green Horizons Lab will concentrate on SMEs situated in Stages 3 to 5 of the Readiness Continuum. These SMEs recognize the value of sustainability, have initiated early actions, or are working to integrate environmental goals into core strategy. These "in motion" businesses are both motivated and receptive, yet still encounter barriers such as limited expertise, internal alignment challenges, or a lack of practical implementation tools. By focusing on this segment—equivalent to the intersection of Early Adopters and the Early Majority in the Diffusion of Innovation framework—the Lab can prototype targeted interventions where they will be adopted, refined, and championed. This approach ensures that resources are dedicated to SMEs poised to advance rapidly, generating visible success stories that lower perceived risks and create momentum for broader adoption across the provincial SME landscape.





PARTICIPANTS ARE EXPECTED TO MEET THE FOLLOWING CRITERIA:

Revenues of \$1-5 million or exceeding \$5 million per year. SMEs below this threshold are often in survival mode and may lack the capacity to engage meaningfully in a structured lab environment.

Actively interested in sustainability, even if they currently lack the expertise, time, or clear direction to act.

Early adopters or early majority who are ready to experiment, implement, and scale practical initiatives.

Open to learning and influence, willing to share insights and help shape sustainability culture within their organization and sector.

Have a clear strategic interest, such as pursuing new export markets (e.g., the EU or Asia), adopting digital sustainability tools, improving supply chain resilience, or reducing emissions.

Preferably from higher-impact sectors (e.g., manufacturing, transportation, agriculture or value-added food, construction, tourism), though sector is not a limiting factor.

While many sustainability programs focus on technologies or sectors, Green Horizons focuses on people—the right individuals who can pilot scalable, replicable changes inside their businesses. Participants must be able to commit time, resources, and decision-making authority to engage fully in the lab process.

This lab responds to a significant gap: despite available programs and funding, a majority of SMEs remain unaware of the support landscape. Moreover, Pollara research showed that some NB SMEs are not currently interested in implementing green practices, often because they are too focused on immediate operational pressures. Green Horizons aims to support the motivated minority who are ready to act and build broader momentum for change and also support their core operational goals.

Prototype Participant Checklist

This checklist outlines the core attributes of SMEs that are best suited to participate in the Green Horizons Lab Prototypes. Ideal participants will meet most or all of the following criteria:

1. Business Profile

- Annual revenue of \$1-5 million or exceeding \$5M
- Classified as a small or medium-sized enterprise (SME) (under 500 employees)
- Has existing operations or supply chains (not pre-revenue or exploratory stage)
- Registered in NB, or, a federally-registered corporation that is head quartered in NB





2. Decision-Making Capacity

- Participant is a business owner, senior executive, and has the authority to drive change
- Can allocate time and resources to engage meaningfully throughout the full duration of experimentation (estimated 4–16 hours/month depending on which prototype is selected)

3. Sustainability Readiness (Stage 3-5 of the readiness continuum)

- Expresses interest in sustainability or low-carbon practices
- May have taken early steps (e.g., energy audits, waste reduction)
- Open to aligning sustainability with business goals

4. Strategic Motivation

- Has a clear business driver for engaging in the lab prototype, such as:
- Growth ambitions (such as export to EU or Asia)
- Interest in supply chain readiness or Scope 3 reporting
- Need for digital tools to support sustainability tracking
- Desire to rebrand or reposition as a sustainable business
- · Interested in growing market access, cost savings, or risk reduction through sustainability

5. Behavioral Indicators

- Willing to experiment, share lessons learned, and prototype new ideas
- Open to peer collaboration and co-creation with other SMEs and ecosystem partners
- Committed to full participation

The Green Horizons Team

The success of the Green Horizons project has been driven by the contributions of a broad and diverse group of participants across NB. From researchers to entrepreneurs, public sector leaders to community advocates, this work reflects a deep, cross-sectoral commitment to supporting SMEs in adapting to a low-carbon economy.







Core Project Team

This group led the day-to-day coordination, research, engagement, and lab design for Green Horizons. Team members were responsible for organizing the survey, organizing and leading the summit, drafting reports, and preparing for the launch of the Social Innovation Lab Prototypes.

