

# GLOBAL VENTURES MAGAZINE

CONNECTING SASKATCHEWAN BUSINESS WITH THE WORLD.

PM# 42591019

VOLUME SEVENTEEN ISSUE THREE • FALL 2023

## ON THE COVER:

Spotlight on the **Technology, Resources, Mining & Services** Sectors

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**Brew Ninja:** A Software Solution that Keeps Breweries Organized

**Prairie Clean Energy:** Providing the World with Sustainable Biomass Fuel

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**Karri Howlett Consulting:** Creating Value with Sustainable Strategies

**Rayhawk:** Digital Smarts, Mechanical Dexterity and Autonomy

**SRC:** Helping Saskatchewan Reach its Current and Future Goals

**Western Heritage:** Reflecting on Archeological Projects and Achievements



# SUSTAINABILITY PROGRAMMING

It's time to tell YOUR story!

## Sustainability Promotion Program (SPP)

As a temporary funding program designed to promote the innovative products, technologies and services of Saskatchewan exporters in domestic and international markets, SPP provides travel assistance to lower the costs and risks of attendance and promotion at sustainability-focused trade shows.

Activities or events must have a clearly stated focus or requirement for sustainability as part of the program and a commercial program.

## ESG Strategy Support Program

The ESG Strategy Support Program is a temporary funding program available to assist STEP members in developing ESG initiatives to support their export market development.

This program may support the costs of engaging services of an ESG consultant to carry out initiatives such as:

- Undertaking an ESG baseline assessment
- Creating an ESG strategy or program
- ESG Program implementation and reporting
- Brand/Marketing development of the sustainability strategy as part of an export market development plan

*These programs and services are provided in concert with funding from Saskatchewan Ministry of Trade and Export Development.*

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# GV

VOLUME SEVENTEEN ISSUE THREE • FALL 2023

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# CONNECTING SASKATCHEWAN BUSINESS WITH THE WORLD

**SASKATCHEWAN** has what the world needs – food, fuel, and fertilizer (and some would add a fourth “f” – forest products). While accurate, this portrayal doesn’t fully capture the incredible Saskatchewan service and technology opportunities in demand around the world.

“As the world adapts to change, so do STEP services to best assist our members”

In this edition of GV, we highlight STEP members in mining, engineering, electrical, environmental remediation, as well as software products and services. These Saskatchewan innovators and innovations are changing the world one idea at a time.

As the world adapts to change, so do STEP services to best assist our members. With inflation pushing the cost of travel upward, funding maximums for our Market Access Program (MAP) have been raised. Now, per fiscal year, Regular Members may receive up to \$8,000 in MAP funding and Premium Members may receive up to \$10,000. Two new Sustainability programs have been rolled out: the Sustainability Promotion Program (SPP) to provide

travel assistance to lower the costs and risks of attendance and promotion at sustainability-focused trade shows and the ESG Strategy Support Program, a temporary funding program available to assist STEP members in developing ESG initiatives to support their export market development.

The incredibly busy fall season of trade missions is an early indication of another year of successful connections – for the four “f”s as well as for our tech/services industries. We look forward to reporting these connections at STEP’s Annual General Meeting and business luncheon on October 5, 2023. 



STEP Sustainability Promotion Program (SPP) QR Code



Chris Dekker  
President & CEO, STEP

## CEO REPORT

## BOARD OF DIRECTORS

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Crestline Coach Ltd.  
Saskatoon



## Trade Accelerator Program

An innovative, hands-on four-day workshop held virtually and in-person, designed to accelerate the strategic development of small to medium-sized businesses, providing essential knowledge, resources and coaching to scale up, develop and execute an export plan to prepare for expansion into international markets.

### The TAP Advantage

TAP offers a range of skills, experience and individual mentoring and coaching across a broad spectrum of fields including legal, finance, global sales & marketing, taxation, logistics and more

33%

of companies start exporting or enter a new market after participating in TAP

Average growth of 21% on total sales after one year of program completion



69% of participants now export to markets like China, India, Mexico, Italy and Japan



96% of graduating companies felt better prepared for international business



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“Growing a business requires continual refinement. The TAP process has been instrumental in our ongoing development of items like our value proposition. We will put much of what we learn to work right away, whether it manifests itself in export opportunities or not.”

9 Mile Legacy Brewing Co., Ltd  
Saskatoon, Sk

Contact Angela Krauss, Senior VP, Marketing & Membership Development  
Saskatchewan Trade and Export Partnership  
306.787.9210 | [tapsask@sasktrade.sk.ca](mailto:tapsask@sasktrade.sk.ca)



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PROGRAM CREATORS



# BIZNOTES

STEP members who have noteworthy news are invited to share that information with **Global Ventures** for our BIZNotes section. For further information or to submit content, please contact Katya Tomlinson, Communications Specialist at [ktomlinson@sasktrade.sk.ca](mailto:ktomlinson@sasktrade.sk.ca).

## SREDA New CEO

The Saskatoon Regional Economic Development Association (SREDA) has announced the appointment of Erin Lawson as the organization's new CEO, becoming the first female CEO in their history.

Lawson joined SREDA in 2015, and recently served as the Interim CEO and Chief Marketing Officer. She was born and raised in Saskatoon and holds a Bachelor of Commerce degree from the University of Saskatchewan. She began her career managing the marketing and communications for Canadian Western Agribition, and after gaining experience in the agriculture industry, decided to return home to Saskatoon.

SREDA is a business development organization dedicated to fostering economic growth in the Saskatoon region.

## NEW SASKTEL President and CEO

Charlene Gavel was recently appointed the new president and CEO of SaskTel. She takes over the role from Doug Burnett, who announced his retirement in February.



Gavel has served as the company's chief financial officer for nine years, and prior to her start with SaskTel she held roles with the Regina Qu'Appelle Health Region and Information Services Corporation.

## WIEGERS FINANCIAL & BENEFITS Announces New CEO

Colton Wiegiers has taken over the helm of Wiegiers Financial and Insurance Planning Services Ltd. as the new CEO. This move follows many years of experience with the company, moving from positions in business development, to operations, and now to the CEO position.

Over the years Colton has come to know the clients, suppliers and partners on a personal level, and believes it's those relationships and the people behind them that is the driving force for the company in providing financial service excellence to clients.

The move puts to paper what has already been going on behind the scenes, with Colton and Pat Kyle, Director of Branch Operations, maintaining most of the day-to-day operations. The addition of Michael Carss to the leadership team and Randi Wiegers to the marketing and family side of the company solidifies roles and focus within the company.

## CANNORTH ACQUIRES NRSI Creating National Leading Environmental Services Provider

Canada North Environmental Services (CanNorth) recently completed its acquisition of Natural Resource Solutions Inc. (NRSI), combining two of the industry's top environmental firms in Canada. The acquisition brings together two highly respected firms with complementary capabilities in the environmental consulting industry. The addition of NRSI's aquatic, wetland and terrestrial biologists, GIS specialists and project managers significantly expands CanNorth's team of environmental experts. It also extends CanNorth's geographical reach and industry expertise.

CanNorth is one of the largest environmental service providers in Canada. It is owned by Kiutsaki Management Limited Partnership, the business arm of the Lac La Ronge Indian Band.

It provides technical skills and knowledge to protect the environment, satisfy regulatory requirements, and support communities.

ISRI provides a range of ecological services across Canada, serving clients in a wide range of sectors, such as natural heritage planning, land development, renewable energy, environmental assessments and monitoring.

## ABEX Award Recipients

Congratulations to STEP members who recently honored at the Saskatchewan Chamber of Commerce ABEX Awards.

Wiegiers Financial & Benefits received the Community Involvement; Precision AI, Innovation;; Phantom Light Distillery, New Venture; The Hill Companies, Saskatchewan Business Hall of Fame Inductee; and Tim Gitzel, Cameco Corp., Business Leader of the Year Award.



## SRC Helps Saskatchewan Reach Current & Future Goals



Solvent Extraction Cells. Photo: SRC

**THE SASKATCHEWAN RESEARCH COUNCIL (SRC)** is Canada's second largest research and technology organization, with 1,600 clients in 22 countries around the world. Since 1947, SRC has focused on delivering science and technology solutions that benefit Saskatchewan industries — helping to grow the local economy and keep communities thriving.

From a small group of researchers to a company of nearly 350 professionals, SRC continues to grow, helping the province address ever-evolving challenges, such as the energy transition and critical minerals demand. With established state-of-the-art laboratories and facilities, SRC has the expertise and infrastructure to support Saskatchewan's mining, energy and agricultural sectors and assess and respond to environmental concerns.

Last year was a milestone year for the Council, with many celebrations, including the ten-year anniversary of SRC's Climate Reference Station at the Conservation Learning Centre near Prince Albert, Saskatchewan; the 50th anniversary of SRC Geoanalytical Laboratories; and the grand opening of a new facility that consolidated SRC's mining and minerals operations.

Drawing on seven decades of specialized expertise, knowledge and experience with technology development and demonstration, SRC has its sights set on expanding and developing several large-scale industrial and resource-based projects that are relevant to Saskatchewan's growth on the global stage.

SRC is laying the foundation for a Rare Earth Element (REE) supply chain in Saskatchewan, with the development of a Rare Earth Processing Facility focused on mid-stream production — the first of its kind in Canada. The facility will house a Monazite Processing Unit, Separation Unit and Metal Smelting Unit that will produce rare earth oxides and didymium metals, key components of many modern technologies.

SRC has also designed and manufactured proprietary, commercial-scale solvent extraction cells for its Rare Earth Processing Facility

— making Saskatchewan one of a handful of jurisdictions in the world with this capability. These cells are being developed with automation algorithms to improve productivity and efficiency and manufactured at an SRC-operated fabrication facility.

As critical minerals become increasingly important for Saskatchewan and Canada, SRC is positioned to help grow the REE sector and establish an industry model for future commercial resource expansion in the province.

Along with growing the mining and mineral sector, SRC is focused on helping Saskatchewan diversify the province's energy mix. With decades of work on improving oil and gas extraction, developing hydrogen technology and helping to build Canada's first utility-scale hybrid energy storage system, SRC is ready to tackle new energy challenges.

Working with Westinghouse Electric Canada, SRC is looking to advance very small modular reactors (micro-reactors) in Saskatchewan, which are safe and transportable, creating a customizable solution for the province's unique clean energy needs. For 38 years, SRC safely operated a SLOWPOKE-2 nuclear research reactor that was used as an analytical tool. The reactor was successfully and safely decommissioned in 2021.

With \$14.6 billion dollars in direct impacts since 2003, SRC continues to help both local and international clients seize opportunities, increase productivity and develop new markets.

SRC is looking forward to growing and developing new technologies to drive Saskatchewan's industries forward and securing a bright future for the province. For more information on how the Council is help Saskatchewan achieve its environmental and social goals, please visit [www.src.sk.ca](http://www.src.sk.ca). 



Diamond Laboratory. Photo: SRC



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# UPCOMING TRADE EVENTS

## OCTOBER 2023

### TRADE MISSION: Water Environment Federations Technical Exhibition and Conference (WEFTEC)

Date: October 1-4, 2023  
Location: Chicago, IL  
Contact: Peter Siarkos, Director,  
Manufacturing & Trade  
psiarikos@sasktrade.sk.ca

WEFTEC is North America's largest water quality event, with over 10,000 attendees and 6,900+ exhibitors in manufacturing or distribution of equipment and supplies, consulting, contracting, planning services, and utility (wastewater, drinking water, and stormwater). This event welcomes audiences from more than 70 countries outside of the United States. More than 400 municipal water and wastewater utilities, nearly 100 finance and investment firms, and all the top 20 design and consulting engineering firms participate in WEFTEC. The top focuses of WEFTEC include water reuse and reclamation (40%), wastewater treatment, design, and modelling (33%) and drinking water (40%).

WEFTEC will house several pavilions, including the Drinking Water Pavilion, Drone Pavilion, Innovation Pavilion, Intelligent Water & Cybersecurity Pavilion, and Stormwater Pavilion. There will be more than 6,000 exhibitors showcasing their latest products, technologies, and services. The show features more than 80 educational sessions with leading industry experts to discuss solutions to issues affecting the industry. The Water Environment Federation will also be hosting more than 10 different workshops connecting industry professionals with learning opportunities.

### TRADE MISSION: 2023 Health Ingredient Japan and Outreach To South Korea

Date: October 4-6, 2023  
Location: Osaka, Tokyo and Seoul,  
South Korea  
Contact: Yi Zeng, Senior Director, Asia  
yzeng@sasktrade.sk.ca

Health Ingredient Japan 2023 will take place on October 4-6, 2023, at Tokyo Big Sight Exhibition Center, Tokyo. STEP will work with the Saskatchewan Trade and Investment Tokyo office to organize food ingredi-

ents and ag-commodity exporters to exhibit at this show. Please visit the show website for more information: [www.hijapan.info](http://www.hijapan.info)  
A preshow visit to Osaka area and post-show to Seoul, South Korea will be organized for participating companies to meet potential buyers in the Osaka regions, Western Japan and Seoul, South Korea. This mission will provide an opportunity for members to showcase their products, meet face-to-face with potential buyers, test the response to products, and learn more about export opportunities in the Japan markets.

### TRADE MISSION: Supply Side West

Date: October 23-27, 2023  
Location: Las Vegas, NV  
Contact: Angela Krauss, VP, Marketing &  
Membership Development  
akrauss@sasktrade.sk.ca

Food Ingredients North America is the largest gathering of product development and R&D decision makers in the food manufacturing sector. More than 20,000 of the world's top food science and technology professionals, representing the most prominent organizations in the global food sector, will attend this event. They will identify trends that will shape the industry as well as learn about the most recent products, ingredients, and technology developments, and their potential business impact. The event brings together professionals involved in both the science and the business of food — experts in R&D, product development, and QA/QC, as well as executive management, marketing, procurement, sales, and more — from industry, academia, and government. FI NA presents a unique opportunity for STEP members to engage with food manufacturers, importers, distributors, and research and development personnel.

### TRADE MISSION: Grocery Innovations Canada 2023

Date: October 24-25, 2023  
Location: Toronto, ON  
Contact: Katie Janhunnen, Trade Specialist,  
Agri-Value  
kjanhunnen@sasktrade.sk.ca

Grocery Innovations Canada (GIC) attracts over 300 exhibitors and just over 4000 attendees about 2600 of which are retailers. GIC is the primary means of connecting with grocers nationwide for the purpose of establishing the engagement and relationships necessary to drive growth

in the Canadian retail grocery industry. The mission will include exhibitor booth space in the STEP booth and directory listing. Saskatchewan companies will be given the opportunity to sell retail products to retailers across Canada.

### TRADE MISSION: EMDA/FEMA

Date: October 31- November 2, 2023  
Location: Kansas City, MO  
Contact: Jeff Cooper, VP,  
Trade Development  
jcooper@sasktrade.sk.ca

The Saskatchewan Trade & Export Partnership (STEP) is organizing a trade mission attending the FEMA/EMDA Annual Fall Convention occurring in Kansas City, MO. This is the annual joint convention of the Farm Equipment Manufacturers' Association (FEMA) along with the Equipment Marketing Distribution Association (EMDA). The members of these associations have been key in the marketing efforts of many Saskatchewan exporters over the years. The goal is to bring these two associations together — to give farm equipment manufacturers the opportunity to meet with wholesalers and manufacturer's representative (EMDA members) companies that are key in the marketing of farm equipment.

