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Focus on *Innovation*

PORTFOLIO



Generator, Innovator

Growing Greener Innovations brings greener energy to the world

Connie Stacey is not one to shy away from a challenge.

In 2014, she set an ambitious goal. After 20 years working in IT, she wanted to make a change. She wanted to enter the world of entrepreneurship. And she wanted to find a way to provide power to billions of people around the world.

She wanted to solve energy poverty.

Over the past six years, Stacey has made some major strides towards this goal. She has learned the ins and outs of how batteries work. She's brought game-changing ideas to market. And developed relationships with clients and partners around the world, from Peru to India, Singapore and the Philippines.

It's hard to believe her growing influence

all started with a single noisy generator.

"I was off for a walk with my twin boys — they were about three months old — and I went by a house being built that had a diesel generator running," she says. "And I thought, if you wake these babies, I swear, I am going to lose it."

The moment stuck with her, well after she returned from the walk. She started thinking about generators, and energy in general.

"I started thinking to myself, why do we use diesel generators? They're the worst. They're horrible on the environment, they're loud, they're expensive, everybody hates them, they're a must, not a nice must to have," she says.

Although she didn't have experience in ►



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Money on a mission.

Put simply, the Social Enterprise Fund (SEF) is a loan fund. We invest in social entrepreneurs who want to make things better in the community and in the world. We provide patient capital at reasonable rates to help put dreams to work.



the energy sector, or with batteries, Stacey did have two decades of experience in IT. She also had a general understanding of electrical and computer components. And most importantly, she had a desire to make change.

"I researched it for a good while and I learned more about batteries and I kind of had this thing where every single day I had to do one thing towards making this product come to life," she says.

About 15 months later, she came across the concept of energy poverty — the concept of large parts of the global population not having enough power to light or heat their homes.

It affected nutrition, health, and even safety.

The statistics she learned were startling. First, that there are about one billion people in the world who have zero access to energy.

"They're candlelight only. That's one in eight people. That's astounding," she says.

Second, that there are 2.6 billion people who don't have enough energy to cook in any way other than to burn something.

"For a lot of them it's open fire, it could be garbage, it could be debris, it could be just about anything," she says. "And the offshoot of that is that it's one of the biggest causes of acute lung disease and illness in the world."

And third, about half the world's population lives in what is called 'domestic

"What I'm building has a potential not to just be a good business. This could change the world for people who are living in poverty."

— Connie Stacey

energy poverty,' which, she explains, is where people either have consistent, low-voltage power, or only have power for certain hours of the day along with rampant blackouts.

"Where we are, especially in Alberta, we are so privileged in terms of our energy. It's like a non-issue here," she says. "So when I

learned this I thought, wow, okay, what I'm building has a potential not to just be a good business. This could change the world for people who are living in poverty."

As she learned more about the impacts of energy poverty, and its negative correlation with economic growth, she grew more determined.

"And that's when I said, 'You know what? I'm gonna do this,'" she says.

Since then, Stacey has learned the minutiae of batteries. She understands not only how they operate in general, but the features that make them sustainable or not. She's uncovered ways to make them more environmentally friendly, to reduce waste, and make them more practical in extreme conditions.

She started by addressing the conditions that would be the hardest on temporary power sources. Two of the most extreme options she could think of were a community in



is determined.

The generator is what Stacey calls input agnostic, meaning it can be powered by a range of different power sources, be it solar energy, or lithium ion, or solid-state lithium batteries. What's more, the generator has undergone extensive field testing done with the Department of National Defense to highlight the practicality and efficiency of using different power sources.

"It works seamlessly," she says. "So the idea is when the next new battery chemistry comes out, you don't have to start from scratch, you just keep building onto it, you only replace that which needs to be replaced."

But the Grengine and folding solar panel are just the first steps in Stacey's path to ending energy poverty.

