

February 2022

Western Nova Scotia MIT REAP Strategy



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1. OBJECTIVES

What is Innovation and how does it drive Entrepreneurship?

For western Nova Scotia, innovation is the creation, development and implementation of a new product, process or service, intending to improve efficiency, effectiveness or competitive advantage.

Innovation could be about making something that is used regularly more user-friendly—more conscientious of the user. This form of innovation is similar to building a boat that is more user-friendly in which the crew never have to bend down to perform their onboard duties.

Innovation is also about those true game-changers: Be it a novel product or something that is transformative and that completely changes how products, processes, and/or decisions are made. This often is the rarest form of innovation but often is the most impactful.

Innovation drives entrepreneurship in several ways, but in its purest form, innovation helps to differentiate a business or a region from the competition. It helps to elevate new ideas to become real viable business opportunities, whether in the form of growing or improving an existing business or starting a new business.

1.1. Western Nova Scotia's REAP Leadership Team

The development of this strategy was led by a group of dedicated community leaders representing the five REAP Stakeholder Groups. More specifically:

Government Representatives:

Pam Mood, Team Champion - Mayor of the Town of Yarmouth

Angélique LeBlanc - Team Manager, CEO Western REN

Natalie Smith - Director of Planning and Economic Development for the Town of Yarmouth

Education Representatives:

Dr. Kenneth Deveau - VP of Academic Research and professor at Université Sainte-Anne

Mary Thompson - Principal for 3 local NSCC campuses

Corporate Representatives:

Angie Greene - CPA and founding partner at Conrad Cushing Bain Inc

Nick d'Eon - CA and CFO for Scotia Harvest Inc

Entrepreneur Representatives:

Gilles Theriault - Managing Director of AF Theriault & Son Ltd

Doug Jones - CEO and Founder of Ignite Labs

Risk Capital Representative:

Rick Doucette, CEO of Coastal Financial Credit Union

Western Nova Scotia MIT REAP Strategy



Pam Mood



Angélique LeBlanc



Natalie Smith

Government/Economic Development



Dr. Ken Deveau



Mary Thompson

University



Angie Greene



Nick d'Eon

Corporate

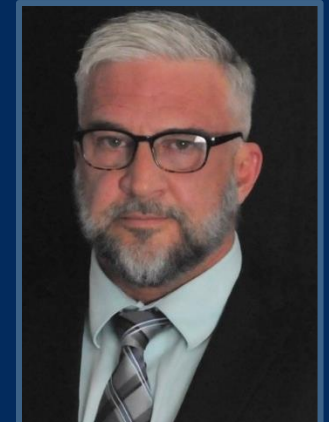


Gilles Theriault



Doug Jones

Entrepreneur



Rick Doucette

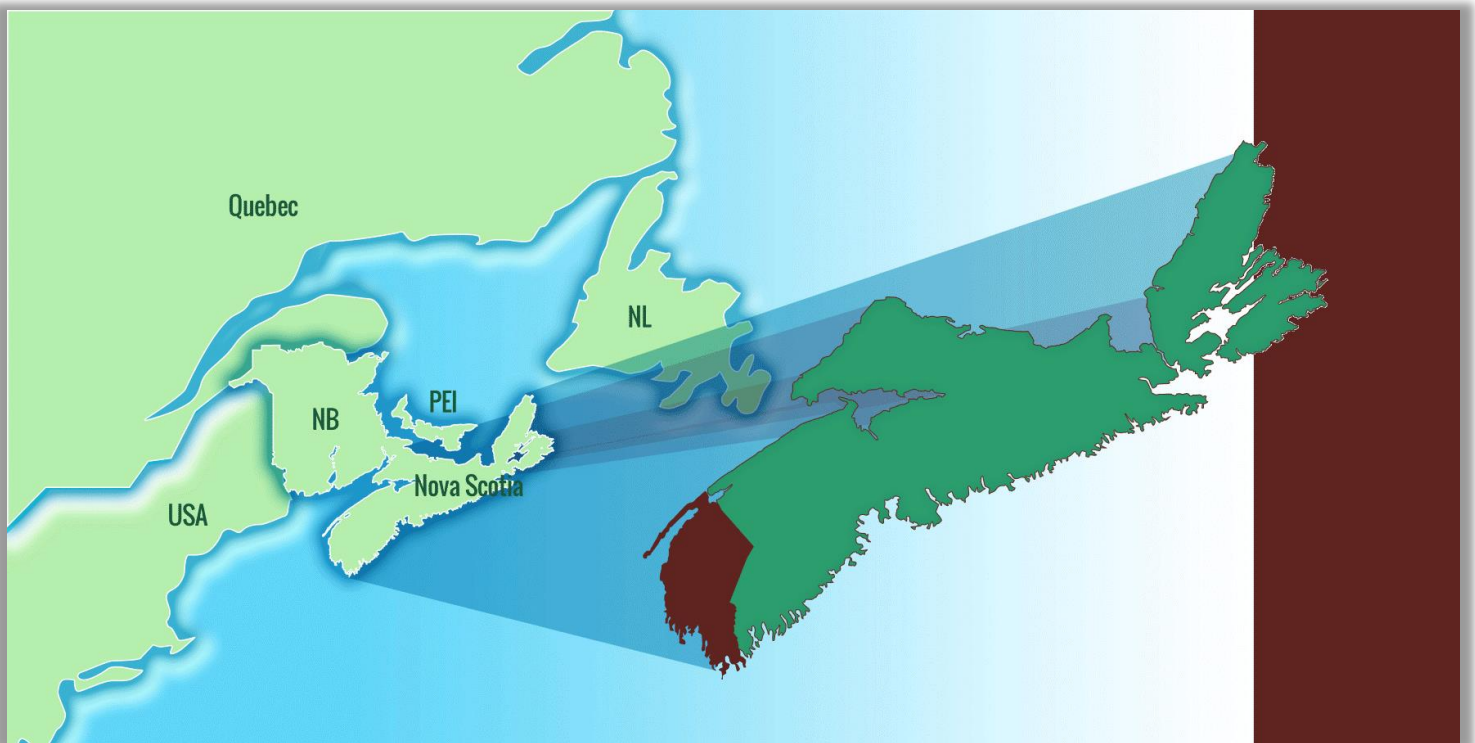
Risk Capital

1.2. Why Western Nova Scotia?

Nova Scotia's western region offers residents and businesses significant opportunities due to its abundance of natural resources, unique geographical position, and ability to leverage these assets through its strong local infrastructure and innovative spirit. At the same time, its co-dependence on the fishing sector – the region's primary economic driver – potentially leaves it vulnerable to environmental and climate-related shocks in the future, while underlying socioeconomic realities and a lack of strategic planning suggest the region must begin to prepare itself more deliberately for future opportunities and threats.

Addressing these challenges and maximizing available local assets will be paramount to the region maintaining its current strong quality of life relative to other regions both in Nova Scotia and the maritime provinces. Overall, the opportunities available within the region far outweigh the potential downsides, but regional stakeholders mustn't let those opportunities and natural strengths go to waste.

Western Nova Scotia is a globally renowned fishing region, with a highly developed ecosystem of over 1,100 companies including MSC (Marine Stewardship Council) certified fisheries and niche producers. Unparalleled greenfield opportunities in the marine sector are provided, with creative entrepreneurs, innovative boatbuilders, artificial ecosystem development and a world-class R&D network.



2. COMPARATIVE ADVANTAGES

2.1. Strengths

Western Nova Scotia's comparative advantages are essentially the strengths of the region and assets that can be leveraged to assist the region in its pursuit of Innovation Driven Entrepreneurship (IDE).