These conventions provide opportunities to meet with both potential and existing distributors and marketing representatives. On this business development mission, STEP will organize a group display at the EMDA Industry Showcase, arrange meetings with manufacturers' representatives and wholesalers, be involved in the EMDA Contact Forum, represent non-attending members at these events, and potentially hold a STEP Hospitality Suite.

## NOVEMBER 2023

### TRADE MISSION: 2023 China International Import Expo & Food Hotel China

Date: November 5-10, 2023  
Location: Shanghai, China  
Contact: Yi Zeng, Senior Director, Asia  
yzeng@sasktrade.sk.ca

The China International Import Expo has become the top show for importers to China since the show was established by the Chinese President Xi and organized directly

by the Chinese Central Government, Ministry of Commerce. This show receives direct support from all levels of Chinese governments. According to the CIIE Bureau, the 2019 Expo had over one million attendees hailing from 180 countries, regions, and international organizations. The Expo also had more than 3,800 exhibitor enterprises and 67 national exhibition pavilions. The 2023 6th CIIE will be held from November 5-10 at National Exhibition and Convention Center in Shanghai, China. Please visit the expo website for detail information: [www.ciie.org](http://www.ciie.org)

### TRADE MISSION: Agritechnica

Date: November 12-18, 2023  
Location: Hanover, Germany  
Contact: Jeff Cooper, VP,  
Trade Development  
jcooper@sasktrade.sk.ca

To develop Saskatchewan's agriculture machinery sector in global markets, a trade and business development mission will occur around the Agritechnica Ag Equipment Show in Hannover, Germany. Agritechnica is a biennial show attracting 400,000 people, primarily from the EU, but also from the rest of the world. If machinery exporters are looking for opportunities for their products

in export markets for the first time, or need to expand their distribution in existing markets, Agritechnica is an excellent show for walking, getting an impression of competitive products, for viewing industry developments and for making valuable distribution contacts.

Europe offers 40% of the global market for agricultural machinery with Germany and France being the largest markets within Europe. In addition to attracting key Western European trading partners, Agritechnica attracts many agricultural contractors, dealers/distributors, equipment cooperative managers, wholesalers, and trade organizations from Central and Eastern Europe, North America, Africa, Central and South America, Australia/New Zealand, the Middle East and the Far East.

### TRADE MISSION: Saskatchewan Showcase Multi-Sector Mission

Date: November 2023  
Location: Columbus, OH  
Contact: Ryan Niemela, Director,  
Manufacturing & Technology  
rniemela@sasktrade.sk.ca

STEP will lead a multi-sector mission to Columbus, Ohio. This mission will consist mainly of targeted 1-on-1 business-to-busi-

ness meetings. Each member will get an individualized agenda based on their needs. STEP will utilize the services of an in-market consultant to ensure that every participant gets enough relevant meetings. Transportation will be provided for any outside meetings and a hotel conference room will be booked for meetings where the buyer is invited in. This event is open to all members in any industry. Columbus is the sixth-largest metropolitan area in the Midwest and 14th-largest city in the US. The main industries of this region are energy & chemicals, wood & paper products, metal fabrication, food manufacturing & agriculture, logistics & distribution, bioscience & healthcare and automotive & aerospace.

## JANUARY 2024

### TRADE MISSION: National Western Stock Show

Date: January 6-21, 2024  
Location: Denver, CO  
Contact: Jeff Cooper, VP,  
Trade Development  
jcooper@sasktrade.sk.ca

The U.S. market makes up 100 per cent of Saskatchewan's international live cattle exports. In 2021, Saskatchewan's exports of live cattle increased by 25 per cent in number (105,707 cattle) and 15 per cent in value, reaching \$152 million. STEP Members will have the opportunity to meet buyers of genetics, live cattle, and key market players in the US.

### TRADE MISSION: North Dakota Association of Engineers (NDACE) & Border Info Session

Date: January 31-February 2, 2024  
Location: Fargo, ND  
Contact: Peter Siarkos, Director,  
Manufacturing & Trade  
psiarikos@sasktrade.sk.ca

STEP will recruit companies to participate in a trade mission to the North Dakota Association of County Engineers County Roads Conference and Exhibition (NDACE), being held in Fargo, ND in January 2024. Up to 250 buyers will be looking for construction products, large equipment, engineering services and more related to infrastructure development. These buyers will be from both public and private sectors, including county highway department staff, engineering and construction companies and





county commissioners among others. STEP also plans to create additional value for our attending members around this event. This will include a stop at the Canada/US border to talk with custom officials on each side about how to get goods across the border's customs and what to expect when doing so. While in Fargo, STEP plans to add another group activity pertaining to construction and public works sectors, with the goal of bringing education and potential export opportunities to our members there.

**TRADE MISSION:  
To Mexico & Peru**

Date: January 2024  
Location: Mexico City, Mexico & Lima, Peru  
Contact: Katie Janhunen, Trade Specialist, Agri-Value  
kjanhunen@sasktrade.sk.ca

STEP will organize an Ag commodity trade mission to the South American market. Lentils, Peas, and Wheat exports to Mexico and Peru have been steady in the last few years, with Peru having a 10.3%

CAGR and Mexico being Saskatchewan's 3rd largest market for Ag Commodities. This mission will focus on establishing the current business that the STEP members have in both markets and offer them the opportunity to increase their sales. The plan is to meet with importers, distributors, millers, and visit local processing plants.

**TRADE MISSION:  
2023 Saskatchewan Showcase  
in Southeast Asia & Food  
and Hotel Vietnam**

Date: January, 2024  
Location: Ho Chi Minh, Vietnam, Jakarta, Indonesia, & Bangkok  
Contact: Yi Zeng, Senior Director, Asia  
yzeng@sasktrade.sk.ca

This business development mission to Southeastern Asia will showcase Saskatchewan agriculture, agricultural food, and agricultural technology. This mission is planned to visit three major markets in the Southeastern Asian regions including Vietnam, Thailand, and Indonesia.

Vietnam is a Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), signatory country so the majority of tariffs will be eliminated or reduced to create great opportunities for the Saskatchewan agriculture and agricultural food sector. Thailand is an emerging market for Saskatchewan with great opportunities for Saskatchewan grain and pulse sectors. Indonesia remains the largest export market for Saskatchewan in the ASEAN region with a great demand on soybeans, peas, wheat, and other special crops.



For a complete list of STEP Incoming/Outgoing Trade Missions and Seminars, visit [www.sasktrade.sk.ca](http://www.sasktrade.sk.ca). 



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# Technology, Resources, Mining and Services Sector

**MY SISTER FROM THE USA** was visiting recently, stopping by on her winding road trip through the upper Midwest. This was her first time in Saskatchewan, and she remarked how much busier our province seemed than some of the northern states on her journey. The highways were full of semitrailers, agriculture equipment was operating in the field and pumpjacks were tirelessly moving. Saskatchewan may not have a large population, but we are a busy province, supportive of our natural resources and how our economy revolves around them.

The Saskatchewan government and industry are in lockstep with new opportunities. The global demand for helium increased, buoyed by semiconductor manufacturing, the medical industry and space exploration. The government introduced a helium action plan and the largest purification facility in Canada was opened. Helium can be drilled for right here, not just obtained as a byproduct of natural gas, resulting in less emissions.

Like helium, rare earth elements (REEs) are also growing in demand thanks to electric vehicles, wind turbines and cell phones. The Saskatchewan Research Council (SRC), with the support of the provincial government, is building North America's first Rare Earth Processing Facility. SRC designed and manufactured Canada's first commercial-scale solvent extraction cell technology. These cells will be used in the Separation Unit of the Processing Facility.

Saskatchewan is a leader in sustainable energy production, Enhanced Oil Recovery (EOR) and Carbon Capture Utilization and Storage (CCUS). The Petroleum Technology Research Centre (PTRC) operates the largest active field lab in the world for CO2 storage. Utilizing EOR technologies has been necessary here to optimize production and decrease the need to drill new wells. Saskatchewan will also be a leader in small modular reactors (SMRs), thanks to local expertise from decades of uranium mining and research. Biofuels, geothermal, hydrogen, wind and hydro power are all present in our province.

Total exports from Saskatchewan in 2022 were a record \$52.6 billion. Potash sales overtook crude oil as the leading export. The world's largest potash industry is supported by STEP members, who supply products and services to existing mines and future projects. Copper will soon join coal and gold production here, and there is potential for diamonds, as well as base and precious metals.

There is high demand for STEP Members' products and services outside of Saskatchewan. This is where STEP gets involved; we support members through our contact networks and suite of services including market intelligence, trade leads, incoming and outgoing trade missions, educational seminars, funding programs, sustainability programming and export counseling. Two of my favorite missions last year were a side trip to Wyoming following the SME MINExchange show and a trade mission to Houston and New Mexico. We were able to meet with Mine Managers, Procurement and General Managers, and tour the mines. In the upcoming year, I'm most looking forward to hosting incoming delegations, going to MIN-Expo in Las Vegas, PDAC in Toronto, and a B2B trade mission in Arizona.



Ryan Niemela  
Director, Energy & Mining  
STEP

## 1-10

### 54e Dev Studios Inc

Regina, Saskatchewan  
www.54e.dev



Products and services include a mobile app game, OneShot Golf, that uses Connected Reality to control a real world golfing robot and hit a real golf ball on a real mini golf course and play to win real prizes! With over 50,000,000 golf shots taken, and over 300 million views on the OneShot golf hashtag on TikTok, OneShot golf has been a great success!

### 5thru

Regina, Saskatchewan  
www.5thru.com



Products and services include the 5THRU app which identifies new and returning customers in the drive-thru line, building customer profiles across all locations of the same retailer, sending push notification alerts to staff when a customer arrives to speed up service. 5THRU provides the exact location of the customer in the drive-thru line, working 24/7, even in the harshest environments such as rain, snow, or sun. 5THRU offers simple implementation, simple onboarding and all hardware is invisible to the customer for uninterrupted service.

### 7shifts Inc.

Saskatoon, Saskatchewan  
www.7shifts.com



Products and services include restaurant scheduling software to make scheduling, time-clocking, and team communications quick and easy. 7shifts' solution streamlines operations and reduces labor costs to help restaurants grow. The company also offers advanced workforce management & labor optimization tools for multi-unit restaurant groups.

### ABC Canada Technology Group Ltd.

Saskatoon, Saskatchewan  
www.abcventilation.com



Products and services include ventilation products for various mining, industrial and geomembrane applications, on-site training and customer support, as well as customized accessories.

### Agrimatics

Saskatoon, Saskatchewan  
www.agrimatics.com



Products and services include Libra Cart, a tablet and smartphone-based grain cart weighing and data management system; Libra TMR, a tablet and smartphone-based ration weighing and data management system; and Agrimatics Aero, a cloud service that provides automatic data backup and syncing across mobile devices and the web.

### Allstar Tech

Regina, Saskatchewan  
www.allstartech.com



Products and services include the GetInSync Platform, a SaaS based platform that strengthens Business-IT relationships and delivers business innovation to empower teams, helping them align business strategy with IT priorities. GetInSync measures the data, removes obstacles, and creates innovation.

### Andgo Systems Inc.

Saskatoon, Saskatchewan  
www.andgosystems.com



Products and services include a comprehensive end-to-end suite or à la carte that includes: Smart Call – Automate the communication of available short call shifts to eligible employees, Vacation Mapping – Optimize employee vacation usage and reduce complex processing overhead, Enhanced Absences – Facilitate the employee request process online for planned and unplanned absences, Inform – Easily communicate to a curated list of employees, Quick Dial – Receive, route, and prioritize urgent incoming phone calls automatically, Shift Prebooking – Post and fill vacant shifts months in advance.

### Axiom Exploration Group Ltd.

Saskatoon, Saskatchewan  
www.axiomex.com



Products and services include the ability to confidently facilitate the completion of any project (e.g., geological, environmental, and engineering) for clients in Saskatchewan, across western and northern Canada, and internationally. The company's experienced team consults globally with working Visas and permits already in place in multiple countries. Axiom routinely works in logistically challenging and remote areas, and have experience adapting and succeeding in challenging geographic, environmental, and geopolitical circumstances.

### Bit Service Company Ltd.

Saskatoon, Saskatchewan  
www.bitservice.ca



Products and services include fabrication of support equipment and accessories, including bits for 2 and 4 rotor boring machines, removal tools and full cutting assemblies. They work with customers to design custom cutting assemblies using the latest 3D modeling software. They repair and refurbish continuous miners, potash boring machines, roadheaders and undercutters.

### Brew Ninja Software

Saskatoon, Saskatchewan  
get.brewninja.net



Products and services include Brew Ninja, a Software-as-a-Service (SaaS) product which comes in four tiers: Pint, Growler, Keg, & Vessel. Pint includes our base features, is limited to breweries producing up to 900bbl/year, and allows up to 3 users. Growler is limited to breweries producing up to 2,000bbl/year, allows up to 7 users, and adds lot tracking and QBO integration. Keg is limited to breweries producing up to 7,000bbl/year, allows up to 20 users, and adds two customizable reports. Lastly, Vessel removes all limits, and allows for breweries of any size.

### BudSense

Regina, Saskatchewan  
www.mybudsense.com



Products and services include a wide variety of merchandising solutions for cannabis retailers including digital menus, paper menus, printed product cards, web menus, marketing menus, and more. In addition, BudSense fully integrates with Greenline, Cova, TechPOS, and LeafLogix POS systems to update product, pricing, and inventory information quickly and accurately.

### Calian Agriculture Ltd.

RM of Sherwood, Saskatchewan  
www.intragrain.com



Products and services include BIN-SENSE®, grain storage monitoring system, and Fuel Lock™, fuel monitoring and management system.

### Cameco Corporation

Saskatoon, Saskatchewan  
www.cameco.com



Products and services include uranium mining, refining and conversion services.

### Canada North Environmental Services Limited Partnership (CanNorth)

Saskatoon, Saskatchewan  
www.cannorth.com



Products and services include environmental impact assessment, environmental effects monitoring, regulatory and licensing issues, human health and ecological risk assessments, environmental site assessments, aquatic toxicology, aquatic and fish studies, water quality investigations, hydrological assessments, wildlife investigations, wildlife and vegetation assessments, contaminant investigations, data management and analyses, habitat evaluation and restoration, archaeology/heritage resources, and forestry.

### Canadian Electronic Health Information Systems Ltd.

Coronach, Saskatchewan  
www.guardianemr.ca



Products and services include cloud-based web applications, continuing competency courses, and digital practice resources. We are an enterprise-ready solution that can support clinicians who are just starting their own private practices all the way to multi-location, multi-profession health organizations.

### Canpotex Limited

Saskatoon, Saskatchewan  
www.canpotex.com



Products and services include the marketing and delivery of potash to approximately 40 overseas countries, with the majority of potash heading to Brazil, China, India, Indonesia and Malaysia.

