



**SAINT JOHN: DRIVING  
COMMUNITY & EXPORT  
SUCCESS WITH DATA ANALYTICS**

WHITE PAPER  
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## **Driving Community & Export Success with Data Analytics**

This white paper explains Saint John's data analytics and innovation strategy, its potential to support your business growth and how to get started.

### **Saint John is a city of firsts**

Being first is nothing new to Saint John. The city is home to more national firsts than any other community in Canada. It was the first community in British North America to be granted local self-rule way back in 1785 soon after the Loyalists arrived as refugees from the American Revolutionary War.

Saint John would remain the only self-governed municipality for 50 years and during that time its successive mayors, councils and wider business community worked together to finance and build what we today would recognize as the foundations of a modern city. Together they established Canada's first chartered bank, the Bank of New Brunswick; the first public water system; first police force; first public high school; first fire insurance company; first penny newspaper; first 12-hour work day; first public library; and first public playground.

The city was an early leader in the development of digital technology because of collaborations between government, academia and the private sector, led by NBTel, now part of Bell Canada. NBTel was the first company in Canada to install a fully digital switching network in 1993. This digital technology enabled NBTel to aggressively develop new technologies, including the following Canadian firsts: voice mail (1993), the screenphone (1993), caller ID (1993) Internet service (1994), high-speed Internet on home computers (1996) and streaming video services over phone wires (1998).

The city is also home to some of Canada's most iconic family-owned businesses. Moosehead Breweries (1867), Canada's oldest independent brewery; Crosby's Molasses (1879), Canada's oldest independent molasses manufacturer; and the Irving family of companies, which includes Irving Oil, home to Canada's largest oil refinery and the first oil company in North America to produce ultra-low sulphur gasoline and diesel, five years ahead of regulations; and J.D. Irving Limited, the first forestry company in North

America to implement reforestation activities (tree planting) across its holdings and the first in North America to create a dedicated IT department.

Now Saint John is poised to be a national leader in data analytics to drive economic growth, business innovations, labour force expansion and foreign direct investment.

## **Introducing the Saint John Community Data Repository**

This cloud-based platform is the first in North America to bring together public and private sector data to enable businesses, start-ups, community organizations and governments to solve problems and/or work to develop new products and services. This will increase access to data for Saint John's public and private sectors, enhance decision-making and accelerate the development and commercialization of data-driven solutions. Following access to the Data Repository, clients will be encouraged to share and 'deposit' anonymized and aggregated datasets in the Repository to be made available for other projects. In turn, clients will be able to access the Repository in order to combine datasets from the Repository's multiple sources to gain deeper insights.

## **Real-Time Data**

Sensors are being installed throughout Saint John's urban core, known as the Uptown, to gather Bluetooth and wireless antenna data from mobile devices, which will be stored in the Community Data Repository and able to be access by clients.

The repository provides clients with three key supports:

- access to a big data platform to analyze and store data;
- access to a variety of data sets, which can be used on their own or be integrated with own-sourced data to develop solutions to company, industry or community challenges;
- access to data scientists and data analytics tools, if required, to analyze the data and produce new insights and information to help companies and community organizations increase revenue and efficiencies.

The Smart and Connected Community Data Project builds upon Saint John's culture of collaboration and connectedness. Multi-sectoral networks will develop export-focused products and services, supported by the region's high speed digital network and infrastructure.

### **What will it do?**

- Change the way public and private organizations in Saint John think about data and the value of sharing data.
- Make it easier to assess a question, determine best next steps and then evaluate results over time.
- Increase the ability for any organization to access data sets that, normally, would be difficult to access.
- Enhance decision making related to public and private investments.
- Encourage and accelerate investments in the city by providing justifications for investments in way most other communities simply cannot do.
- Uncover and accelerate the commercialization of data driven solutions which come out of the Proof of Concepts.
- Become a model for how other regions can use data to promote growth and investment in their communities.

### **A Strong Community Data Strategy needs Strong Governance**

Success is predicated on the development of effective, yet flexible, governance structures to define how data is collected, stored, shared and used. Governance models that will need to be developed include, but are not limited to

- Data Sharing Agreements
- Privacy standards including processes for anonymizing data and ensuring Personally Identifiable Information (PII) is never published
- Model for who will have access to the platform and what requirements they will need to have (related to full access to platform, not access to published open data)
- Structure for determining what data can be made "open" and available to anyone and what data needs to be held more securely

We get started in 2018 with seven to eight proof of concept projects. Priority will be given to projects that solve an industry or a community problem and are likely to produce export-oriented products and/or services.