2.1.1. Marine Sector

The western Nova Scotia region is supported by a dynamic marine sector that is a major economic driver for both Nova Scotia and the entirety of Canada. Moreover, within the region, a large number of jobs exist within lobster fishing and seafood processing, offering competitive, sustainable employment for local residents. Finally, compared to the region's closest competitors, the region ranks #1 in specialized boat building and boat building attractiveness. Overall, the marine sector within the western Nova Scotia region is a significant local asset.



2.1.2. Natural Resources

The region is blessed with an abundance of natural resources, including significant solar exposure (offering the potential to help lead Canada's solar energy sector), enough wind generation to derive substantial wind energy naturally (which already supplies energy to the region), and the highest tidal ranges in the world at the Bay of Fundy.

Regional stakeholders have also proven to be adept at utilizing these natural resources, having a proven distributed energy model at Université Sainte-Anne and having an anaerobic digester helping create energy from organic waste. Moreover, local renewable energy sectors solar, wind, and tidal are all emerging as economic forces. These natural

resources, coupled with the clear desire of regional stakeholders to embrace and utilize these assets, make clear that the natural resources are a unique asset for the community compared to surrounding areas.



2.1.3. Innovation and Advanced Education

The first two strengths make note of the abundant marine and natural resources available within western Nova Scotia. However, those opportunities are only potential assets as long as residents and stakeholders are willing to leverage them and turn them into strengths. Fortunately, within the region, there is a definite willingness to embrace innovation. Specifically, between 2018 and 2020 western Nova Scotia saw 35 new business start-ups with a survival rate of approximately 70%. Moreover, 40% of these firms are already creating jobs, and 7% are classified as high-growth.

Concerning higher education, there are three Nova Scotia Community College campuses within the region, the Université Sainte-Anne, and the Dalhousie School of Nursing. Being home to five post-secondary institutions suggests that western Nova Scotia supports the higher learning aspirations for current residents and potential residents who grew up outside the region.

Finally, two local organizations help to bridge academia and industry to address local challenges (Sandbox) or support new business growth (Ignite Labs). These types of innovative supports are critical for local entrepreneurs and researchers and will help the region continue embracing the innovative spirit needed to tackle future problems.

2.1.4. Geography

Western Nova Scotia has a geographical advantage due to its positioning on the east coast of Canada, while also having the necessary infrastructure to take advantage of it. Specifically, its geographic positioning means that businesses in the region can conduct business in Europe and along the west coast of North America on the same day.

Moreover, it is closer physically to Europe compared to Canada's population hubs (e.g., Toronto, Calgary, or Vancouver), while still maintaining access to northern US markets.

Having the necessary infrastructure is paramount when considering how valuable these assets potentially are. Fortunately, within the region, there is access to one international and one regional airport, one international ferry, one interprovincial ferry, two interprovincial ferries, two 100-series highways, and multiple wharves with varying vessel capacities. These critical pieces of infrastructure ensure that western Nova Scotia residents and businesses are fully able to reap the benefits of the advantageous geographical positioning of the region.

2.2. Weaknesses

Whereas western Nova Scotia's comparative advantages are essentially the strengths of the region, this REAP Strategy is aimed at addressing or overcoming weaknesses in the region to best create an environment geared toward Innovation Driven Entrepreneurship.

2.2.1. Fishing Overdependence and Increasing the Region's Exports

Though the marine sector is a clear strength for the region, certain aspects loom as potential challenges. For example, the dependence on fisheries means that the region is, and will remain, subject to the whim of external influences that are uncontrollable (e.g., climate change). Moreover, many jobs associated with seafood processing are at high risk of automation, potentially imperiling the workforce. These potential exogenous impacts mean that the region must have plans in place to adequately address potential shocks in the short, medium, and long term.

Strategic Response:

Help protect and strengthen the resiliency and sustainability of the marine industry while supporting growing industries (renewable energy). Assist local businesses and entrepreneurs across different industries in using innovation as a tool to grow their products to include maxing out the Nova Scotia market while preparing to move beyond western Nova Scotia.