As the groundwork comes together for Growing Greener Innvation's Edmonton production facility, Stacey sees it as another win. Her goal is to develop roboticized manufacturing facilities that can be built in markets around the world in order to answer worldwide energy needs. By using roboticized manufacturing, Stacey aims to reduce the ecological impact of shipping and producing components worldwide.

"Well think about the footprint that your average battery has in going around the world as it's produced," she says. "We wouldn't even ship from Canada 'cause the environmental footprint just wouldn't make sense"

As demand grows around the world, Stacey hopes Growing Greener will be able to build its production capacity with regional facilities.

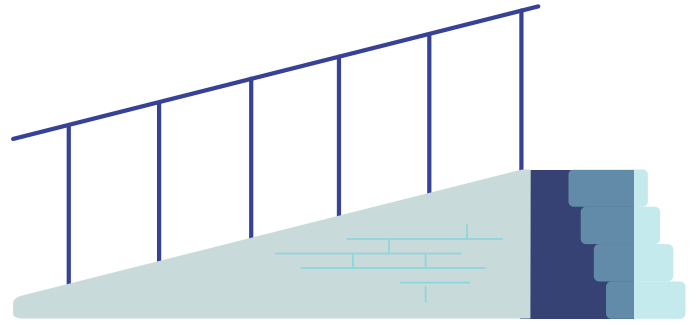
But first, she wants to get the groundwork right. With construction underway on the Edmonton facility — thanks in part to Growing Greener's relationship with SEF — Stacey's looking forward to ramping up production. She expects the facility to be operational by mid-2023. In the meantime, she'll keep pushing towards her goal of ending energy poverty. One meticulously researched step at a time.

"So stay tuned," she laughs. □

Northern Canada, with no other access to power, and a rural village in sub-saharan Africa. She wanted to create a power source that had three broad features: it had to be simple and easy to use — so you didn't need to be an electrician to operate it; it had to be portable so it could be used in remote areas; and it had to be scalable in order to answer varying needs.

The resulting products, the Grengine solar battery generator and folding solar panel are Stacey's first major milestones along the path to solving energy poverty. And while she knows the goal of ending global energy poverty is a way's off yet, Stacey





Included by Design

Universal design, universal appeal

Sean Crump knows what a difference *Universal Design* (sometimes also called inclusive design or barrier-free design) can make, and he's on a mission to see it included in every building across Alberta.

As the co-founder of Calgary-based Included by Design, Sean Crump has already worked with clients like the Glenbow Museum, the University of Calgary, the Canada Lands Company and Calgary Pride to help them build accessible and inclusive spaces.

His passion for inclusive design can be traced back to 2004, when at age 19, a diving accident left him a quadriplegic. The sudden change was devastating for many reasons, not the least of which was the shift in the way people treated him after the injury.

"I noticed a massive discrepancy in what my life was and then

what it became. Not just physical challenges and barriers — there were a lot of systemic challenges beyond just not getting somewhere," he says.

"It was even the expectation that somebody has in terms of a disabled person's ability to contribute to something or what their capability was. It was like I was being congratulated for getting out of bed that day, even though I'd been doing that for 19 years before that."

Nearly two decades later, Crump has become an active voice in the disability sector, working to bring awareness to issues of inclusion and accessibility. He now sits on several boards and committees, including the federal government's technical committee for accessibility, and the boards of Barrier-Free Canada, Cerebral Palsy Alberta and Voices of Albertans with Disabilities. His goal is to change the conversation around how people with disabilities are included and supported in society — and that starts with some foundational work.

Today Crump's firm, Included by Design, promotes the concepts of Universal Design — things like automatic doors, entry ramps and adaptive lighting — which make spaces more inclusive, usable and accessible. He explains that the *Accessible Canada Act* — which governs Canada's building code for barrier-free buildings is still in its infancy. He says it has a long way to go, which means there's a lot of opportunity for growth.

"It's credible that Canada's trying to do it the right way, to make sure we're putting something in place that has some ability to create impact right away," he says. "But there's a lot of ground to be made up, a lot of inequity that's been experienced for much, much longer than I've been dealing with it."