### Capital I Industries Inc.

Tisdale, Saskatchewan  
www.capitali.ca



Products and services include grader mount road maintenance equipment, above and below ground mining, exploration drilling equipment, and oil and gas pipe handling equipment.

### Citrus Technology Inc.

Regina, Saskatchewan  
www.citruscamps.com



Products and services include software for youth programs to manage their business including easy registration process for parents, full custom branding, increased productivity & performance. Family first CRM, centralized communication, memberships & session credits, recurring monthly payments, custom membership perks.

### Combine Settings / Schurset Enterprises Ltd.

Battleford, SK  
www.combinesettings.com



Products and services include a web-based application allowing farmers to interact peer to peer while finding their optimal combine settings, through an annual subscription.

## D

### Delco Automation Inc.

Saskatoon, Saskatchewan  
www.delcoautomation.com



Products and services include municipal, commercial and industrial water treatment equipment such as: reverse osmosis, nano filtration ultrafiltration, micro filtration, media filtration, biological filtration systems, membrane bio reactors, moving bed reactors, micro pollutant removal systems, containerized water treatment plants, disaster relief water treatment systems. These systems are designed to remove metals, salts, micro pollutants, bacteria, viruses, pathogens, and other contaminants.

### Delta CleanTech Inc.

Regina, Saskatchewan  
www.deltacleantech.ca



Products and services include a range of custom solutions in "capturing sustainability". Delta provides PDO Engine (Plant Design & Optimization), Engineering Services, Build-Own-Operate-Maintain CO2 Projects, CO2 Customized Design Gas Purification Systems and through its wholly owned subsidiary, Carbon RX, a digital streaming solution for Carbon Credits. Carbon RX is an integrated origination, validation and digitization Carbon Credits business.

### Dias Ground & Airborne Geophysical Surveys

Saskatoon, Saskatchewan  
www.diasgeo.com



Products and services include next-generation 3D DCIP resistivity and IP surveys using the proprietary DIAS32 system, ground MT/CSAMT/AMT surveys using the DIASMT system, full-tensor airborne magnetic gradiometry surveys using the QMAGT system, and airborne passive EM (AFMAG) surveys with the QAMT system. Both airborne systems deliver unparalleled data in the industry due to highly sensitive low-temperature SQUID sensors.

### Doepker Industries Ltd.

Annaheim, Saskatchewan  
www.doepker.com



Products and services include highway semi-trailers, steel and aluminum agriculture grain trailers, commercial flat decks and drop decks, forestry logging trailers, industrial oil and gas trailers, gravel trailers, heavy haul trailers, and specialty trailers.

### DryAir Manufacturing Corp.

St. Brieux, Saskatchewan  
www.dryair.ca



Products and services include the greenthaw line of towable ground thaw units, central heating units (CHUs), powered heat exchangers, specialized accessories such as explosion proof heat exchangers, bayonet tank heat exchangers, grain drying fan coils and desiccant dehumidifiers. Available fuel sources are diesel, propane, natural gas and steam.

### Dutch Industries Ltd.

Pilot Butte, Saskatchewan  
www.dutchind.com



Products and services include offering innovative OEM products, to producers throughout North America and other parts of the world, including Dutch openers for seed and fertilizer application, manure spreaders, crop lifters, and chemical cab filters. Dutch Manufacturing is the company's custom manufacturing division whose services include material profiling and forming, advanced CNC machining, advanced welding and fitting, powder coating and finishing, custom carbiding, and engineering. Dutch also provides material procurement, project management, supply chain management, assembly, warehousing, kitting, logistics and packaging.

### DynaIndustrial LP

RM of Sherwood, Saskatchewan  
www.dynaindustrial.com



Products and services include custom designed and manufactured equipment for mines (roof bolters, chutes, ducts, centrifuges, miner components, etc.), steel mills (transfer cars, furnace platforms, sideguides, etc.), pipe mills (pipe handling equipment, pipe double jointing lines, rotary plasma cutoffs, uncoilers, id welders, pipe collapse testers, etc.), and oil and gas (top drive components).

## E

### Emerald Seed Products Ltd.

Avonlea, Saskatchewan  
www.emeraldseedproducts.com



Products and services include Nutrifen as a feed additive for use in pig, chicken and cattle feed, FenGum for use in the mining or oil industry, and Canafen used in the food and natural health industries.

### ENGCOMP Engineering & Computing Professionals Inc.

Saskatoon, Saskatchewan  
www.engcomp.ca



Products and services include catering to the heavy industrial market, providing professional services to the potash, uranium, oil and gas, pulp and paper, chemical processing, and food processing industries. Disciplines in which Engcomp can provide engineering services include mining, process, mechanical, structural and electrical. Engcomp executes both greenfield and brownfield projects varying in size and complexity, and are well positioned to lead the execution of small to medium scale projects from concept to completion. In addition to engineering projects, Engcomp has led or been part of procurement support teams, construction management support teams, and owners' teams.

### Enviro Integration Strategies Inc.

Saskatoon, Saskatchewan  
www.envirointegration.com



Products and services include their risk evaluation software provides governance assurance, giving you a proactive look at the quality of past work done, to know if the site is well understood, the design and analysis were rigorous enough, and if the facilities were built and are being operated according to design. Having this information in one place is critical to diagnosing gaps and developing remedial plans, to lower the potential of a facility failure.

### Environmental Instruments Canada Inc.

Saskatoon, Saskatchewan  
www.eic.nu



Products and services include radiation safety instrumentation, including radon sniffers, gamma detectors, portable sample counters, and WebRad – an online radiation data management system.

### Environmental Material Science Inc. (EMS)

Saskatoon, Saskatchewan  
www.ems-inc.ca



Products and services include two major products – Soil Sense and Distributor. The Soil Sense is an autonomous, self-powered soil sensor that measures hydrocarbons, carbon movement and greenhouse gases every 30 minutes. The accompanying software allows for companies and organizations across all levels of sophistication to optimize their ESG performance. The Distributor is a solar-powered, unit that reduces hydrocarbon and saline pollution in soil.

## F

### Fortis Mining Engineering & Manufacturing

Saskatoon, Saskatchewan  
www.fortiscorporation.com



Products and services include specialized services for the mining, custom metal manufacturing and machining industries.

## G

### G & S Sales Ltd.

Dilke, Saskatchewan  
www.watermasterpumps.com



Products and services include a self-priming floating pump.

### Glendyn Consulting Inc. o/a MuniSoft

Regina, Saskatchewan  
www.munisoft.ca



Products and services include software solutions for tax and assessment, cashiering, utility billing, public works, financial, cemetery administration, mapping and GIS.

### Global Ag Risk Solutions

Moose Jaw, Saskatchewan  
www.agriskolutions.ca



Products and services include a multi peril product that insures your input costs plus revenue and it's designed with every farmer in mind. The plan is simple: Your three major inputs – fertilizer, seed and chemicals – are covered, plus a specific amount of revenue per acre. As your input costs increase over the year, so does your coverage. There is no ceiling, and no effect on your premium – meaning you can do what your farm needs, whenever it needs it. Payouts happen quickly. So, if something happens, you won't have to wait for your money. You can use this insurance as collateral with major banks, and borrow against it.

### Graham Group

Saskatoon, Saskatchewan  
www.grahambuilds.com



Products and services include construction services across three different sectors including commercial, infrastructure, and industrial. Projects include educational facilities, hospitals and healthcare institutions, office buildings, warehousing and distribution facilities, retail outlets and complexes, recreational facilities, hotels and casinos, multi-unit residential housing developments, roadways, bridges and interchanges, public transit, airports and seaports, water and wastewater treatment facilities, water management and storage structures, conventional and alternative power generation and distribution, including wind farms and district energy plants, oil, natural gas and petrochemicals, power generation, refining and upgrading, mining and forestry, potash, gold and uranium, site preparation, including excavating and grading, underground pipe installation, mass excavating and heavy construction, haul road construction and operation, piling- driven, drilled, CFA and more.

### Grassland Ventures

Regina, Saskatchewan  
www.grasslandventures.ca



Products and services include strategy and roadmap planning, brand development, product design, and product creation (web and mobile). Grassland Ventures supports both established enterprise clients wanting to modernize existing processes and entrepreneurs looking to create high-growth companies, working with partners across all industries and locations.

### Greenwave Innovations

Regina, Saskatchewan  
www.greenwaveinnovations.ca



Products and services include custom design, supply, install and commission non-intrusive, maintenance-free electrical, natural gas and water sub-monitoring systems.

## H

### HCC Mining and Demolition Inc.

Saskatoon, Saskatchewan  
www.hcc.ca



Products and services include a variety of underground mining services including development, construction, blasting and demolition, rehabilitation, production and operations support, utilities installation, steel installation, and shaft repairs. HCC's employees include a cross-section of experience and new-to-industry miners and tradespeople (heavy duty mechanics, millwrights, and electricians).

# CONNECTING SASKATCHEWAN BUSINESS WITH THE WORLD.

## HOMETEAM LIVE

Regina, Saskatchewan  
www.hometeamlive.com

**HOMETEAM**

Products and services include an app that makes an unmanned camera feel like a high-end broadcast feed, and with HomeTeam Live's app you will be able to watch and re-watch your kid score their first goal. HomeTeam offers major broadcast quality live streams that includes score clocks, sponsor overlays, music, intro animation, and play-by-play audio and monetization and revenue sharing with leagues.

## Hydraulitechs

Saskatoon, Saskatchewan  
www.hydraulitechs.com



Product and services include the Nutbuster and disassembly table for hydraulic cylinders, automated honing machine, rod polisher, test rig for pumps and motors and hydraulic power units. Locally repairs and supplies all hydraulic components such as cylinders, pumps, motors, accumulators and control valves. Repairs and services all kinds of equipment.

## Hyon Software Inc.

Saskatoon, Saskatchewan  
www.hyon.ca



Products and services include software to allow organizations to participate in the circular economy.

## IDS Infrastructure Data Solutions, Inc.

Regina, Saskatchewan  
www.ids.consulting



Products and services include software guaranteed to generate truly optimal long term system-level renewal plans and long term solutions and services around four main product lines including Bridge Optimizer, Roads Optimizer, WaterNet Optimizer, and SewerNet Optimizer.

## IJACK Technologies Inc.

Moosomin, Saskatchewan  
www.myijack.com



Products and services include tri-phase and multi-phase transfer pumps, gas compressors, casing gas compressors, vapor recovery units, high inlet pressure pumps and hydraulic pumpjacks.

## Immigrate

Saskatoon, Saskatchewan  
www.immigrate.biz



Products and services include custom manufactured components in addition to augers, centrifuges, compactors, gearboxes, impactors, miners, pumps, pipeline equipment, u-joints, as well as valve bodies, CNC machining, welding and fabrication, mechanical assembly, surface solutions, site service and maintenance, CAD/CAM, and engineering design and support.

## Industrial Machine & Mfg. Inc. (IMM)

Saskatoon, Saskatchewan  
www.indmac.ca



Products and services include custom manufactured components in addition to augers, centrifuges, compactors, gearboxes, impactors, miners, pumps, pipeline equipment, u-joints, as well as valve bodies, CNC machining, welding and fabrication, mechanical assembly, surface solutions, site service and maintenance, CAD/CAM, and engineering design and support.

## Innocorps Research Corporation

Saskatoon, Saskatchewan  
www.innocorps.com



Products and services include automated water treatment for your home, and turnkey or design-build systems for commercial, industrial and military applications.

## K

## Karnalyte Resources Inc.

Saskatoon, Saskatchewan  
www.karnalyte.com



Products and services include a premium granular MOP potash product with minimal environmental impact.

## KeyLeaf

Saskatoon, Saskatchewan  
www.keyleaf.ca



Products and services include research and development (R&D), toll processing, oil Processing (degumming, refining, bleaching/pretreating, fatty acid concentration, inter-esterification, winterization, deodorization), water and solvent based extraction of plant-based materials, and molecular/vacuum distillation. KeyLeaf has a 24 hr./day, 5 days/week operating schedule and the capability to process grams to tons.

## Koenders Water Solutions Inc.

Regina, Saskatchewan  
www.koenderswatersolutions.com



Products and services include pond care equipment including windmill and electric aeration systems, solar aeration and water pumps, water fountains and natural treatments for ponds, lakes, sewage lagoons, plumbing and septic systems, a range of environmentally-safe cleaning products for the Janitorial, Commercial cleaning and Restoration sectors, Water Management Consultancy and unique Program to treat and manage Storm Water, Parks and Rec water and Waste water applications using renewable energy technology and natural treatment products.

## L

## Legacy Watercare Innovations

Regina, Saskatchewan  
www.legacywatercare.com



Products and services include an application specific, chemistry mixing system that analyzes effluent in real time, to customize chemistry prescriptions and dosing volumes before the effluent enters their novel clarification process. The clarification reactor is a fully contained, pressurized separation vessel that flows high volumes of wastewater. Legacy Water Care's process creates efficiencies, resulting in cost savings and creating safer working environments for operators with remotes monitoring and water analytics.

## LightLeaf Solar

Saskatoon, Saskatchewan  
www.lightleafsolar.com



Products and services include dropLeaf – store it in sight and charge as you drive; uLeaf – easy handling at only 5 pounds; gLeaf – rigid, light and tough ultra light solar panel for all our fixed mount needs; and custom panels – offering many different custom solutions.

## Limbus AI Inc.

Regina, Saskatchewan  
www.limbus.ai



Products and services include Limbus Contour, the company's first commercial product, which utilizes machine learning models to perform accurate and fast segmentation of organs at risk - a critical component of radiotherapy treatment planning. The quality of the contours produced is expert level and the significant time savings allows clinicians to spend more time on patient care. Compared to existing atlas-based automatic segmentation software, this product is much faster, simple to use, integrates with any platform, and produces accurate contours on a large library of normal organs. The product is approved for use in Canada, the US, the EU and other international markets.

## Lumeca Health Inc.

Regina, Saskatchewan  
www.lumeca.com



Products and services include two software products. Lumeca Connect, connects patients with their family doctors through a safe, secure video or phone consultation platform. It can even help unattached patients find providers near them. The second product is called Lumeca Go, which is geared towards Next Gen 9-1-1 services. Lumeca Go enables dispatchers to quickly send a SMS to a 911 caller on a cell phone. The caller clicks the SMS link and allows GPS and camera access, the dispatcher now has location and eyes on the scene to ensure proper services are sent to the scene as well as eliminate unnecessary resources being sent out. Providers can also send PHI or communicate with order providers during the process of patient transfers, treatment center, physician specialist support and emergency medicine.

## M

## Major Reclaim Corp.

Prince Albert, Saskatchewan  
www.majorreclaim.com



Products and services include using a proprietary approach to recover precious metals from the mills system.

## Maven Water & Environment

Saskatoon, Saskatchewan  
www.mavenwe.com



Products and services include assessing site-specific needs, and recommend the best combination of treatment technologies, management strategies, and source control opportunities. Their experts offer passive and semi-passive and biological water treatment technologies such as treatment wetlands (CWTS), gravel bed reactors, bioreactors (BCRs), etc. Through strategic collaborations with experts in active treatment, our toolbox spans a wide range of active technologies (e.g., reverse osmosis, ultrafiltration, lime precipitation, ion exchange, etc).