Name	Title	Organization
Vanessa Paesani	Executive Director	Pond-Deshpande Centre, UNB
Jasmeet Singh Narula	Project Coordinator	Pond-Deshpande Centre, UNB
Simon Marmura Brown	Strategic Director of Research and Knowledge Mobilization	Pond-Deshpande Centre, UNB
Madison Tucker	Communications & Events Coordinator	Pond-Deshpande Centre, UNB
Karina Wong Chong	Project Manager	Office of the President, UNB
Bethany Deshpande	Associate, Consultant	Pond-Deshpande Centre, UNB
Josée Rioux-Walker	Associate, Consultant Pond-Deshpande Centre, UNE	

Leadership Council

The Leadership Council guided the project's overall direction, offering insights on policy relevance, feasibility, and alignment with economic development goals. Members come from across government, utilities, economic development agencies, Indigenous organizations, and business.

Organization	
Opportunities New Brunswick	Greater Moncton Chamber of Commerce
Atlantic Canada Opportunities Agency	Saint John Region Chamber of Commerce
GNB, Climate Change Secretariat	Luminultra
NB Power	New Brunswick Business Council
Port Saint John	Envision Saint John
Green Economy NB	Construction Association of New Brunswick
Université de Moncton	Clean Energy Connections
Joint Economic Development Initiative Inc.	Climative
Fredericton Chamber of Commerce	







Research Advisory Council

This advisory group ensured academic rigour and relevance throughout the discovery phase. They reviewed research tools, helped interpret data, and connected the project to broader policy and economic contexts.

Name	Title	Organization
Lana Asaff	Senior Economist	Atlantic Economic Council
Anna Keleher	Senior Advisor	Behavioural Insights Team
Michelle Gray	Associate Professor and Dean, Faculty of Forestry & Environmental Management	University of New Brunswick
Herb Emery	Vaughan Chair in Regional Economics	University of New Brunswick
Kadia Aka	Professor, Department of Business Administration	Université de Moncton

Stakeholders & SMEs Consulted

Over the course of this project:

- 400 SMEs across the province participated in a survey assessing sustainability practices, challenges, and motivations.
- 57 SMEs contributed through an open online consultation, sharing stories, questions, and feedback.
- ✓ 30–35 multi-sectoral participants will be engaged in the next steps, including SME leaders, policy makers, researchers, and community representatives.

In addition to members of the advisory councils described above, the following stakeholders were also consulted:

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Green Horizons Summit, December 2024

Organization
Smart Grid Innovation Network Canada
NB Power
University of New Brunswick
QUEST Canada
Energy Futures Lab
North Shore Mi'kmaq Tribal Council
Foresight Canada
Dunsky Energy + Climate Advisors
Bioindustrial Innovation Canada
Net Zero Atlantic
Wallace McCain Institute at UNB

The rich, ground-level insights provided by these businesses and associations have shaped the project's focus areas and upcoming lab prototypes and priorities.







Proposed Social Innovation Prototypes

As NB SMEs navigate the pressures of climate transition, global trade shifts, and evolving buyer expectations, the Green Horizons project has surfaced a critical need for practical, targeted interventions. The industries of focus include modular homes and sustainable building, agriculture and food, smart grid development and energy, tourism, forestry, and marine technology. The following lab prototypes have been developed to directly support SMEs in building capacity, accessing new markets, and embedding sustainability into their operations. Each prototype is designed to address a specific barrier or opportunity identified through stakeholder engagement, policy analysis, and international benchmarking. Together, these prototypes offer a suite of actionable, scalable pathways to help SMEs thrive in a low-carbon economy, while also positioning NB as a leader in sustainable business innovation.

These prototypes will be executed under a clear set of constraints to ensure they remain focused and achievable: each will run between September 2025 and March 2026, with an average budget of \$25,000 per prototype. Their scope is intentionally simple; these prototypes are designed as quick wins that can be developed, tested, and iterated rapidly. Additionally, there will be an additional prototype engaging NB's Indigenous community, to be developed in partnership with the Joint Economic Development Initiative (JEDI). This section provides a detailed description of each prototype, and is followed by a table summarizing the prototypes, timeline, budget, KPIs, their link to key findings and the Green Horizons vision of success.

Lighthouse Industry Spotlights

Overview:

Showcase sustainability leaders across key sectors to inspire and guide SMEs through relatable, real-world examples of what sustainable growth looks like in practice.

Why this matters:

Many NB SMEs are still defining what sustainability means for their business. By highlighting local success stories and demonstrating tangible benefits, these spotlights aim to build awareness, confidence, and momentum toward sustainable competitiveness.