Outside of his own personal experiences, Crump also sees Included by Design's work as crucial to future consumers. The World Health Organization estimates approximately 15 per cent of the global population lives with a disability today. In Canada, statistics suggest an even higher number—with 22 per cent of the population living with a disability. Demographic trends and medical advancements mean people with chronic conditions are living longer, so the percentage of the population with a disability is expected to continue to rise.

"It's a good niche to be in because I'm very connected to it and I feel like it's something that needs a lot of correcting and there's a lot of population impact," he says.

Krooshal — An Accessibility App

Crump has also spearheaded the development of Krooshal, an app featuring certified accessible and inclusive businesses across Calgary. The locations have all been vetted by Included By Design, and are plotted on a virtual map for users. The beta version of the app launched in 2021, and within a few months, included profiles of dozens of businesses, ranging from restaurants and coffee shops to conference centres.

Working with Thin Air Labs, Included by Design has grown the app to include restaurants across Calgary. The platform can be used for any industry and virtually any user interest, from going out socially to finding employment, traveling or otherwise. In the future, Crump hopes to expand even further — both geographically, and for different user bases.

"The great thing is, we've got data with the app. So we're trying to understand how it impacts and how it provides value to this community to ensure that this is something that is meaningful but also useful," he says. "We want to really get ahead of ourselves on some elements and be truly reliable, to make sure needs are met from the user's perspective." □



Kemet Advanced Manufacturing

A local prescription for global health

For as long as she can remember, Moréniké Oláòşebikan has been determined to make a difference.

“I think it has something to do with the fact that I was born in Nigeria in what became the height of the HIV epidemic,” she says. “My father was a physician. My mom worked at the food and drug agency. Something about my childhood made that top of mind for me in a way that really is inexplicable, but I just knew I wanted to be part of a solution for people living with HIV in African countries.”

When she came to study at the University of Alberta, Oláòşebikan remained steadfast

in her commitment to making a difference for people living with HIV in African countries. Even as a student, she worked to put on a fashion, art and music show to raise money for HIV relief in African countries — an initiative that would later go on to become the Ribbon Rouge Foundation. In her first year of fundraising, she raised \$2,000 — an impressive amount for a student-led fundraising night — yet these humble beginnings were just the start of what Oláòşebikan hoped to one day accomplish.

Today, as the CEO of Kemet Manufacturing, Oláòşebikan is ►



closer than she's ever been to changing the lives of thousands of people worldwide. After graduating from the University of Alberta's Faculty of Pharmacy, she began researching some of the issues faced by pharmacists and healthcare professionals across Africa. What she found devastated and frustrated her.

"So if I'm a pharmacist and I'm ordering drugs for my country today, I will not get those drugs for another half a year. Six months. Not only is

this baffling to me in this day and age, but it's accepted, it's not even challenged. It's just seen as 'This is the way it is,'" she says. "And that broke my heart. I just could not find a way that that was acceptable."

Exasperated by her findings, Qláòşebikan began looking for solutions. She realized that what was missing was responsive pharmaceutical manufacturing, carried out in Africa. What she didn't know was how to make that a reality.

"I had come up with this idea that we needed a small footprint, preferably modularized, scalable agile medication manufacturing. But I'm a pharmacist, I'm not an engineer. Not only do I not have a clue about how to build this thing, I didn't even know which profession would build this thing," she laughs. "So I started connecting with people to figure it out."

She began to study literature around pharmaceutical manufacturing and meet with anyone who would talk to her that had expertise in modular manufacturing. In time, she found that researchers at MIT, the University of Montreal and Cambridge had already been pioneering some of the ideas that she'd been curious about. She knew she was onto something.

"At that point I knew, well, I'm not completely off my marble," she says.