## MemoryKPR Technologies

Moose Jaw, Saskatchewan  
www.memorykpr.com



Products and services include a digital content management system along with a photo, video, and memory storage platform.

## MERA

Regina, Saskatchewan  
www.meragroup.net



Products and services include engineering services, technology transfer, training, data acquisition and control.

## MMKL Group

Saskatoon, Saskatchewan  
www.mmklgroup.com



Products and services include technology for the mining industry such as preventative maintenance, safety, fire prevention, inventory management, IT PPE including gloves, hard hats, small tools and workwear. They also provide gas detection bio remediation fire prevention tools and suppressants.

## Morris Interactive

Saskatoon, Saskatchewan  
www.morrisinteractive.ca



Products and services include 4 key pillars: Learning & Development, LINK Business Strategy, HR Solutions and Indigenous Experience.

## myComply

Saskatoon, Saskatchewan  
www.mycomply.net



Products and services include IoT hardware and cloud-based software to blue-collar industries, like construction, mining, and manufacturing. The hardware component is built to track time/attendance, manpower, control access to the site, and verify qualified individuals. The software component is utilized to ensure that all subcontractors (and their workers) have completed the proper onboarding and are vetted for site requirements like safety certifications, licenses, training, and orientation.

## MyKey Global Accommodations Inc.

Saskatoon, Saskatchewan  
www.mykey.com



Product and services include a tech-enhanced accommodation booking platform linking hospitality professionals, peer-reviewed-fully-vetted vendor network, and prospective guests. MyKey is an invaluable easy-to-use resource for emergency hotel reservations, furnished apartments, independently owned and operated corporate housing options and custom housing solutions.

## N

## Norseman Structures

Saskatoon, Saskatchewan  
www.norsemanstructures.com



Products and services include ShelterSolutions in the pre-engineered building industry, specializing in steel framed fabric covered buildings. We offer turnkey solutions with services including design and engineering, manufacturing, construction, financing, and documentation.

## North Fringe Industrial Technologies Inc.

Nipawin, Saskatchewan  
www.northfringe.com



Products and services include manufactured pump stations and dewatering stations, pump sales, pump/hose rentals, pump repairs, parts and accessories, hoses, dewatering, evaporation, filtration, screen sales and dredging. NFIT keeps a large inventory of pumps and pump parts at their main yard in Nipawin, SK; along with an advanced pump repair and test facility that allows highly trained technicians to perform all aspects of the pump repair and test in house. NFIT's Alberta location in Gibbons (sales and repairs) and Atlantic office and shop in Dartmouth, NS complete their family of companies. NFIT is proud to offer you custom solutions for all your smallest to largest dewatering, dredging and general pumping needs nationwide.

### North Star Systems Inc.

Saskatoon, Saskatchewan  
www.northstarsystems.ca



Products and services include Tattle Systems hardware and software which works as a complete and closed system, connecting sensor to device and device to user through any smartphone, web app or tablet from anywhere. They also offer Live Dispatch, order management software as well as custom hardware and software solutions.

### Northern Strands

Saskatoon, Saskatchewan  
northernstrands.com



Products and services include underground mining wire rope, attachments and equipment and general rigging, crane ropes and material handling.

### Nutrien Ltd.

Saskatoon, Saskatchewan  
www.nutrien.com



Products and services include potash, phosphate, and nitrogen.

O

P

### Peter Lucas Project Management

Saskatoon, Saskatchewan  
www.peterlucas.ca



Products and services include resourcing solutions that fuel your projects. Peter Lucas has a team of highly qualified and specialized candidates ready to deliver innovative solutions for your projects. Through an extensive vetting process, PL custom selects the perfect candidate to match your unique project requirements and team culture. Roles PL currently has placed include: Electrical Designer, Commissioning Techs, Project Engineers, Project Managers, Project Coordinators, Mechanical Engineers, Mechanical Designers, Quality Specialists, Automation Specialists, Safety Coaches, Project Schedulers, Project Administrators, Contract Specialists, Project Planners, and Cost Controllers.

### PIC Investment Group Inc.

Saskatoon, Saskatchewan  
www.picgroup.ca



Product and services provided from majority owned companies - ClearTech Holdings Ltd., Caron Transportation Partnership, Panther Industries Inc., Round Table Management Ltd., Adventure Destinations International, KREOS Aviation, CanGas Propane, and Long Lake Insurance. PIC also has 22 minority investments in a wide range of companies.

### PINTER & Associates Ltd.

Saskatoon, Saskatchewan  
www.pinter.ca



Products and services include environmental, geotechnical, mining, and municipal engineering consulting.

### Prairie Clean Energy

Regina, Saskatchewan  
www.prairiecleanenergy.com



Products and services include converting agricultural waste into biomass fuel for the global industrial marketplace.

### Precision AI Inc.

Regina, Saskatchewan  
www.precision.ai



Products and services include Precision.ai which is at the forefront of the fully autonomous farming revolution, using artificial intelligence and robotics to solve the key agricultural challenges of the 21st century. Their patented artificial intelligence powers the farming machines of the future.

### Pressure Corp

Saskatoon, Saskatchewan  
www.pressurecorp.com



Products and services include a revenue-positive scope 1 and 2 emission-reduction solution that transforms pipeline waste pressure into clean energy. They leverage proven technology for their waste pressure power system and third-party capital to eliminate the technical and financial risk for their host customers.

Q

### Quesnel Bros Diamond Drilling (QB Drilling)

Saskatoon, Saskatchewan  
www.qbdrilling.com



Products and services include drill pad preparation, remote heli drill pad preparation, site clearing, reclamation work, core shack facilities, core cutters, labour services, core cutting, equipment rental, custom core rack fabrication, skidder services, remote camp services, fire suppression, water hauling, technical drilling, wedging installation, core orientation, APS units, directional drilling, split tube packing, and deep overburden recirculation services.

R

### Refresh Enterprises Inc.

Saskatoon, Saskatchewan  
www.refresh.ca



Products and services include developing innovative technology-based platforms designed to bring value-added wellness solutions to the marketplace.

### RESPEC Consulting Inc.

Saskatoon, Saskatchewan  
www.respec.com



Products and services include subsurface geology and exploration planning; geological modeling and mineral resource and reserve estimations following NI 43-101, SEC SK 1300 or other regulatory formats; mining engineering and materials testing; full procurement drilling services; design and drilling of unconventional wells. Our Energy related services include cavern storage, geothermal, carbon capture usage and storage (CCUS), compressed air energy storage (CAES) and hydrogen storage.

### Rivercity Innovations Ltd.

Saskatoon, Saskatchewan  
rivercityinnovations.ca



Products and services include our rugged BeeSecure GPS trackers using LoRa or cellular – used for bikes, pets, sport vehicles, trailers, and corporate asset tracking, our temperature monitoring cold-chain solution for pharmacy and grocery stores, hydrocarbon monitoring for oil and gas industry soil contamination remediation, and property monitoring for seasonal problems such as water line freezing, water leaks, or other common problems. Our latest product is an Indoor Air Quality Monitor which reports on CO2, volatile organic compounds, and other ambient air issues – perfect for post-covid room control. RCI designs smart city solutions using LORA, and operates a private LoRa network for its clients worldwide.

### Rockford Engineering Works Ltd.

Regina, Saskatchewan  
www.rockfordworks.com



Products and services include equipment supply, automation, structural, mechanical, and industrial engineering. The company's professional engineers are certified to seal/stamp designs in Alberta, Saskatchewan, and Manitoba and provide equipment for all industrial applications.

S

### S3 Group Ltd.

Swift Current, Saskatchewan  
www.s3group.com



Products and services include custom manufacturing and pneumatic solutions and unique wireforming services for the farm equipment industry, as well as the Delta Flexible Harrow product.

### Saskatchewan Research Council (SRC)

Saskatoon, Saskatchewan  
www.src.sk.ca



Products and services include reliable, professional commercial laboratory services. The company also has dedicated labs that focus on contract research and development, as well as pilot plants that offer clients the opportunity to test technologies. By investing in new technologies and world-class researchers, SRC continues to expand their capabilities, moving SRC to the forefront of R & D and meeting the growing needs of industry.

### SaskTel International

Regina, Saskatchewan  
www.sasktelinternational.com



Products and services include integrated, end-to-end Operational Support Systems (OSS) and Business Support Systems (BSS) software solutions covering and automating all key functions of the 'order-to-cash' process for communication service providers. Software products include order management, plant inventory and assignment, auto provisioning/activation, trouble ticketing, billing and revenue management, workforce management, Customer Relationship Management (CRM), strategic consulting, network consulting, operational effectiveness consulting and managed services where resources are leveraged with decades of experience from parent company, SaskTel.

### ServiceBox

Regina, Saskatchewan  
www.getservicebox.com



Products and services include ServiceBox, a platform to manage workflows of a service company featuring customer management, job site tracking, quotes, work orders, time and materials, job notes, pictures, history, signatures, drag and drop scheduling, maintenance management checklists, recurring work orders, recurring contracts, contract expiration updates, and time-sheets invoicing.

### Shercom Industries Inc.

Saskatoon, Saskatchewan  
www.shercomindustries.com



Products and services include recycled rubber products and services for the commercial, residential and industrial markets.

### SkillShark Software Inc.

Saskatoon, Saskatchewan  
www.skillshark.com



Products and services include a completely customizable software for coaches to set up their evaluations, and invite evaluators to collect scores. Athletes are scored using the device of the evaluators choosing, with data being instantly uploaded. Hours of time are saved by eliminating data entry, and reports are instantly generated. Coaches can begin sorting teams or even communicate results with athletes and parents in the click of a button. By simplifying the process, increasing communication, and aiding in player development SkillShark will revolutionize the athlete assessment process.

### SolusGuard

Saskatoon, Saskatchewan  
www.solusguard.com



Products and services include a suite of hardware and software safety solutions that is customizable for each organization. This includes a wearable panic button; lone worker safety app with check in/out services; safety monitoring platform (mobile and desktop); a satellite extender for remote workers; and a web-based monitoring and alert management platform for dedicated safety and security teams.

### StoreToDoor Technology Inc.

Regina, Saskatchewan  
www.storeto-door.com



Products and services include StoreToDoor, a white labelled platform that allows retailers the ability to offer a cost-effective same-day delivery to their customers while using our network of delivery drivers to fulfill the deliveries. StoreToDoor is an extension of the client's brand and lets the retailers own their clients through process by white labeling all communications to the retailers clients. StoreToDoor integrates with numerous E-Commerce platforms such as SHOPIFY, SQUARE and also have native integrations with clients proprietary software. They give retailers and their clients the ability to track their deliveries in real time and also provide their network of delivery drivers to fulfill the tasks and the technology to improve the client communication in real time. Recently the company added a manual client portal for non-E-Commerce clients.

T

### TEAL Electrification Systems / SenergyK Innovative Creations Inc.

Saskatoon, Saskatchewan  
tealev.com



Products and services include Class 6, Class 7, and Class 8 electric vehicles. These vehicles use TEAL Electrification Systems' patented Umingmak battery technology to ensure they can thrive in the harshest climates on earth. They also use the company's Telematics technology to connect to each other and to your home base.



### Team Power Solutions

Saskatoon, Saskatchewan  
www.teampowersolutions.ca



Products and services include a complete portfolio of services that can take your project from conception to startup or any point in between. Team Power Solutions pride themselves in offering their customers unparalleled service and commitment with a wealth of knowledge, experience and resources in a wide variety of applications. Team Power Solutions are able to offer their customers solutions for anything from standard OEM equipment to custom applications. Their people have diverse backgrounds with extensive experience in electrical engineering, maintenance, commissioning, design, instrumentation, manufacturing, training and mechanical services to name a few.

### Terra Modelling Services Inc.

Saskatoon, Saskatchewan  
www.terramodellingservices.ca



Products and services include mineral resource exploration and project management, resource estimation, geological and economic modelling, commodity price forecasting, stakeholder engagement and reporting (due diligence, NI43-101, JORC).

### The Mosaic Company

Regina, Saskatchewan  
www.mosaicincanada.com



Products and services include mining and processing of phosphate and potash minerals into crop nutrients, and then shipping via rail, barge and ocean-going vessel to their customers in the major agricultural centers of the world.

### Titan Clean Energy Projects Corporation

Craik, Saskatchewan  
www.titan-projects.com



Products and services include Bio-based plastic additives, carbon-based additives to replace traditional fossil-based additives such as polypropylene, polyethylene, and carbon black in any plastic products that are manufactured worldwide. They also offer compostable bioplastic masterbatches, particularly suitable for single-use plastics formed by injection or rotational molding. Their formula meets the ASTM requirements for composability. Titan Clean Energy Projects Corporation also offers Bio-based, renewable activated carbon for odour control.

### Twisted Pair Productions Ltd.

Indian Head, Saskatchewan  
www.twistedpairproductions.com



Products and services include video production for corporate videos and television commercials and a 5.1 surround sound mix room for radio and audio postproduction services. Through the company's interactive division White Rabbit VR, they offer full interactive development for virtual and augmented reality applications specializing in industrial training and simulations. As well, they offer extensive interactive development for museum and interpretive center clients across Western Canada.

### Vale Industries Ltd.

Indian Head, Saskatchewan  
www.valeindustries.ca



Products and services include the manufacturing of the Grain Giant, a 6500 bushel field bin along with hopper cones for grain storage. In their mining division, they manufacture conveyors, feeders, screens and cones.

### VeriGrain

Saskatoon, Saskatchewan  
www.verigrain.com



Products and services include two versions of the VeriGrain app the Grower Series or the Enterprise Series. The Grower Series app allows growers to create a digital record for tracking quality and quantity when grain is loaded into or out of storage. It ensures samples are representative, streamlines interaction with testing labs and gives the grower more detailed knowledge they can easily share digitally with buyers. This results in enhanced revenue for the grower, traceability and reduces rejections and downgrades. Buyers receive what they purchased and operate more efficiently, reducing costs.

### Wave9 Technology Inc.

Kipling, Saskatchewan  
www.wave9.co



Products and services include a monitoring system that provides oil-field maintenance staff with a workflow dashboard that prioritizes interventions and feeds the 'right info at the right time' to the operator. The solution consists of a camera that provides visual access to the wellhead, sensors tracking key operating parameters, and analytics software that processes and filters this info, then alerts the operator to certain conditions. The combination of these features and abilities allows a significant reduction in human cost of operation as well as operational risks. The package is designed to use a solar panel and batteries instead of power to eliminate the need of an electrician and operational shut down during package installation.

### Westcap Mgt. Ltd.

Saskatoon, Saskatchewan  
www.westcapmgt.ca



Products and services include a diverse and distinct group of investment funds such as the Golden Opportunities Fund Inc., as well as a series of Management Buyout Funds that are focused on providing growth and succession capital to Western Canadian companies.

### Western Heritage

Saskatoon, Saskatchewan  
www.westernheritage.ca



Products and services include satellite imagery, opusTrack and opusSchedule software, EFMP software, Archaeology and Cultural Heritage management, GPR Services, image interpretation services GIS mapping services, and UAV mapping and inspection services.