Inspiration:

Modelled after international best practices such as Denmark's *Environmental Lighthouse* program and the UK's *SME Climate Hub.*





Chambers of Commerce as Sustainability Champions

Overview:

Partner with the Sustainable Innovation Academy (SIA) to deliver sustainability and innovation training through New Brunswick's chambers of commerce, strengthening SME capacity and empowering local business networks to lead the transition.

Why this matters:

Many SMEs are interested in sustainability but lack access to practical education and guidance. By leveraging chambers as trusted conveners, this initiative embeds sustainability learning directly within local business ecosystems—building confidence, community, and momentum for change.

How it works:

Pilot SIA's flagship courses with select chambers, combining online learning with in-person workshops. Capture lessons and feedback to refine future offerings and position chambers as long-term sustainability champions in their regions.

Sector-Specific Decarbonization

Overview:

Accelerate progress in one high-impact sector such as food processing, manufacturing, construction, and tourism by supporting SMEs to collaboratively design and implement sustainability strategies.

Why this matters:

Sector-focused collaboration helps SMEs identify shared challenges and opportunities—turning sustainability into a driver of competitiveness. By working together, businesses can uncover practical solutions, reduce costs, and position their industries for growth in emerging green markets.

How it works:

Convene SMEs and industry partners within a chosen sector to co-develop actionable sustainability roadmaps, address common barriers, and share outcomes through collective learning and joint opportunities.

Inspiration:

Modelled on global best practices such as the UK's *SME Climate Hub* toolkits, Sweden's *Roadmaps for Fossil-Free Competitiveness*, and the *Race to Zero 2030 Breakthroughs*.

Bill C-59 Compliance as a Competitive Edge in Sustainable Sales & Marketing

Overview:

Help SMEs make credible, compelling sustainability claims that meet new regulatory standards while attracting new buyers and driving growth.

Why this matters:

With increasing scrutiny under Bill C-59, many SMEs hesitate to market their sustainability efforts for fear of greenwashing. This initiative turns compliance into opportunity—helping businesses communicate their true sustainability value, strengthen market trust, and enhance competitiveness in both domestic and export markets.

How it works:

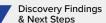
Support a small cohort of SMEs to refine their sustainability messaging, align with recognized frameworks, and test new positioning strategies that link sustainability to measurable business outcomes.

Inspiration:

Guided by international examples such as the EU's *Green Claims Directive* (2023), the UK's *AdGreen* initiative, and Canada's Bill C-59.







Export Edge

Overview:

Support New Brunswick SMEs to prepare for national and international expansion by building their capacity to meet market, regulatory, and sustainability requirements.

Why this matters:

As trade landscapes shift and sustainability becomes a key differentiator, SMEs need the knowledge and tools to compete confidently in global markets. This initiative equips business owners with practical guidance on meeting sustainability standards, enhancing traceability, and unlocking growth opportunities abroad.

How it works:

Provide targeted coaching, tools, and partnerships to help SMEs strengthen ESG reporting, develop export strategies, and connect with international buyers through coordinated support from mentors, trade and innovation partners.

Inspiration:

Informed by initiatives such as the Enterprise Europe Network (EEN), Interreg Europe's SME Internationalisation Programs, and the EU Green Deal and Horizons Europe frameworks.

Decarbonization Dialogues

Overview:

Support New Brunswick SMEs in navigating political and policy uncertainty through a facilitated dialogue series focused on aligning decarbonization with Moncton's economic growth and future competitiveness.

Why this matters:

SMEs face complex choices amid changing regulations, rising energy costs, and evolving market expectations. This initiative builds clarity and confidence around decarbonization—helping business owners identify priorities, anticipate policy shifts, and position themselves for future incentives, investments, and buyers.

How it works:

Deliver a facilitated engagement series that combines scenario planning, peer learning, and real-world case studies to help SMEs test strategies, share challenges, and co-create a shared vision for "smart green growth".

The Green Room

Overview:

Convene public, private, and philanthropic funders to align around a shared vision for financing New Brunswick's sustainability transition and to strengthen coordination across existing investments and funding programs.

Why this matters:

Funders and financiers across sectors often share similar goals but operate independently, creating duplication and missed opportunities for collective impact. The Green Room provides a space to ask key questions: Where are we collectively investing? What outcomes are we each seeking? How can we coordinate to unlock greater value and reduce fragmentation? By fostering shared understanding and strategy alignment, this initiative aims to catalyze more efficient, targeted, and impactful investment in New Brunswick's green economy.