In 2021, Qláòşebikan launched Kemet Advanced Manufacturing into full operation, (with financial support from Social Enterprise Fund), with the goal of producing its first modular manufacturing units by mid-2022. For now, Qláòşebikan and her fast-growing team of researchers and contractors work out of a lab in the Edmonton Research Park, where they are working to prove the concept and business model for Kemet's manufacturing facilities.

"What I'm really wanting to understand at the moment is what the disparities are and what the drivers are for shortages, because then it would give me a really good sense of where and how we're needed," she says.

At present, the prefabricated labs are planned to manufacture medications for conditions like HIV, malaria, and mental and cardiovascular health. After the first facilities are manufactured next year, Qláòşebikan hopes to see them distributed to countries across Africa, while they will remain digitally connected with the Canadian lab.

In addition to supporting the countries where the facilities will be shipped, Qláòşebikan is working to integrate positive, socially responsible business decisions throughout Kemet.





From looking to build the facilities out of factories located on and run by Indigenous-owned firms, to creating more jobs for women in STEM, Qláòşebìkan is working to empower others through Kemet.

“It’s really about looking at how we build capacity in these areas that we’ve lost our capacity — creating local manufacturing, the technology that supports it, and the knowledge base that supports it,” she says.

Kemet is only in its infancy, and Qláòşebìkan is confident she’s only scratched the surface of what’s possible. Today, she is just as determined, if not more, than ever before. And she knows that with a little more collaboration and support, great things will happen.

“What I want is anyone who is interested in finding a solution to drug insecurity globally should reach out to me, and we should find ways to work together,” she says. “This is a complex problem I’ve chosen to chew on, and I have always been a believer that complex problems require a lot of humility. That humility often gets expressed in collaboration.” SEF is proud to be one of those collaborators. □



One Family Law

Why Can't We Be Friends?

By Kevin Maimann

An Edmonton lawyer is piloting a harmonious approach to divorce settlements that could change the game in Canada.

Melissa Bourgeois, with One Family Law, spent the first few years of the COVID-19 pandemic working on a process that allows one lawyer to represent a couple together in legal separation from start to finish, a practice that is currently barred in Canada.

"It's really a paradigm shift," Bourgeois says.

"Most people's viewpoint is that there is only one way to do this — you have to hire your own lawyer, your lawyer represents your interests, you need to go into this very secretive kind of weird portal that you come out of four years later and \$100,000 poorer and still have no idea what happened."

Bourgeois saw the process at work in the United Kingdom, where she says it has become the de facto model for amicably divorced couples. The concept of using one lawyer struck a chord with her, having had a tumultuous career in family law and mediation.

She took a huge risk working for two years on proposals for the Law Society of Alberta, not knowing whether she'd get the green light. She was eventually granted permission and formally launched her pilot project, the One Family Lawyer Model, in January 2023.

Bourgeois says she's found many separating couples genuinely want the best for each other. This approach can be especially appealing to parents who want to maintain a constructive co-parenting relationship that will allow them to, for example, attend their kids' soccer games together.

"It's a very weird concept to say we're going to hire a lawyer together

because we want each of us to come out of this as well as we can. This oppositional kind of conflict-driven narrative is something that, throughout the years of my practice, I was finding people just simply don't want," she says.

"The average family doesn't really have a huge amount of resources to be spending on lawyers. It's a very mystique-driven process... so this is really putting the power back in people's hands, providing them with impartial legal information that applies to them. The idea is they decide from there what the terms of the separation should be."

The pilot is, first and foremost, a legal reform project.

Canadian law currently precludes lawyers from representing opposing parties in a dispute because it's viewed as a conflict of interest.

Bourgeois says she's heard positive feedback from clients and colleagues so far, and, with financial support from SEF, has cleared her slate to focus her practice solely on this model.

She's even started drafting a book that will help people understand the framework of an amicable separation, and even empower some couples to do it themselves without lawyers.

Bourgeois views the one-lawyer approach as being helpful to overworked lawyers and the judicial system at large, as well as clients who want a relatively quick and painless divorce experience — she says most cases can be finished in six to eight weeks.