### WRT Equipment Ltd.

Saskatoon, Saskatchewan  
www.wrtequipment.com



Products and services include construction equipment products, conveyors, crushers, asphalt plants, compaction equipment, and more.

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# Saskatchewan Shatters Export Record

Successful trade partnerships start with strong connections.

The Government of Saskatchewan's network of nine international offices are building the important connections needed to share the province's exports and expertise with the world. Those connections are paying off in big ways as 2022 marks the largest export year in Saskatchewan's history.

In the last year alone, the province has increased the number of international markets to which Saskatchewan exports more than \$1 billion and continues to keep the province's debt to GDP ratio within the top three in Canada. Milestones that have been hit include an all-time high of \$29.3 billion in exports to the United States, a 74 per cent increase since 2018. Exports to the Association of Southeast Asian Nations (ASEAN), which includes the Philippines, Thailand, Vietnam, Indonesia, and Singapore, totaled \$2.9 billion, a 91.3 per cent increase over 2021.

The province has also seen historic population growth and is now home to more than 1.2 million people. With record exports of \$52.6 billion, it was a big year for Saskatchewan.

Successes like these are what allow the Government of Saskatchewan to continue building on its strengths to create jobs, grow the economy, and protect communities across the province. And it is through connections fostered through the international offices that this is possible.

Behind big numbers are strong businesses that allow the province to lead in sectors like agriculture, mining, and energy. Saskatchewan's international offices support businesses in finding new markets and opportunities. One business that has grown their market and distribution through the offices is Black Fox Distillery, located outside of Saskatoon.

As they have been working to expand their reach internationally, co-owner Barb Stefanyshyn-Cote said "it's been really beneficial for us to have the Saskatchewan trade offices in different countries around the world. We've been able to make connections. Then, when we're not there, these people are looking for opportunities for

us, and it's really nice to have that back-up and support somewhere beyond your country."

Black Fox Distillery is often a stop on tours for incoming delegations to Saskatchewan as well. Incoming delegations are a key part of the province's strategy to increase trade. That means the province can give the world a first-hand view of the people behind the province's reliable and sustainable exports. After all, Saskatchewan has the food, fuel, and fertilizer the growing world needs, and it's the opportunities to meet face to face that provide a venue to build connections that help reach the agreements that are so mutually beneficial.

Building on the strong connections the province has is as much about sharing knowledge and expertise as it is goods and services. It's the people in the province and the expertise they have in major sectors that allow Saskatchewan to create high-quality products. A big part of building this expertise is through research and innovation, which is important to share with the world as well.

An example of how international offices and missions can work together to share that expertise is the University of Saskatchewan. Dr. Baljit Singh, Vice President of Research with the University of Saskatchewan, was part of the recent delegation to Germany, and spoke about the potential that can be unlocked for their institution through joining trade missions and working with international offices.

"Being a part of the Germany mission allowed us the chance to connect with industry and academic partners and have meaningful conversations about the ground-breaking research happening at the University of Saskatchewan in areas of international importance, like pandemic preparedness, critical minerals, and food security," Singh said. "The Saskatchewan Germany trade office will be a great resource for the University of Saskatchewan as we continue to develop our student mobility strategy and other key relationships with our German partners."

These are just some of the examples in which connections are turning into great opportunities that strengthen the provincial economy.

# A DECARBONIZATION SOLUTION

Prairie Clean Energy is Providing the World with Sustainable Biomass Fuel

BY JOE CAMPLIN

**IF YOU HAVE LIVED** in Saskatchewan, you have likely heard of – or seen – producers burning their leftover flax straw in the fall. They do so because there is currently no use for it and it’s too fibrous to till under. Trevor Thomas frequently drove past producers burning their straw on his way to Calgary from Regina—witnessing this practice inspired him to start Prairie Clean Energy (PCE).

Mark Cooper, the company’s President and CEO, recalls, “Trevor thought there had to be a better way. He wondered how we could harness all that unproductive release of carbon and put it to more productive uses.”

As it turns out, there was a way to harness that energy, and Thomas and Cooper incorporated Prairie Clean Energy in March of 2020 to do just that. PCE provides a solution to decarbonization by aggregating and processing under-utilized biomass resources in the prairies.

PCE purchases agricultural residue (primarily flax straw) from producers, processes it into pellets, and then sells it to customers around the world. These customers burn the pellets, which converts the energy into power generation. (The pellets are also very effective for heat generation.) The needs for this type of service have never been higher and Cooper emphasizes that PCE is in a unique and exciting position in the market for their patent-pending flax pellets.

“The whole world is looking to decarbonize,” explained Cooper. The world’s transition to clean energy helped inspire PCE’s creation and was one of the driving factors for Thomas and Cooper to accelerate the launch. “We knew PCE can solve two problems here; we provide a clean energy solution the world needs and also generate a new revenue stream for prairie producers,” said Cooper.

PCE works closely with the Saskatchewan Flax Development Commission, which represents flax growers. PCE is the only corporate registered buyer of flax straw with the commission. “The producer and agricultural organization relationships Trevor has been building for seven years is foundational to our success. As a result, we’ve invested heavily in developing our own database of interested flax producers,” said Cooper.

PCE works directly with growers and signs flexible Right of First Refusal agreements that guarantee growers will sell their flax straw to the company when producers decide to grow flax in upcoming years. “Our agreements provide producers some flexibility... in the sense that we know they rotate crops, some years they might not grow flax, so they’re not bound to sell to us every year.”

Creating a strong relationship with growers is integral to the success of the business, as PCE relies on growers willing to sell them their

flax straw. Cooper says they have been able to create these strong relationships and are looking forward to continuing to do so. “There’s lots of one-on-one engagement,” said Cooper. “You have to build those relationships individually, and fortunately, we’ve got a really experienced team that likes to build relationships with people.”

Acquiring the flax straw is only the first step of the process. PCE must then convert the flax straw to pellets to export them around the world. Up until now, the company had been using third-party contractors to produce the pellets on a batch-scale production basis. This is set to change, as the company is planning a full-scale production facility in Regina, which is scheduled to open in 2024.

Cooper said the facility will be up and running soon, but will take some time to reach full operating capacity. “The processing facility in Regina will have the capacity to do about 150,000 tonnes per year when it’s fully operational,” said Cooper. “Next year, it’ll begin producing about 75,000 tonnes.”

What is especially exciting about this facility is that it will be the first of its kind in the world. Cooper said that keeps the team motivated as all the pieces are being put in place. “When I get frustrated that it’s taking time, I have to remind myself that we’re doing something that nobody’s ever done before,” he said.

Through Prairie Clean Energy, producers will no longer need to burn leftover flax straw.



Keeping the facility in Saskatchewan was extremely important for the company, as almost everyone working at PCE was born and raised in the province. “I mean 100 per cent we want to be doing it here, so we’ve been busy raising money for the equipment for the facility,” said Cooper. “We come from a giant province geographically, but a small population and a small city, and we are trying to deliver a solution to the world. It takes time to figure that all out.”

But building this one-of-a-kind facility in the province also made logistical sense. “Saskatchewan’s such a perfect place for this because we produce the world’s most flax, we’re an export-driven economy, and we’re already known as a provider of things that the world needs,” said Cooper. “We can take something that we do better and more of than anybody else in the world, and use the waste product and turn it into something the world desperately needs.”

Cooper and the team are eager to get started but will have to be patient as the plans for the facility are completed. “We’re in a great spot,” he adds. “I wish the Regina facility was running today because we could be selling pellets from there right now, but I think we’re probably a year from that.”

Currently, PCE is focusing on flax pellet production, but has plans to produce other residue pellets as well.

PCE sells their pellets to a variety of markets, but Cooper references they primarily sell to industrial power plants. He noted these plants burned coal and are now able to burn PCE’s biomass instead. “Our pellets provide steady baseload power and are completely renewable,” he explains. “There are roughly 2,800 BioMass Power Plants (BMPPs) in the world with 2000 more coming online by 2030,” he adds.

Thomas and Cooper initially met at a fund-raising event seven years ago. Thomas was already talking about the business, but Cooper was a little more reluctant to dive right in.

“It took a little convincing for me to see the opportunity,” said Cooper. “But in the start of 2020, I worked with him to write the business plan and after completing the plan, I saw the opportunity was real.”

Thomas asked Cooper to be the CEO, which led them to where they are now, seven years after they first met. Cooper is well-suited for the CEO role, as he has plenty of relevant experience in the business world.

Before joining PCE, Cooper served ten years as the CEO of the Saskatchewan Con-



struction Association. He also worked for the Saskatchewan Urban Municipalities Association and held roles in both the Saskatchewan and Alberta governments. Cooper said he believes his past experience played a large factor in his success. "All of my career has been spent on the prairies, with most of it working in the municipal and construction sectors," he said.

Joining STEP was one of the first things the company did when it incorporated in 2020 and it paid immediate dividends. As a company whose main business involves selling to international clients, STEP has been integral in growing the business.

"The export market is complicated, to be honest," said Cooper. "There are lots of contracts, lots of insurance, lots of risk and STEP helps us navigate that."

He notes that STEP has helped PCE connect with federal and international clients, as well as with research. Cooper said he is pleased that an organization like STEP exists in Saskatchewan.

In just three years, Prairie Clean Energy has seen tremendous growth including the new pellet production facility planned for 2024, but the company is far from done. They have recently received new grant funds from the Government of Saskatchewan and also signed a 200,000 tonne/year agreement with Czarnikow, one of the largest shipping, supply chain, and logistics companies in the UK.



*"Our pellets provide steady baseload power and are completely renewable."*

For Cooper, it is all fairly surreal, and he said it shows what our small but mighty province can do on a global stage. "I'm pretty proud of what we're accomplishing and I'm pretty excited of what the future has to bring," he states.

Visit [www.prairiecleanenergy.com](http://www.prairiecleanenergy.com) for more information on how the company is decarbonizing our energy sources. 



# STEP's Market Intelligence Services

**MAKING GOOD DECISIONS** is essential for operating a successful business, and in many cases, these crucial decisions are made with less than optimal information.

Business decisions are only as good as the information they are based upon, so it is essential that companies arm themselves with current, accurate, relevant and actionable information. Whether you're selling product in Calgary or Beijing, STEP can assist companies in collecting, identifying and analyzing pertinent data.

**Your STEP membership includes services from STEP's Market Intelligence team.** The Market Intelligence team will work with your company to define your information requirements and ensure you have the most relevant and current information available to help you make informed business decisions.

If you are interested in updating or creating prospect lists, exploring new markets, reviewing relevant competitors or other related research, STEP's Market Intelligence team is ready to serve your needs.

**STEP members have access to STEP's Market Intelligence Service at the following specified levels:**

- Pre Market Member: 25 hours
- Regular Member: 50 hours
- Premium Member (Regular): 100 hours

**The reports STEP provides include, but are not limited to:**

- Market assessments and overviews
- Competitive intelligence and analysis
- Political risk analysis
- Potential buyer identification
- Tariff and regulatory information

**Getting Started:**

To discuss your potential research requirements, contact STEP's Market Intelligence Team:  
**Jeff Thackeray, Senior Director, Market Intelligence 306 530 3914**

**Put STEP's Market Intelligence Services to work for you!**

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# PTRC CONTINUES TO INNOVATE AND DEVELOP SUSTAINABLE ENERGY FOR THE PROVINCE



Critical Publications from the PTRC's Weyburn Project

**THE** Petroleum Technology Research Centre (PTRC Sustainable Energy) is celebrating a quarter-century of research and development excellence this November.

Founded in 1998 with the support of both the Government of Saskatchewan and Natural Resources Canada (NRCAN) the company had clear goals when it was founded: 1) help establish the capacity to conduct research in heavy oil and other difficult to access energy deposits at Saskatchewan Universities and other research organizations; 2) develop technologies that will reduce the environmental impact of subsurface energy production while improving the energy efficiency of processes.



"Before the PTRC," notes Ranjith Narayanasamy, the company's CEO and President, "petroleum engineering at Saskatchewan universities was pretty much non-existent. But PTRC was formed to bring together the public and private sector to fund projects that would establish Saskatchewan at the forefront of energy research. We were instrumental in helping to establish the province as a key player in energy R&D"

In 2000, just two years into its mandate, the PTRC began to move in new directions. When Pan-Canadian (eventually Cenovus Energy) decided to begin injecting CO<sub>2</sub> at the Weyburn oilfield to enhance oil production and to store significant quantities of the gas in the process, PTRC developed an international research and development consortium to look at verifying and monitoring the stored CO<sub>2</sub>.

That blossomed into the 12-year, \$80-million-dollar IEAGHG Weyburn-Midale CO<sub>2</sub> Monitoring and Storage Project, the most important research program in the world for developing best practices for the geological storage of carbon dioxide. Major publications and knowl-

edge-sharing from the project has helped to inform new CO<sub>2</sub> storage projects currently expanding worldwide.

"I can't emphasize enough how important that project was to the current expansion of CCS projects around the world, including the decision by SaskPower to complete the Boundary Dam (CCS) facility in 2014," notes Narayanasamy. "PTRC used its learnings from Weyburn to develop the Aquistore CO<sub>2</sub> deep saline storage project for SaskPower."

Aquistore is also recognized for its pioneering work on measurement, monitoring and verification of deep saline CO<sub>2</sub> storage. PTRC is regularly contacted by companies developing new CO<sub>2</sub> storage hubs in Alberta and Saskatchewan to develop safe and effective long-term storage programs."

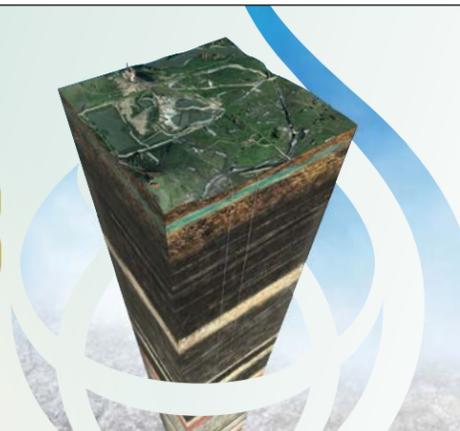
The subsurface data from both Aquistore and Weyburn have also helped to inform another new area of research for the PTRC: geothermal energy and heating. In March of this year the City of Regina approved a new aquatic centre near the downtown that includes a proposed \$28-million-dollar geothermal heating unit. PTRC, with the assistance of key personnel, including a post-doctoral student from the University of Regina, completed the pre-feasibility study for the city.

"For 25 years PTRC has been an innovator in subsurface energy. We plan to continue to innovate and create capacity in Saskatchewan for sustainable energy production, and help the province keep and train highly qualified personnel."

For more information on how PTRC will continue to innovate and create capacity in Saskatchewan for sustainable energy production visit [www.ptrc.ca](http://www.ptrc.ca).