2.2.2. Underlying Socioeconomic Shifts and the Link to Shrinking and Unfocused Labour Markets

The demographics of the region suggest that future challenges related to the socioeconomic makeup of the region will be a significant hurdle to overcome. For example, it is critical that actions are taken regarding current downward trends in school enrolment and doctor recruitment, a loss of housing stock, and deteriorating infrastructure. Moreover, a recent report by Atlantic Provinces Economic Council suggested that “income and education levels are relatively low, unemployment is high, and the population is declining.” Acknowledging and addressing these socioeconomic patterns will be important to ensure a strong economic future for the region. Recent data indicates population in some areas of the region is beginning to tick upwards, a trend which must continue to be fully supported.

Strategic Response:

Identify and use both technology and innovation to help solve the region’s labour force limitations.

2.2.3. Lack of Cohesive Strategic Direction

Though the initial steps of deliberate regional strategic planning are underway in the form of this strategy and other regionally focused collaborations, significant challenges remain. Specifically, many local and regional stakeholders remain pulling in different directions, working either in isolation or in conflict rather than moving forward as a cohesive group. Working to solve those differences would be a vital step towards engineering successful planning. This is imperative when the region focuses on addressing long-term challenges (e.g., whether there will be a significant enough lobster population to support the fishing industry over the next 5, 10, or 20+ years).

Strategic Response:

Continue with the implementation of priority actions identified with this REAP Strategy.

2.2.4. Struggle to Promote a Culture of Innovation

The western region of Nova Scotia is rich with long-standing businesses built through hard work, dedication and innovation. Many of these businesses have been such a traditional mainstay in the region that have been relied upon heavily by many generations of families as their main source of economic stability. Unfortunately, both these and new businesses are often overlooked in terms of any innovative approach they have taken throughout their tenure.

Often the innovators – role models – within western Nova Scotia are overlooked or the impacts they have made to the community are taken for granted.

Strategic Response:

Continuing growing a culture of innovation through continued positive messaging, mentorship and demonstrated entrepreneurial success in the region.

3. STRATEGY

The below strategic directions and accompanying actions are geared toward highlighting the importance of innovation in western Nova Scotia as well as bringing forward opportunities to both increase and improve the amount of Innovation Driven Entrepreneurship within western Nova Scotia.

3.1. Using Technology and Innovation as Labour Force Solutions

Actions:

Linking Education, Training and Talent Recruitment with the Region's Priority Economic Sectors

- Create an inventory of the marine-based training and certification programs in western Nova Scotia.
- Identify any gaps or opportunities in the local training and certification programs.
- Seeking out and fostering opportunities to integrate regional priority economic sectors and innovation content in secondary and postsecondary academic programming.
- If there are gaps or opportunities, create the rationale (business case) for locating the programs in western Nova Scotia.
- Use the rationale as a part of the strategic lobbying efforts requesting government decision-makers and training authorities physically locate new or needed training programs to western Nova Scotia.
- Leveraging these programs to attract, retain and mobilize students and highly qualified personnel.

Stakeholder Groups: Government, Education, Corporate

Creating an Innovation to Entrepreneurship "Pathway"

- Working within the Innovation Driven Entrepreneurship continuum and network, document and chart out the typical step by step process that an entrepreneur might follow when trying to commercialize their innovation (i.e., Discovery, Exploration, Execution as an example).
- Identify all the supports and partners/organizations involved in each step of the innovation to commercialization process.
- Add names and contact information for each organization involved in the various steps.
- Build out a supplemental document that outlines the many aspects, supports and agencies involved with and related to the attraction and retention of people/talent in western Nova Scotia.

- Create a navigational system that provides an easy-to-use directory and guide of not only the process but of the “who does what” to support entrepreneurs (including the attraction and retention of talent) along their journey.
- Use the information gathered and the navigational system created to develop online tools (i.e., Umbrella website or online portal) geared toward presenting an easy-to-use platform that can be shared amongst all Innovation Driven Entrepreneurship regional supports.