"Anything that keeps people away from the courthouse I think would be supported by the judiciary. It's a system that is over-burdened right now," she says.

"If we're not ready for it, it is going to be coming anyway. This is Alberta's opportunity to showcase just how innovative we are, and how we are nimble enough to bring forward big changes to the way of thinking." □

"Anything that keeps people away from the courthouse I think would be supported by the judiciary. It's a system that is over-burdened right now. ... This is Alberta's opportunity to showcase just how innovative we are, and how we are nimble enough to bring forward big changes to the way of thinking." □



Earthware Reusables

The Eco-friendly Future of Take Out

As a self-described 'serial entrepreneur,' John MacInnes spent more than 20 years at the helm of several successful businesses in Calgary. But as he prepared to move on from his last venture — a software company focused on printing and copying — he wasn't quite sure what would come next.

"I tried retiring," he laughs. "It didn't take because I wasn't very good at it."

It was the upheaval of the pandemic that brought him to abandon retirement and launch Earthware Reusables.

Like many people at the time, MacInnes began ordering more take-out meals from restaurants, both for a sense of normalcy a restaurant-cooked meal offered, and to support the local businesses struggling with pandemic restrictions.

But as every dish arrived — each with its own array of disposable containers, cutlery and plastic packaging — MacInnes found himself wondering about the environmental impact these orders had.

"One of the people that was on one of our video calls told us

about a reusable container service in San Francisco," he says. "It was a great idea, and it just wouldn't get out of my mind."

So much as he'd done in the past, MacInnes set to work, researching ways to make the mountains of plastic and Styrofoam packaging used in the hospitality industry a thing of the past.

According to the company's website, there are 60,000 take-out orders every day in Calgary. And because each order includes multiple items, that means more than 240,000 single-use containers are used — and likely thrown away — in Calgary every single day.

He designed a pilot program to launch that summer, using reusable containers he'd ordered from the United States. Four Calgary restaurants enrolled in the pilot program, which would help MacInnes evaluate how to make the business of reusable containers a sustainable one.

The program tested four different models: one restaurant which replaced all of its containers with Earthware's and sent them out into the world, and three which offered customers the option of using reusable containers with the option to pay extra fees of up to a dollar, to help cover the cost of the containers.

The problem was, the math didn't add up. ►

Those first containers cost the company nearly \$5 a piece. Restaurants were getting them for about \$0.60 a piece. And consumers were getting the reusable containers for prices ranging from \$1 to free.

And unfortunately, the attrition rate for the containers was high.

Put simply, people weren't returning the reusable containers to be reused in the program. They were keeping them.

"You can imagine that was a bit of a problem," says MacInnes.

He continued to research similar programs around the world. He found most other reusable container programs either relied on a membership system, or on consumers paying a deposit up front and having it returned after they returned the container to the restaurant or a processing depot — a system not unlike what was already being done with bottle depots in Alberta.

MacInnes saw another opportunity.

"Eighty-six per cent of beverage containers in Alberta get returned. So, great system that's already existing, the great partnership," he said.

"It was about finding out how to make that work, in a different way."

As the number of restaurants interested in Earthware's reusable container pilot program expanded from four to 50, the company continued to test out different membership options to find the one that would encourage the greatest return rate from customers.

But attrition rates remained high. People just weren't returning the containers.

Fortunately, MacInnes had a plan. He sought out new, less-expensive containers, and researched ways to make the container return process as simple and easy as possible for consumers.



In 2023, he found a solution.

"We wanted a better container and also a better way to pick them up," he said.

In addition to finding more cost-effective containers, Earthware reached an agreement with the Alberta Bottle Depot Association. The agreement meant consumers could now bring their used takeout containers back to the bottle depot when they return beverage containers.

Each container has a 30 cent deposit on it — included in the price when the customer orders their takeout meal. When they return the container to a depot, they get to pocket the change.