# 1998 TO 2023

25 years of Sustainable Energy Research: CCS, Geothermal, EOR



[ptrc.ca](http://ptrc.ca) | [in](#) [tw](#)

# SaskTel International

## PROVIDING EXPERTISE AND RESOURCES THROUGHOUT THE WORLD



For over 35 years, SaskTel International (SI) has built a reputation for providing expertise and resources to service providers in 40 countries, on 6 different continents. From commissioning fiber optics in the English Channel Tunnel to building networks in Africa, Asia Pacific, and the Caribbean, SI has been there empowering our clients to implement and operate fiber and wireless networks.

The unique value SI brings to its clients is that of being a telecom in continuous operations since 1908. This experience enables us to provide a portfolio of telecom-based expertise to help other service providers on their own digital transformation journeys. As a prominent advisor and resource partner around the world, we help our clients to drive down costs and achieve their business goals through consulting engagements, software integrations, and implementations.

### PIONEERS IN FIBER OPTIC NETWORKS

In the early 1980's, SaskTel designed and constructed the world's longest fiber optic network which was considered a pioneering innovation at that time. Other telecoms took notice and in 1986 SaskTel International (SI) was formed to leverage SaskTel's experience and assist clients design, build, and construct fiber networks throughout the world. In addition, we evolved the business to include software engineering and developed specialized software to inventory, provision, and automate the services over these networks.

### WORLD CLASS PROJECTS

One of SI's most notable global projects includes the English Channel, the largest construction project of the 20th century. SI completed a four-year commitment to lead the design, installation, and commissioning of telecommunications and control systems for the tunnel project. The result was a leading-edge communications system that connected England and France.

### BRIDGING THE DIGITAL DIVIDE

A unique and innovative initiative called CommunityNet launched in 2001 in Saskatchewan. It was the first of its kind in the region aimed at providing province-wide network connectivity to hospitals, schools, libraries, and administration buildings in over 250 locations. SI provided engineering, design, and project and construction management for the creation of this specialized private network. It also enabled us to leverage the core network to extend broadband services to rural consumer and business customers.

### WIRELESS NETWORKS

SaskTel has a long history in building world-class wireless networks and SaskTel International has a long history of leveraging that capability to assist our partners in building and evolving their wireless networks. A client in the Caribbean faced the challenge of having to launch its cellular network within three months. As a longtime partner in this region, SI was a natural choice to assist through a design, build, operate and transition model. Our client was able to successfully meet their obligations and quickly capture market share, begin generating revenue, and over time is well positioned to take on ongoing operation and evolution of the network.

### NETWORK TRANSFORMATIONS

In Africa, SI recently completed a network assessment of a leading incumbent telecom. "We've done a high-level network assessment for them and it was well received," said Scott Argue, EVP – Business Development, SI. "Their company is looking for ongoing assistance to help evolve their network from a largely single vendor network to a multi-vendor network with a focus on higher availability and scaling the number of broadband subscribers they have significantly."

To find out SI can provide the expertise as your partner with first-hand telecom operational experience from building a network from start-up or extending an existing network, visit [www.sasktelinternational.com](http://www.sasktelinternational.com).

[www.sasktelinternational.com](http://www.sasktelinternational.com)



# BrewNinja

WE SIMPLIFY YOUR BREWERY OPERATION



## Brew Ninja – a Software Solution that Keeps Breweries Organized

BY JOE CAMPLIN

**BREW NINJA FOUNDER** Shea Martin always knew he liked to build things. He studied computer science and worked various jobs, including on video games on the east coast and building simulations for the Canadian Navy. However, he had his sights set on owning his own business and always had an interest in craft beer.

While he describes himself as “not very good” at home brewing, Martin had some friends from university who were starting a brewery.

“I noticed some of the problems they were having as they were getting going,” said Martin. “And I had an engineering background and realized I had solved those problems in other industries. So, I built them a prototype and said, ‘this solves some of your problems’.”

Although it took some time, Brew Ninja resulted from that prototype. Brew Ninja is an overall management system for breweries. The cloud-based application includes a sales module that helps with sales and fulfillment, a manufacturing module that helps with scheduling, production and packaging, as well as an accounting module that integrates fully with QuickBooks. The majority of features are available on the web application and there is also a dedicated mobile application which is dedicated more to the sort of things employees need to access on the go.

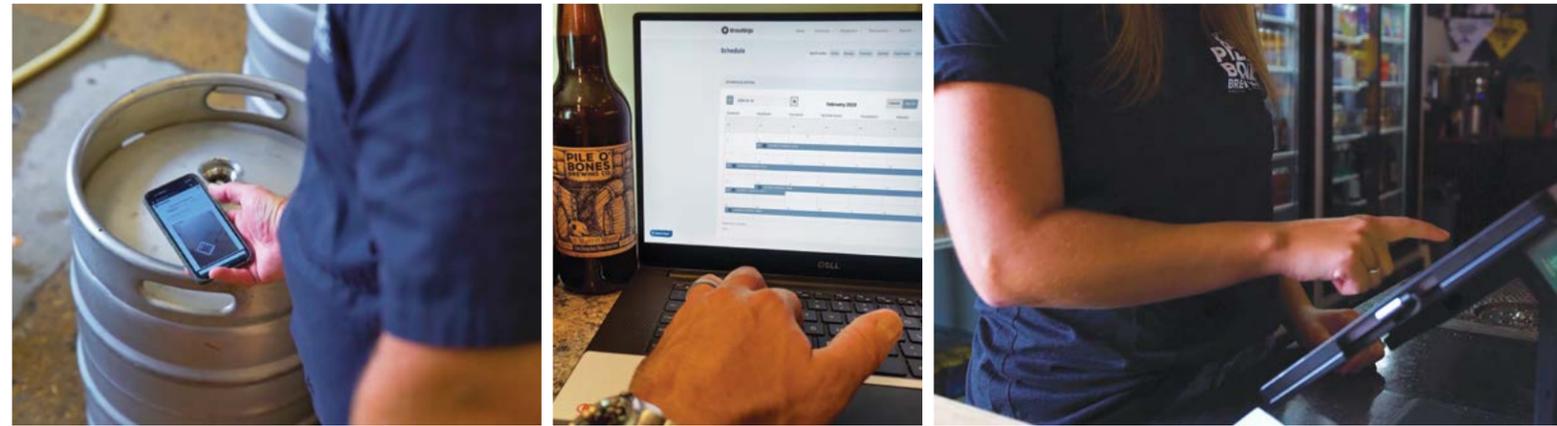


Martin said that most of the initial problems he set out to solve were sales and fulfillment issues. “I saw breweries using a lot of low tech,” said Martin. “There were sales guys texting and then somebody would go write that on the whiteboard and then hopefully it would get delivered on that day.”

It took lots of hard work for Martin to refine the product into something he was willing to sell. His friend’s brewery set him a deadline, and six months later he came back with the pilot version. The product instantly helped the brewery, and Martin knew he was ready to expand.

*“We weren’t sure if it was worth it to drive the booth all that way but we ended up signing a bunch of breweries.”*

However, growth was slow at first. The brewery market is very niche, and it was difficult to connect with new clients. Martin knew he needed help, and ended up hiring a salesperson, who has been there since the start. The pair began attending various trade shows and started to find success. “We were just at a trade show in Denver and there was 50,000



people there,” said Martin. “We weren’t sure if it was worth it to drive the booth all that way but we ended up signing a bunch of breweries.”

The growth continued from there. One thing Martin mentioned the company was able to continue to grow during COVID. “Last year we added 100 customers,” said Martin.

So what was the secret to this growth? Martin noted that the slow growth allowed the company to refine both their processes and product to make it as useful as possible. “Everything started to come together,” said Martin. Last year also included an expansion into the US market, which helped the growth continue.

While the vast majority of customers are breweries, Brew Ninja also has a couple of clients who are distilleries and cideries. Most of the breweries produce 2,000 – 10,000 barrels of beer a year, with some customers producing less than 1,000 and some as high as 20,000.

Another problem Brew Ninja solves is the complicated process of calculating taxes. The taxation of beer can be incredibly complex and can vary wildly from region to region, with regulations changing all the way down to the county level in some US states. A lightbulb moment came for Martin when he was supposed to go out for dinner one night with the owner of a brewery, but he had to work late on his taxes, which

ended up being a six-to-eight-hour process. “If I had that data, I could spit it out for you in seconds,” realized Martin.

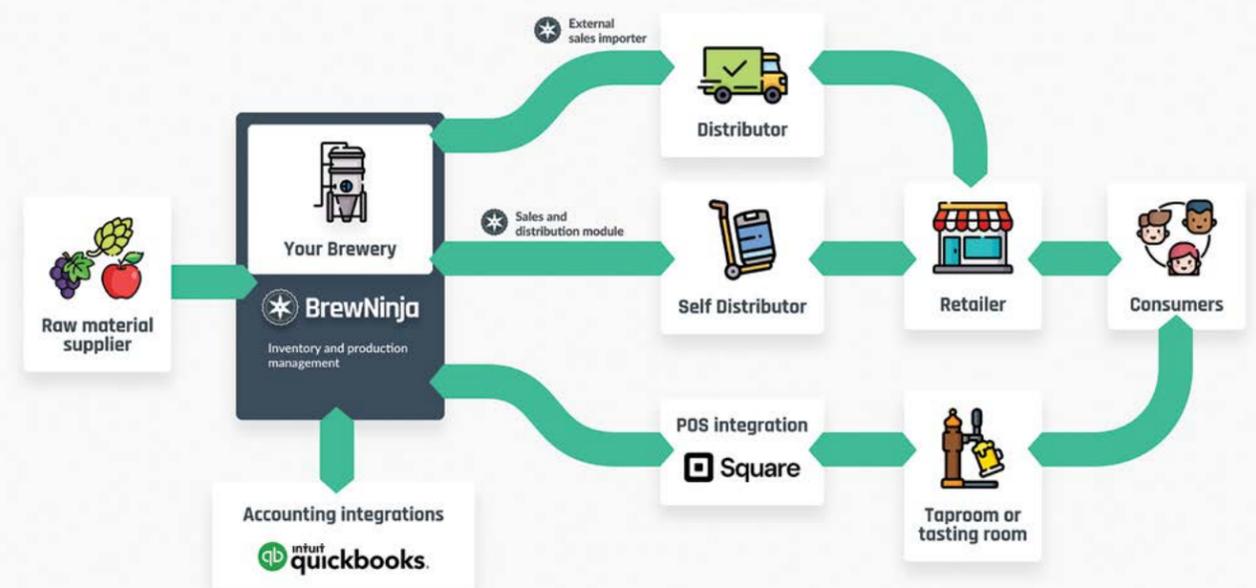
Brew Ninja can instantly calculate those numbers, saving hours of time for brewers. They are also launching their own invoicing platform, which will help combat late payments. “The bar and restaurant industry is notorious for late payments,” said Martin. “There is a huge value to the brewery if they enable auto-payments.”

For this feature, the company is partnering with Square, the popular payment company. They will be working with the beta of Square’s new people-reaching product, which can send reminders and provides the option to enable auto-payments.

Additionally, the payment rate per transaction will be much lower than other methods, which will save customers money. “We’re giving them a better rate, we’re saving them time and it’s a revenue stream for us, which doesn’t cost the brewery anything more,” said Martin. “It’s a win all around.”

Customer feedback on all of Brew Ninja’s features has been positive, and the yearly survey conducted by the company reflected that. The two things that came back was an appreciation for the customer support provided as well as the fact that the product helped solve

## How Brew Ninja works



breweries communication problems. “We have no specific communication features in the product,” said Martin. “But your accounting and management has one place to go look and see what is going on in the brewery; your production team has a schedule and they can see what they need to order.”

Looking toward the future, the company is working on new ways to help larger breweries. This includes suggesting brewing schedules based on what customers typically order. “We know larger breweries that would save a lot of time,” said Martin.

However, the team is also prioritizing refining some of the earlier features of the product. “I’ve got five years worth of features I want

to build, but we’re taking a step back,” said Martin. “Some of the features we built in 2018 have seen no love since they were good enough to check a box.”

Martin said that users use some of these features 10 times a day and they want to make that experience as smooth and positive as possible. “As a software company, it’s easy to get caught up in another feature, another feature, another feature, but the core features have to be something people love to use too,” said Martin.

Being a STEP member has really helped the company. Martin notes they often receive STEP’s help with attending trade shows, from which they saw their initial

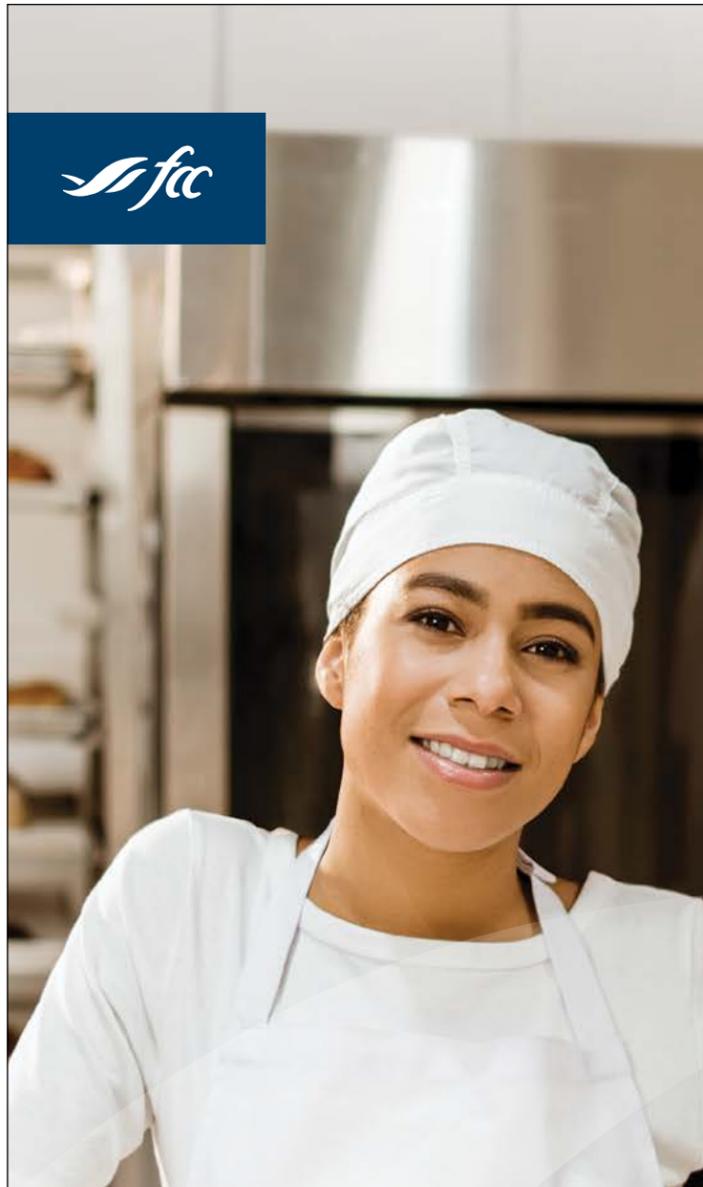
spike in growth. They also utilize STEP’s Market Intelligence, which helped them avoid a market that initially seemed to be a no-brainer. “We took about 20 of our STEP research hours and the results came back and it wasn’t so much of a slam dunk as we thought,” said Martin.