How it works:

Host a series of facilitated sessions that bring together funders, investors, and government partners to map current funding streams, identify gaps and overlaps, and explore mechanisms for joint action or co-investment. Insights and recommendations will be summarized in a coordination roadmap to guide ongoing collaboration.

Inspiration:

Draws from models such as the UK's *Green Finance Institute*, Canada's *Social Finance Fund Collaboratives*, and the EU's *Just Transition Mechanism* for coordinated green investment.





Prototype Summary Table

PROTOTYPE NAME	LINK TO VISION OF SUCCESS	LINK TO KEY FINDINGS	WHO IS IT FOR?	WHO COULD OWN FUTURE ITERATIONS?	POTENTIAL KPIS
Lighthouse Industry Spotlights	Builds confidence by showcasing real-world examples of sustainability success and competitiveness in NB industries.	SMEs lack shared understanding of what sustainability means in practice. Peer examples build awareness and trust.	SMEs in all sectors (esp. Stages 1–5 of Readiness Continuum).	Chambers of Commerce, sector associations, and Green Horizons partners.	# of case studies produced; engagement rate; % of SMEs reporting increased understanding or confidence.
Chambers of Commerce as Sustainability Champions	Embeds sustainability knowledge into trusted local business networks.	SMEs need accessible, credible, and localized training to take first steps.	SMEs in early readiness stages; Chamber leaders.	Local Chambers of Commerce; Sustainable Innovation Academy (SIA).	# of chambers trained; # of SMEs completing training; % increase in SME sustainability literacy.
Sector-Specific Decarbonization	Strengthens sector competitiveness by addressing shared barriers to sustainability adoption.	Many SMEs face similar challenges within sectors and need collaborative solutions.	SMEs in priority sectors (food, manufacturing, construction, tourism).	Industry associations; ONB; sector councils.	# of sectors engaged; # of shared roadmaps created; # of collective actions implemented; cost savings identified.
Bill C-59	Positions sustainability as a competitive advantage through credible, verifiable claims.	SMEs fear greenwashing; need support communicating sustainability value confidently.	SMEs in consumer-facing sectors; marketing teams.	Chambers of Commerce; NBIF; business accelerators.	# of SMEs improving ESG claims; improved customer perception metrics; # of new markets accessed.
Export Edge	Enhances global competitiveness by aligning export readiness with sustainability standards.	SMEs need tools and coaching to meet new global trade and ESG requirements.	SMEs pursuing national or international expansion.	ACOA; Opportunities NB; Trade Commissioner Service.	# of SMEs completing export readiness plans; # of new export deals; # adopting sustainability reporting tools.



Decarbonization Dialogues	Builds clarity and momentum for decarbonization through dialogue and shared understanding.	SMEs face uncertainty around policy direction and energy transition priorities.	SMEs in Moncton region; muni- cipal leaders; policymakers.	City of Moncton; PDC; Chamber of Commerce.	# of dialogues held; # of SMEs participating; reported increases in clarity and action planning; # of new partnerships formed.
The Green Room	Aligns funders and investors around a shared sustainability vision for NB.	Funding ecosystem lacks coordination; shared priorities and alignment are needed.	Public, private, and philanthropic funders; government partners.	ESIC; PDC; NBIF; ACOA; private foundations.	# of funders engaged; # of coordinated investments identified; # of collaborative actions launched.



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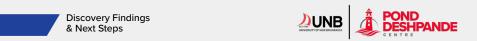
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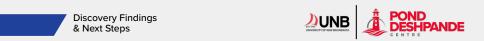
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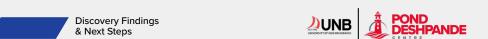
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Key Terms & Definitions

Canadian Net-Zero Emissions Accountability Act: Federal legislation (S.C. 2021, c. 23) that enshrines Canada's 2050 net-zero target into law, establishes interim milestones, and mandates progress reporting.

Carbon Footprint: The total volume of GHG emissions—across Scopes 1, 2, and 3—associated with an organization, product, or activity, typically expressed in tons of CO₂-equivalent.

CBAM (Carbon Border Adjustment Mechanism): EU policy levying carbon "tariffs" on imported goods based on their embedded emissions.

CETA (Comprehensive Economic and Trade Agreement): Canada-EU free trade deal that underpins market access.