### **Benefits of Saint John's Collaborative Business Culture**

People, technology and location: Saint John has the right mix to support a culture of innovation through collaboration that has produced significant results and return on investment for business that set up shop here.

### **Drives development of export-focused new products and services via local collaboration**

In 2010 Innovatia launched a new procedure software product called Procedure Accelerator for clients who manage large volumes of operational processes, procedures, and instructional training content. It was developed alongside Irving Oil, which as a first adopter client, provided Innovatia with the space and time to develop the initial product and the feedback to help it to refine it to serve a new market – the energy sector. Procedure Accelerator is a mobile tool and ensures that operators on the front lines are using the most up to date version of their procedures and that procedure use is tracked digitally and in real time. As clients begin implementing Procedure Accelerator into their business, they begin tracking data that was previously not being captured, shedding light on how to solve their most prominent business challenges, such as bottlenecks. Working with clients to solve their most challenging problems has led to Procedure Accelerator becoming a critical part of business processes for leading energy companies around the globe. Creating success for clients has also allowed Innovatia's Procedure Accelerator division to grow, now employing more than 20 people.

### **Supports data-focused start-ups to identify technology partners anywhere in the world**

T4G helped regional start-up Ortho MX Technologies to convert two decades of specialized researching into a new medical testing app, InStride, which is now being used in-clinic by surgeons and physiotherapists and is available on the Apple App Store. T4G was able to provide a very specific mix of advanced analytics incorporating IoT, UX and mobile development

skills via a development team that include staff in its Saint John office. The result is a new innovative approach to improving the patient experience and outcomes for hip and knee arthroplasty patients. T4G continues to work with OrthoMX to help commercialize InStride and explore other opportunities to apply modern technology to challenges in the healthcare space.

### **Enables data-driven innovations and increases efficiencies for export-focused companies**

J.D. Irving Limited was the first forestry company in Canada to build and maintain a Geographic Information Systems (GIS) and Global Positioning Systems (GPS) technology in the 1980s and today it is using new light detection and ranging (LiDAR) to obtain even more detailed terrain mapping, forest inventory and operational planning improvements. LiDAR is like an MRI of the forest and J.D. Irving use it to measure dozens of forest characteristics such as tree height, number of trees and more. It is so accurate that foresters can know the height of a tree to within 10 cm and depressions on the ground to within 3 cm. From this information J.D. Irving prepares a forest management plan to sustainably manage for multiple values including: watercourses; wildlife habitat; recreation areas; timber supply; road maintenance; silviculture; biodiversity; fire control. Today's forester uses GPS to update forest management activities with greater frequency and accuracy than ever before. GPS technology on harvesting equipment is also used to track actual harvest levels.

### **Attract companies to establish offices and enable labour force expansion in Saint John**

Cardinal Path has established an office in Saint John and will create up to 100 full-time positions, attracted here by the collaborative business culture and the access to high-skilled talent through the province's universities and community colleges. The University of New Brunswick is home to Canada's first engineering and computer science schools and was the first in Canada to offer training in software engineering. Its campus in Saint John has one of the most successful business coop programs in Canada, with a placement rate over 90 per cent. Cardinal Path is part of the Dentsu Aegis Network, a global marketing group specializing in media, digital and creative communications services.

## **Solve local problems and leverage that to move into new markets**

Saint John start-up Shift Energy and the City of Saint John worked closely to develop a software tool to help the municipality reduce its energy use. In 2005 it began to use Shift Energy's innovative software tool to remotely monitor energy use in municipal buildings. The result was the municipality was able to adjust its consumption patterns and reduce energy use by 35 per cent, which earned the City a number of national and regional awards for its innovative approach to energy efficiency. Shift Energy gained a strong early adopter story that enabled it to seek out new partnerships such as its successful work with the Vancouver Canucks. Shift Energy partnered with Rogers Arena, home of the Canucks to be the first implementer of Intelligent Live Recommissioning and to build the new product, entitled EOS, together. Since the start of the project, Shift Energy has developed and deployed EOS at the Rogers Arena, effectively trimming 20 percent of energy cost from the facility.

## **Become a Part of Saint John's Export-driven Collaborative Technology Community**

If you are ready to accelerate your business growth and want to take advantage of Saint John's collaborative business culture, its location to export markets and its specialization in data analytics, we are ready to talk with you. Contact Janet Scott at [janetscott@enterprisesj.com](mailto:janetscott@enterprisesj.com)