Martin’s journey to get where he is now is an interesting one: his post-secondary education in computer science is far from where he began, “I realized that with literally just a computer, I could build something that made somebody’s life easier,” said Martin.

He worked a variety of jobs, but always knew he wanted to build something for himself. Eventually, the timing was just right. “I had a bit of time on my hands, and it was in an industry I was very interested in,” said Martin. “It just came together like that.”

He said that working for a number of small business owners helped him learn what he needed to do – and avoid – in order to be a successful business owner himself. “I took something away from every one of them,” said Martin.

Now, it is just a matter of continuing to innovate and grow. While that growth is not always linear, Martin is able to put everything into perspective. You just have to remind yourself, maybe it’s not as fast as you want, but as long as you’re getting better every year, it’s a success, said Martin. “The Brew Ninja product and the team are the best they’ve ever been.” For more information on Brew Ninja’s software solutions visit [get.brewninja.net](http://get.brewninja.net). 




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# MGF

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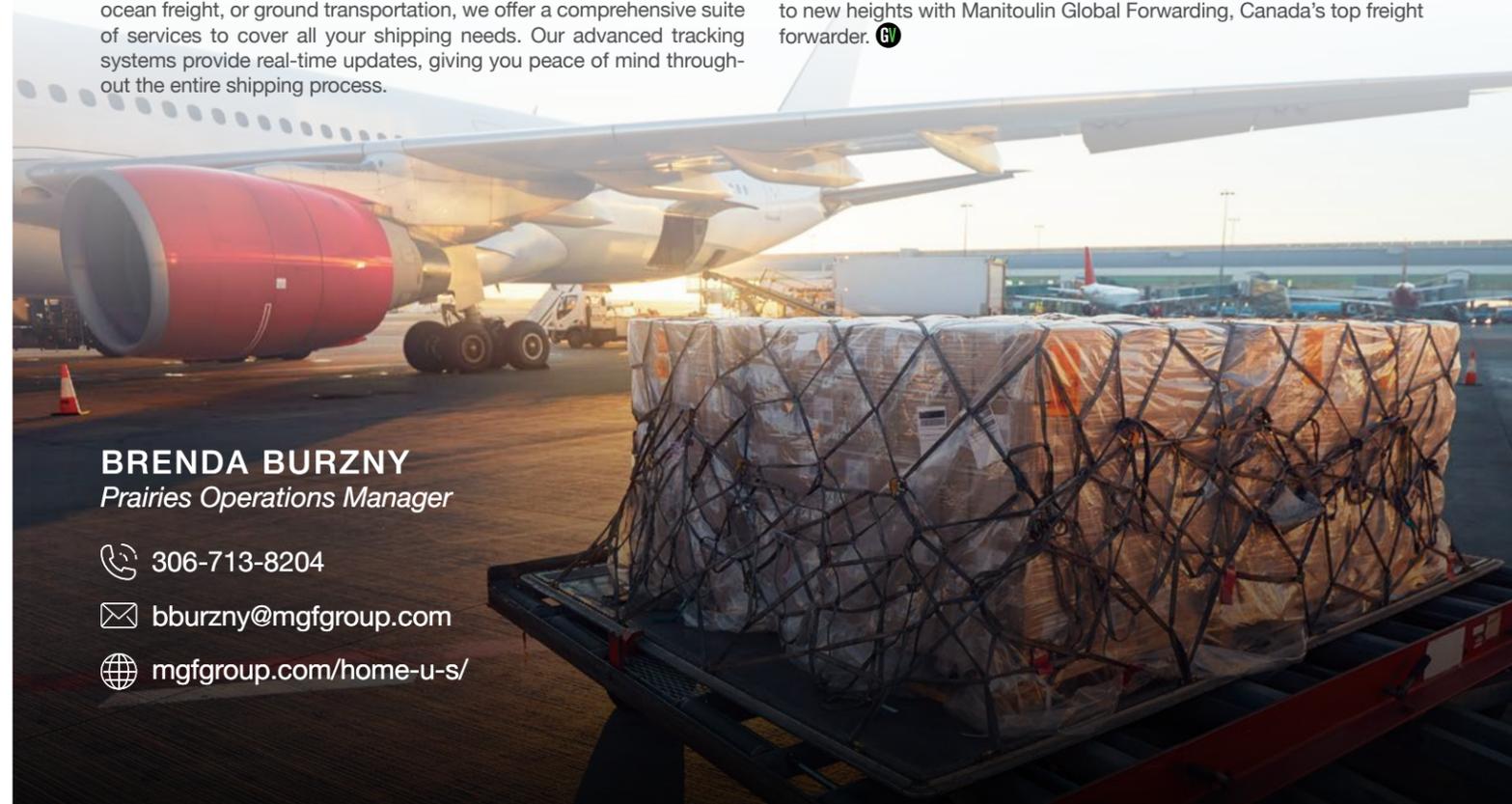
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# Forging the Future Through Indigenous-Driven Innovation and Collaboration



**A NEW PARTNERSHIP** was recently unveiled with a mission to revolutionize not only how commercial, mining, and industrial projects unfold in Indigenous communities but also in broader sectors globally. All3Axiom amalgamates All3Innovation — which encompasses Birch Narrows Dene Development Inc. (BNDDI), MMKL Group Inc., and Superior Strategies — with Axiom Exploration Group, creating a service provider with a unique suite of technical and professional services.

All3Axiom is a limited partnership between All3Innovation, an Indigenous-owned technology business formed in December 2022 to help Indigenous communities grow and strengthen through training and employment. They were joined this spring by Axiom, a consulting firm providing technical and professional services in exploration, geophysics and geomatics, environment, and energy.

Melissa Engdahl, Axiom’s Vice President of Operations and Community Relations said the

partnership is a natural outcome as the groups had been working on joint projects since before the agreement. “Axiom has had existing relationships with the other partners; our services were complementary,” she said. “We



The All3Axiom agreement signing at the 2023 Prospectors & Developers Association of Canada (PDAC) Conference in Toronto.

thought we could succeed together and help each other connect. We thought we could be stronger working together to grow our reach and have even greater impact.”

Axiom is an employee-owned company with its head office in Saskatoon. It provides diverse technical services integrated across its five main divisions: exploration, geophysics and remote sensing, environment, energy services and applied analytics.

BNDDI was created to support the financial requirements of the community and work towards self-determination. The organization has forged partnerships with major companies such as Nex-Gen Energy to build new investments in new projects.

MMKL is also based in Saskatoon, and its products and services include industrial, environmental and technology solutions. MMKL provides solutions to its clients with products and services that are Indigenous-owned and managed and uses innovative solutions to create employment in Indigenous communities.

Superior Strategies is a 100% Indigenous-owned business that offers project management consulting and training services. It

specializes in project management, human resources, business, and economic development solutions.

“As an Indigenous person and business owner, I’m proud to be working with BNDDI, MMKL & AXIOM to create opportunities for Indigenous participation in the technology sector and to be building a company with partners whose philosophy and values align with those of Indigenous peoples — and by that I mean our collective focus on relationship building, protecting Mother Earth and improving the socio-economic health of our communities,” said Jason Thompson, owner of Superior Strategies and CEO of All3Axiom.

In demonstrating their commitment to fostering Indigenous business growth and community development, All3Axiom has become a member of The Canadian Council for Aboriginal Business. Moreover, they have secured certification as an Indigenous-Owned entity, a recognition that stands testament to their authentic engagement and inclusive business approach in promoting Indigenous leadership and participation in the broader economic landscape.

Even before initiating the partnership, Engdahl noted that Axiom had been earnest in widening its supply networks to include more Indigenous vendors. The endeavour gained momentum when they became a signatory to the Indigenous Engagement Charter with the Saskatchewan Chamber of Commerce, a step forward to assessing our own supply chain for Indigenous business’ inclusion and ensuring our staff and team were educated on the history of Indigenous peoples in Canada and Treaty. This move set the stage for outreach to

various vendors, effectively laying the groundwork for the new alliance.

All3Axiom brings crucial skills that contribute to success in a wide variety of exploration, energy, community, and economic projects that use applicable technology options and solutions, as well as a commitment to Indigenous engagement and inclusion to support growth through training and employment.

Currently, the partnership relies on existing staff among the partners to fulfill its contractual obligations. As a new organization, Engdahl said the company is working on project proposals and informing the business community about their services.

“We are dedicated to delivering tangible benefits to our Indigenous partners and the communities we work with,” said Engdahl. “A

*“Birch Narrows Dene Development Inc., our Economic Development entity was created with a vision to participate in innovative, environmentally sensitive and profitable enterprises. Although this vision was set in 2012 it still guides BNDDI. We have targeted strategic partnerships that will align with our rapidly evolving business sector and open new employment opportunities while protecting and respecting our traditional territories.”*

– Jonathon Sylvestre, Chief, Birch Narrows Dene Nation

crucial part of our mission is finding opportunities for training and employing individuals locally when operating in these communities.”

All3Axiom works across Canada in the mining, industrial and commercial sectors and provides technical, ESG and Indigenous inclusion and community relations. These services range from drone pilot operations and ground-penetrating radar to cultural preservation and mentorship.

One of the services that Engdahl is particularly excited about is a new ESG platform

since more companies are becoming aware of the importance of ESG (Environmental, Social, and Governance) to report their successes properly and to keep on track of their corporate goals.

She has high hopes for this platform in the mining industry, where it can be used as a “cradle to grave” tool to create accountability for both sides. It will enable communities and companies to track their level of engagement, the hiring process, supply chains and various vendors. “We are all seeing a need for continued relationship building in a good way between rights holders, stakeholders, industry, government and community in general; All3Axiom wants to be considered dedicated allies in cultivating this.”

“Trust comes with transparency and accountability, and we see our ESG platform as one available tool that can support communications, accuracy, and data-informed reporting for any resource development projects from cradle to grave,” Engdahl explained. “Working and listening to what matters to the community in multiple areas of Environment (including traditional land use studies), social and governance indicators, can now be a reportable dashboard for communication and accountability between industry and the community they work in.”

“We aim to exemplify how Indigenous and non-Indigenous-owned businesses can foster community and collaboration,” said Engdahl. “All3Axiom operates on a principle grounded in shared values and a mutual commitment to the community.” For more information please visit [axiomex.com](http://axiomex.com).

## YOUR LOCAL PARTNER FOR:

### Environmental Services:

- EM-31 Environmental and Groundwater Surveys
- Environmental Site Assessments
- Environmental Monitoring Programs
- Contaminated Site Programs
- Pipeline Monitoring Programs

### Indigenous Engagement Advisory Services

### Geophysics & Remote Sensing Services:

- Ground Penetrating Radar
- UAV LiDAR Surveys
- UAV Photogrammetry
- Ground Surveys



# STEPNOTES

STEP members with noteworthy news are invited to share it through the **Global Ventures STEPNotes** section. For more details or to submit content/photos, please contact Katya Tomlinson, Communications Specialist at [ktomlinson@sasktrade.sk.ca](mailto:ktomlinson@sasktrade.sk.ca).

## SUSTAINABILITY Funding

Through outreach and analysis, STEP anticipates sustainability to be a rising influence in purchasing decisions within supply chains and households. It is increasingly important for Saskatchewan exporters to showcase their capacity to lead in sustainable growth in world markets.

As innovators in every industry, STEP members have stories to tell. STEP's aim is to provide the pertinent information and resources to members so they may develop their own sustainability strategy in alignment with their existing international business strategy. These programs and services are provided in concert with funding from Saskatchewan Ministry of Trade and Export Development.

The Sustainability Promotion Program (SPP) promotes the innovative products, technologies and services of Saskatchewan exports in domestic and international markets. The ESG Strategy Support Program assists members in developing ESG initiatives to support their export market development. For a complete listing of information, visit [https://www.sasktrade.com/services/details/sustainability\\_programming.html](https://www.sasktrade.com/services/details/sustainability_programming.html).

## APPLY NOW for the TAP WINTER 2024 COHORT

Thinking about expanding outside your current market? Ready to grow your business in a new export market?

The Trade Accelerator Program (TAP) can help you enhance the strategic development of your business and better prepare you for expansion. Through a hands-on, immersive workshop and mentorship with subject matter experts, participation in TAP can assist Saskatchewan businesses in maximizing global export opportunities. 96% of TAP graduates feel better prepared for international business.

Don't miss the opportunity to participate in the upcoming TAP Winter 2024 Cohort! For more information and an application form visit <https://www.sasktrade.com/tap.html>.

## New EU TRAVEL Authorization

Canadians planning to visit Europe next year will have to pay for a travel authorization — not a visa — as the European Union looks to strengthen its border security measures. Starting in 2024, Canadian passport holders will be required to apply online for the European Travel Information and Authorisation System (ETIAS) if they plan to stay in any of the 30 European countries for up to 90 days in any 180-day period.

Currently, Canadian citizens can enter Europe without any travel permit or visa and stay for up to three months. However, if their stay exceeds 90 days, a visa is required. From next year, Canadian travellers will have to fill out a form with their personal information, travel document details, level of education and current occupation, details about the intended stay, as well as any criminal convictions. The fee to apply for ETIAS is \$10.

Children under the age of 18 and seniors above 70 are exempt from paying the fee. Family members of EU citizens or non-EU nationals who can freely move throughout the European Union are also exempt from incurring this cost.

## Short Line RAILWAY PROJECTS

Approximately \$530,000 from the province will help short line rail operations to upgrade and expand the tracks, improve crossing surfaces and sight lines, conduct bridge maintenance and track rehabilitations, among other projects.

Highways Minister Jeremy Cockrill says the short line rail industry plays a pivotal role in the province's economy by efficiently transporting agricultural goods and a multitude of other products. Western Canadian Short Line Railway Association spokesperson, Rachel Mackenzie, added these grants provide up to 50 per cent of eligible project costs and improving the infrastructure ensures safe and efficient rail services for their members.

Small networks with less than 80 kilometres of track receive at least \$25,000. The larger networks receive a proportional amount based on how much track they operate.

## CREATING VALUE WITH SUSTAINABLE STRATEGIES

*Karri Howlett Consulting has a supportive method and practical approach to guide clients toward sustainable results and returns*

BY JOE CAMPLIN

**KARRI HOWLETT** and her consulting firm Karri Howlett Consulting are trusted experts in ESG and business strategies that empower organizations and create value for companies. In her almost two decades of consulting experience, Howlett has helped businesses of all sizes with strategic planning, financial strategy, risk management, and mergers and acquisitions. And, with Environmental, Social, and Corporate Governance (ESG) strategies becoming more and more valuable, Howlett has started shifting focus into those areas.

"In the last several years, I've also been offering sustainability and ESG strategy consulting," said Howlett. On the ESG side of things, she often works with larger companies, helping them convert their Corporate Responsibility policies into strategies and policies that focus more on value creation from sustainability and ESG.

However, she also works with smaller companies, which presents different challenges and opportunities. "For the companies that are just getting started in ESG, I'm here to simplify it, make it practical and maybe a little less scary for them," said Howlett. While the entire breadth of ESG is significant, focusing on the top three-to-five strategies which are most impactful to stakeholders helps companies get started.