Stakeholder Groups: All stakeholder types – Government, Corporate, Entrepreneurs, Education, Risk Capital

3.2. Growing and Recreating a Culture of Innovation

Actions:



Engaging Western Nova Scotia in a high-intensity IT, software development, programming, design, biosolution exploration event

- Host an annual Hackathon event (i.e., Fishing for Solutions).

Stakeholder Groups: Education, Entrepreneurs, Government



Impactfully Communicating the Benefits of and the Need for Innovation

- Aiming at motivating the region to embrace, celebrate and highlight innovation and the positive changes it builds within the region, create an education and communication action plan.
- The action plan could include:
 - Creating an easy-to-understand definition of “what innovation means”;
 - Celebrating innovative entrepreneurs – showcase them to inspire others;
 - Celebrating local business success;
 - Advocating for innovation and trying to reduce stigma and fear of new things;
 - Business spotlights;
 - Company tours and open houses;
 - Push out more social media and advertising focusing on innovation in the region; and/or
 - In-school innovation and entrepreneur programs (i.e., Science fair).

Stakeholder Groups: All stakeholder types – Government, Corporate, Entrepreneurs, Education, Risk Capital



Identify a Leadership Group to Continue Spearheading the Region's Innovation Driven Entrepreneurship

- As collective leadership is typically viewed as a group of people working together to achieve a common or shared purpose, creating a leadership group to continue with the implementation of this Strategy

Stakeholder Groups: All stakeholder types – Government, Corporate, Entrepreneurs, Education, Risk Capital

3.3. Moving Entrepreneurs to Think Beyond Traditional Products and Markets

Actions:



Identify and Pursue Opportunities in the Region's Highest Performing Economic Sectors

- Working with the region's business community, NSBI and ACOA, map out the local supply chain (including research and innovation) for the region's highest priority economic sectors (ie. Seafood and Renewable Energy as examples)
- Identifying gaps and opportunities with the region's supply to maximize local companies supporting the local economy
- Working with the region's business community, NSBI and ACOA to identify out of region, out of province and out of country opportunities and markets
- Creating a marketing and communications program aimed at positioning and promoting the region as the ideal location for industry research and innovation in the marine sector and renewable energy

Stakeholder Groups: Government

4. SCOPE

The scope of this Strategy is first and foremost regional, focusing specifically on western Nova Scotia. This Strategy was built through an exhaustive grassroots effort at the community level, engaging a strong cross-section of government, industry and community leaders. In doing so, this project included both public and private sectors, with a strong focus on identifying innovative opportunities that will drive entrepreneurship.

The Strategy, if executed properly, will have positive impacts on the individual and broader community at both regional and provincial levels. Understandably, the success of western Nova Scotia businesses and communities will support growth opportunities across the province.

Ideally, in successfully implementing the actions identified through this project, key stakeholder groups will work together across both regional and provincial levels. This effort will be collaboratively led by all those stakeholder representatives that helped drive this Strategy: Government, Corporate, Entrepreneurs, Education, and Risk Capital.



WESTERN NOVA SCOTIA REAP STRATEGY PICTURED

Western Nova Scotia

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COMPARATIVE ADVANTAGES



Marine Sector



Natural Resources



Innovation and Advanced Education



Geography

Using Technology and Innovation as Labour Force Solutions



Actions

- Linking Education, Training and Talent Recruitment with the Region's Priority Economic Sectors
- Creating an Innovation to Entrepreneurship "Pathway"

Growing and Recreating a Culture of Innovation



Actions

- Engaging Western Nova Scotia in a high-intensity IT, software development, programming, design, biosolution exploration event
- Impactfully Communicating the Benefits of and the Need for Innovation
- Identify a Leadership Group to Continue Spearheading the Region's Innovation Driven Entrepreneurship

STRATEGIC FOCUS



Moving Entrepreneurs to Think Beyond Traditional Products and Markets

Actions

- Identify and Pursue Opportunities in the Region's Highest Performing Economic Sectors

APPENDIX A - WESTERN REGION STAKEHOLDERS