Circular Economy: Economic model aimed at eliminating waste and continually using resources through reuse, repair, remanufacture, and recycling.

Climate Adaptation: Strategies and measures to manage the effects of climate change by minimizing risks and exploiting beneficial opportunities.

Concept: an initial idea or abstract approach to address a particular challenge.

Decarbonization: The process of reducing carbon intensity—in operations, supply chains, and products—through measures such as energy efficiency, fuel switching, electrification, and adoption of low-carbon technologies.

Diffusion of Innovation: A theory describing how, why, and at what rate new ideas and technologies spread through cultures.

Energy Efficiency: Practices aimed at reducing the amount of energy required to provide products and services.

ESG (Environmental, Social, Governance): A common framework investors and buyers use to assess corporate sustainability performance.

GHG (Greenhouse Gas): Any gas that traps heat in the atmosphere, contributing to the greenhouse effect. Key GHGs include carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O).

Greenhouse Gas Protocol: The leading international standard for measuring and managing corporate GHG emissions, which categorizes emissions into three "scopes": Scope 1: Direct emissions from sources owned or controlled by the company (e.g., on-site fuel combustion); Scope 2: Indirect emissions from the generation of purchased energy (e.g., electricity, steam); Scope 3: All other indirect emissions across the value chain (e.g., supplier activities, business travel, product use).

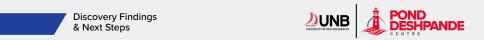
Greenhushing: The practice of deliberately withholding or downplaying information about a company's environmental, climate, or sustainability efforts, typically to avoid scrutiny, criticism, or potential legal risks associated with greenwashing claims. This phenomenon can occur when businesses perceive the risks of public disclosure to outweigh its reputational or market benefits.

Greenwashing: The practice of making unsubstantiated or misleading claims about the environmental benefits of a product, service, or company to appear more environmentally friendly than reality.

Human-Centred Design (HCD): An iterative "double-diamond" methodology used by the Green Horizons Lab, comprising four phases—Understand, Define, Explore, Create—to ensure solutions are grounded in users' real-world needs and contexts.

MNE (Multinational Enterprise): A large company that controls assets, operations, or subsidiaries in more than one country, coordinating production, investment, and strategic activities across national borders. In the context of Green Horizons, MNEs are anchor buyers whose sustainability requirements and co-investment can drive upstream SMEs to adopt and scale greener practices.

Net-Zero Emissions: A state in which any remaining GHG emissions are balanced by equivalent removals via carbon capture technologies or natural sinks (e.g., forests), such that the net contribution to atmospheric GHG concentrations is zero.



Pilot: a formal trial of a solution with a limited group of end users, conducted under real-world conditions before a broader rollout.

Prototype: an early-stage model designed to test and refine functionality in a low-risk, cost-effective manner.

Resilience: an organization's capacity to anticipate, prepare for, respond to, and recover from climate-related disruptions (e.g., extreme weather, supply-chain shocks) while maintaining core functions.

Return on Investment (ROI): a metric for evaluating the efficiency or profitability of an investment, critical for SMEs assessing sustainability projects.

Scope 1 Greenhouse Gas Emissions: direct emissions from sources owned or controlled by a company, such as fuel combustion from company vehicles, boilers, or on-site manufacturing processes.

Scope 2 Greenhouse Gas Emissions: indirect emissions resulting from the generation of purchased energy, including electricity, steam, heating, and cooling consumed by the company.

Scope 3 Greenhouse Gas Emissions encompass all other indirect emissions that occur across a company's value chain, including supplier activities, business travel, transportation and distribution, waste disposal, and even customer use of sold products.

SME (Small and Medium-sized Enterprise): a business with fewer than 500 employees, broken down by Innovation, Science and Economic Development Canada (ISED) into: Small: 1-99 employees, and Medium: 100-499 employees.

Social Innovation Lab: a structured, participatory process that brings together SMEs, government, researchers, and other stakeholders to co-design, prototype, and test practical solutions for complex challenges—here, focused on SME sustainability and competitiveness.

Supply Chain Transparency: the practice of collecting, managing, and sharing data on environmental and social impacts across a product's lifecycle and supplier network, enabling compliance with standards (e.g., CBAM, CSRD) and informed procurement decisions.

Value Proposition: the promise of value to be delivered to customers, often linked to how a firm's sustainability practices can drive competitive advantage.



Discovery Findings

& Next Steps



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