Implementing a sustainability and ESG strategy provides a company with many benefits:

- Attract investment from sustainability-focused investors and government programs for sustainability initiatives
- Attract sustainability-focused customers
- Recruit employees who are looking for an employer with sustainability values and practices
- Create impact in your local communities that goes further than just donating money

"I do a stakeholder analysis, using public information, to help them figure out the most important things to their stakeholders from an ESG lens," said Howlett. After recommending a handful of key things that companies should focus on, the next step is gathering the information that companies already have in these areas. "They're already doing a bunch of this stuff, they just haven't reported on it in an ESG way," said Howlett.



Finally, Howlett will help companies implement an action plan that gets them from where they are to where they want to go. "Once they have the strategies that we want to focus on, and how to achieve those goals, we put that in an ESG report that will then be communicated to stakeholders," said Howlett. For larger companies, the new International Financial Reporting Standards (IFRS) rules will require disclosure on material sustainability matters beginning in 2024. For smaller corporations, ESG reporting can also be completed in less than a year.

Howlett started her consulting business in 2006, after working in the mergers and acquisitions sector, where she oversaw mergers in the \$4-7 billion range. Eventually, she decided to start her own consulting firm. "I decided to work as a consultant so that I could expand my experience and expertise to different industries," she said.

Howlett recognizes the importance of ESG strategy and is committed to educating businesses on the opportunities it provides. She hosts monthly information sessions in Saskatoon as well as a variety of workshops. "What I do can be applicable to really any company or any industry," said Howlett.

Being a STEP member has helped Howlett connect with clients and better understand their needs. She makes use of STEP's market intelligence services. "I find those extremely beneficial for getting a base understanding of different markets," said Howlett.

She is also excited about the new STEP sustainability programming and the funding opportunities it will provide for exporters. "I'm excited to be a service provider that can help exporters with achieving and communicating the things that they're doing to potential customers and other stakeholders that are sustainability focused," said Howlett.

Having lived and worked in Saskatchewan, Howlett has seen the province begin to focus more on promoting and enhancing sustainability, which is encouraging. "Saskatchewan is such a resource-rich and community-based province and we are always taking care of each other," said Howlett. "I think we have a really great story to tell."

For more information visit [www.karrihowlett.com](http://www.karrihowlett.com). 

Register now for our Upcoming ESG Accelerator Program starting **October 25**

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SCAN TO REGISTER

## AGM & BUSINESS NETWORKING

October 5th, 2023, 10:00-11:30 AM  
PrairieLand Park, Saskatoon, SK

Join us as we thank the outgoing STEP Board of Directors for their service to the Saskatchewan exporting community, welcome the incoming Board to a new year of exporting success, and discuss the 2022-23 year of connecting Saskatchewan business with the world. This is also a chance to network with the Board and Staff of STEP as well as the exporting community at large. Coffee and light refreshments will be provided. We look forward to seeing you there!



## Digital Smarts + Mechanical Dexterity + Autonomy = Safety

BY BILL ARMSTRONG

**WITH ITS FIRST** commercial autonomous railcar loading solution now installed at a Saskatchewan potash mine, Saskatoon-based RAYHAWK has achieved a major milestone. The installation is an intelligent gantry system that uses multiple cameras and sensors to detect the location and the orientation of the latches and lids on railcars used to transport bulk products like potash and grain. Software algorithms and servo motors then guide the mechanical components that open and close the latches and lids.

“RAYHAWK was born out of a need for safety,” said Brook Davis, the Director of Business Development & Marketing for the company. “It addresses a one-hundred-year-old problem by applying new technologies to improve safety and increase efficiency in handling top-loading railcars.”

The problem is simple and straightforward: the people opening and closing the lids on railcars are working at heights, often in difficult weather conditions and corrosive environments. It is a risky job. And, it is one that RAYHAWK General Manager Tom Boehm is familiar with, since his father Ray worked more than 30 years doing just that at a potash mine. Combine Ray’s name with images of a hawk identifying its target, swooping in and then moving on to another target, and you have the essence of the RAYHAWK solution.

Arriving at that first commercial installation has been a methodical process which began in a world changed by COVID, Davis empha-

sized. It originated with an idea and some additional insights into a possible solution – developed by RAYHAWK’s parent company, Team Power Solutions – which was then pitched to local potash mining and grain handling companies.

Davis likened it to applying a digital focus to a common problem that puts workers at risk.



The feedback from these potential customers was positive; there was a need for such a solution. In deciding to pursue the concept, Team Power Solutions also made the strategic decision to create a separate company and

brand that reflected the unique nature of the product. The next step in the project life cycle employed by RAYHAWK – detailed engineering – involved combining computer automation technologies with mechanical engineering and design.

“Mechanically, it is a simple, robust design, combined with very advanced technologies,”

Davis said. “It is designed to operate from -40C to +40C, both of which are possible in Saskatchewan. Some load-out facilities are indoors, but some are outside. Either way, if it works here it will work pretty much anywhere.”

In June 2021, RAYHAWK unveiled its working prototype, followed by a refining and enhancing process that included the first stationary lid opening, and then opening the lids in motion. By the spring of 2022, the company had outgrown its 4,000 square foot prototype facility, moving into an 11,000 square foot facility in Saskatoon’s southwest industrial area.

Throughout its growth process the company has recruited engineering and computer science talent from the province’s universities – including interns from the University of Saskatchewan’s computer science co-op education program. It has also taken advantage of the practical research capabilities offered by the Research in Additive Manufacturing and Prototyping Lab at Sask Polytechnic in Saskatoon, in particular its rapid proof-of-concept and prototyping expertise. From its initial head count of two full-time employees RAYHAWK has grown to 12.

In fall 2022, RAYHAWK began operating its second full-scale prototype and preparing for the on-site installation at a potash mine, which took place over the winter. “Our project life cycle process includes commissioning the installation, optimizing it, and providing ongoing support,” Davis explained.

RAYHAWK’s optimization process has produced some additional key features for the

product, including the Air Knife, which removes snow, ice and debris from around the lids and latches. Engineers and designers also perfected the lid opening and closing actions, which required an agile and adaptable system, since the lids experience a lot of wear and tear over time.

RAYHAWK is currently developing a sophisticated cutting device that removes the seals on the lids by cutting the stainless steel cables on the latches that protect shipments from being tampered with. It is also working on the capability to re-seal the lids after the railcars are loaded with product.

“That device requires a combination of machine learning and mechanical finesse that is challenging,” said Davis.

RAYHAWK is also exploring other advanced features to de-risk railcar loading and unloading operations, such as cavity inspection. This procedure requires a worker to check inside an emptied car for any product residue by poking their head through an open hatch and shining a light around.

This task is necessary to prevent residues from contaminating or spoiling new product being loaded into the cars, and one that obviously can be completed more safely using a camera and lights, Davis noted. It is on the company’s feature development list.

Other future refinements include developing systems to open and close lids of railcars carrying liquid products, and to provide customers with logistical and other information that will help them create efficiencies within their load-out facilities.

Davis agreed that completing its first commercial installation expands RAYHAWK’s credibility among the major players in the industry. He also pointed out that some customers may not want a completely integrated solution, but may require a particular piece, such as the Air Knife, for example.

“No two load-out facilities are the same, and we need to engage with and learn from our clients about their specific needs. From fully autonomous railcar loading to using specific pieces, there are many opportunities to optimize and create efficiencies within the different load-out facilities,” Davis said.

“Saskatchewan has a well-earned reputation for ingenuity and problem-solving, responding to needs in different industries. When I visit the office where our digital coders and designers work,” Davis continued, “I see youthful enthusiasm tackling problems in an open-ended way, and figuring out solutions. Saskatchewan is a well-kept secret in much of the world, but I believe we punch far above our weight class, and RAYHAWK is a perfect example of this.” For more information visit [www.rayhawk.ca](http://www.rayhawk.ca). 

“RAYHAWK was born out of a need for safety.”



**Reducing Risk Through Autonomous Railcar Loading**



**Western  
Heritage**



**BY RON  
PODBIELSKI**

## Founder Reflects on Archeological Projects and Achievements

**BACK IN 1990**, seven Saskatchewan Research Council employees bravely set out to the private sector.

Today, Western Heritage has blossomed to some 30 professionals offering a range of services from archeological and heritage management, UAV and LiDAR, GIS and remote sensing, geotechnical and community project engagement.

Approaching his expected retirement next summer, President Jim Finnigan can recount a broad history of exciting projects around Canada and abroad. That includes excavating on the route for Highway 11/17 in Ontario in the early 2000s, a game changing project for archeological-based businesses.

Confronting its then-biggest undertaking, Finnigan said Western Heritage realized it “needed to work a lot more closely with Indigenous communities, because we were studying their history.”

“We had regular meetings with the Chief and Council regarding the affected areas and built a strong relationship with the communities in the Thunder Bay area.

An elder came out to bless the project. He said while it was sad to see two important archeological sites disrupted by a highway, he was satisfied with everything done and that the community needed the infrastructure.”

That project beneficially changed how Western Heritage builds relationships with Indigenous communities, something Finnigan said, “changed the pace of archeology and made it better.”

Western Heritage has similarly pushed the envelope with geophysics and remote sensing services, using UAVs (drones) to enhance what satellite imaging can provide, helpful for oil and gas companies seeking to identify and prevent problems like invasive species on potential pipeline projects.

“Companies providing standard satellite imaging charge for 100 square kilometres. You can get down to perhaps 15-30 centimeters of resolution. But with drones, we routinely fly to five centimeters resolution, so it’s much more cost efficient and accurate.”

High-resolution drone imagery has helped Alberta’s Agriculture Financial Service Corporation settle crop insurance claims from animal damage more accurately. Western Heritage creatively built an algorithm using customized UAV imagery, a much superior tool for human estimation of damage.

Western Heritage has also used LiDAR, a detection system which uses light as a form of laser, for clients as varied as the Water Security Agency and SNC Lavallin, helping them estimate the size of reservoirs.

Some of Finnigan’s fondest memories come from Saskatchewan projects, including working with the city of Humboldt to uncover and preserve its original telegraph station, which played a role in the 1885 Rebellion.

*“They’ve really done an excellent job in interpreting and commemorating the location.”*

“We managed to confirm the location of the telegraph station, a farmstead, a previously unknown house, as well as a military encampment and a supply

post, Fort Denison. Chief Whitecap was also held there for several weeks.”

For most of the last two decades, employees returned to the site, working with local volunteers and school groups to unearth more “cool” artifacts. The community bought the land, turning it into a site where visitors can do self-guided tours with story boards and art installations. It also provided Western Heritage with an opportunity to test geophysical applications such as ground penetrating radar, magnetometry, and resistivity in locating

buried historical features.

“They’ve really done an excellent job in interpreting and commemorating the location.”

Over the years, Western Heritage has worked closely with the Department of Anthropology and Archaeology at the University of Saskatchewan. Many students who went through the department had their first archaeological jobs with Western Heritage.

As he and Peggy McKeand, the last two original founders, move towards their retirements, he remains confident in the future of Western Heritage.

“90 to 95% of the staff has at least one graduate degree and several have two. They are not afraid to share expertise and they are really gung-ho on applying innovation,” said Finnigan, joking that creativity also comes from the “inherent laziness” finding new ways to do our jobs quicker and better.

“We’ve put together an excellent team of professional in-house staff who will replace the retiring executive.”

While he is proud of the company’s evolution and achievements, Finnigan is looking to the phase of his life, retirement, as he will turn 70 in 2024.

“I plan to spend time with my family and grandchildren and maybe pick up a hobby or two, because I still feel I have a couple of decades left.

“My father is 95 and he’s the model for my thinking. He just got a 10-year passport over a five-year one because of the price difference,” says Finnigan, with a chuckle. “I’m thinking if he plans to be here at age 105, I’m just in part one of my journey!”

McKeand is also looking forward to retirement, spending time with family and friends and continuing to enjoy nature, whether it is the backyard, parks or on special trips.

For more information on Western Heritage visit [www.westernheritage.ca](http://www.westernheritage.ca)

## STEP Staff Profile

# Peter SIARKOS



**BY JOE CAMPLIN**

*“It’s really rewarding and definitely makes me feel good for being able to provide some guidance and support to our members.”*

**WHEN PETER SIARKOS** started university, he wasn’t totally sure where his journey in the business world was going to take him. He decided to enroll in an international business class and was instantly hooked.

“That was really what inspired me to pursue a career in international business,” said Siarkos. “I signed up for other seminars they had available to students, and then decided to take as many university electives in that area as possible.”

Siarkos concentrated on international business while studying commerce at the University of Saskatchewan. In one of his classes, a former STEP employee spoke to the class. “I never thought I’d be here today working for the organization,” remarked Siarkos.

Siarkos started with STEP in February as a Trade Specialist in Manufacturing and Technology. “It’s really rewarding to be able to help Saskatchewan companies in terms of exporting goods and services outside of the province,” said Siarkos.

Most of his role involves connecting with STEP members and ensuring they have all the information and tools they need to succeed in the international market. It also involves helping businesses work through any number of challenges they face in today’s economic climate.

“There are some unique challenges members encounter when they want to do business in a new country, a new region or a new market sector,” said Siarkos. “For areas where STEP can assist, we share information, programs and services.”

Siarkos already finds his role at STEP to be very rewarding. “It’s quite captivating learning some of the things I have never thought of in terms of solutions and services exported by Saskatchewan companies.”

Another part of his job is organizing and planning trade missions, which can be a lengthy process. He is currently working on recruitment for the World of Asphalt Expo, which takes place in Nashville next March. Siarkos says organizing the trade missions becomes easier after the initial steps are complete. “Once the trade missions are planned out, it’s just a matter of ensuring all of our membership is aware of those trade missions so they may participate.”

Siarkos added that he enjoys the culture and team at STEP, working with individual members and supporting them as they transition into new markets. “It’s really rewarding and definitely makes me feel good for being able to provide some guidance and support to our members,” said Siarkos.

Before working with STEP, Siarkos served in a variety of roles in international business and had the opportunity to travel. “That certainly helped kickstart my passion for international business, and in terms of some of my previous work experience, travelling to Saudi Arabia and the United Arab Emirates helped establish partnerships and maintain existing connections as well.”

He was able to gain unique knowledge and insight in a variety of industries, which helps him in his current role. The experience he gained helped him realize how important an organization like STEP is in a province such as Saskatchewan. “The marketplace is very competitive,” he said, “There’s a lot of innovations coming out from all around the world and turning ideas into feasible business opportunities is not easy. In many cases, it not only requires capital, but also market guidance and knowledge.”

Trade Specialists like Siarkos can provide very important market intelligence to STEP members which is not always easy to obtain. “At the end of the day, to grow a business and scale, there’s that financial component to it and making sure that they’re focused and growing in that area will hopefully help generate the most results,” said Siarkos.

When he is not working, Siarkos enjoys spending time outdoors, whether it’s walking his dog or golfing with friends. He also likes checking out any concerns that come through the area.

As Director, Manufacturing and Technology, Traded Development, Siarkos is excited to continue to learn while helping Saskatchewan business achieve their goals. STEP is the perfect place to make that happen. “The best part about it is we’ve got such a diversified group within our organization.”

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