It's a win-win-win — for the customer, for Earthware, and for the environment.

Today, about 30 restaurants in Calgary have signed on with Earthware's reusable container program, but MacInnes has plans to expand across Alberta in the near future, supported by financing from SEF.

And he's not stopping there.

"It's not just Alberta," he says. "We've got global ambitions for this." □



Public Place Network

Online Streaming for All

In a sense, Douglas Berquist is the Robin Hood of video streaming platforms. As the CEO and founder of the Calgary-based Public Place Network (PPN), he's working to take profits out of the hands of tech giants, and back in the pockets of creators.

"What if I came to you and I gave you YouTube, wiped it clean of all of its content and said, 'This is now your business. You take this, customize it, change it, make it into whatever works for you, for your business and your business model.' What would that look like? What would you do?" he asks.

Public Place Network offers a space for users to explore the answers to these questions and more. It's a customizable video streaming platform built on the same technology platforms like Netflix, YouTube and Vimeo are. It's what's known as an OTT — or an over-the-top service — which bypasses traditional platforms like cable, broadcast and satellite television to offer viewers direct access to media over the internet.

PPN offers users a place to custom-build their own site to share videos online. Whether users have one video or 20, or if they want to build their own online channel and brand, PPN is the public place for them.

In a sense, Berquist says, Public Place Network is to the Internet what public access television was to broadcast television.

"Anybody can come on at any level," he says. "We've democratized the system."

And much like public access television served a community's need for connection, Berquist sees PPN playing a similar role in the digital public realm. While there are a wealth of other online streaming platforms and video services available, none serve the market in the way PPN does. Some sites offer video hosting and the ability to customize your platform, but there's often a high cost associated with them. Sometimes that cost is so high, it's not economically feasible for community groups.

Thanks to its lower costs for users, PPN allows groups who otherwise might not be able to afford a more traditional online presence the chance to build their own online space.

"We need to take this now new public community space and make it available to artist communities, to the underrepresented, whoever and whatever is out there that needs to get their voice out there," he says.

"We wanted to treat it like a cell phone. You grab yourself a channel, 300 bucks a month, boom. You pay for your data, do your thing, do your business, total social enterprise."

After developing PPN in Calgary, Berquist was ready to expand. Thanks to financing through SEF, he's been able



Public Place Network allows groups who otherwise might not be able to afford a more traditional online presence the chance to build their own online space.

to expand to users across the country — and across international borders, as far away as Spain and Tunisia.

"We're trying to find anyone and everyone that recognizes this kind of service as a way to help them extend their voice and their monetization," he says. "You're already doing all the marketing, you're already pushing audiences to YouTube. Why are you doing that? Push people to your own channel."

PPN's current clients include a wide swath of industries: from tourism and transportation, to arts and entertainment, they've all tapped into PPN as a way to build their online presence, and create longer-lasting revenue streams.

One success story Berquist mentions is the Calgary International Blues Festival. Organizers uploaded performance livestreams, which were then monetized with subscription services or ads. Each livestream could also be broken up into individual artists' performances and sold, and other content could be added throughout the year.

"So now, the organizer has four revenue streams from a single activity, whereas before it was just one," he says.

By giving total control to creators like the Blues Festival, Berquist says, PPN drives economic growth at a grassroots level.

"Suddenly the community economy starts to grow and share in the opportunities that are available in this video streaming technology that's been monopolized by the likes of YouTube."

Calgary's Blues community is just one that has started to tap into the potential of PPN. Berquist knows there's lots more that can be done, since every user is able to adapt the platform to meet their needs.

"I've got people that I didn't even have any idea what they were gonna do. I just know that if you give the controls to the people that are creating the content, you will find out," he says.

"Napster did that, remember, with music? They completely shattered the recording industry by giving every Tom, Dick, Sue, and Wendy the reins. We're doing that with OTT technology." □

Looking for a better way

Every day Social Enterprise Fund (SEF) works with entrepreneurs—non-profits, for-profits, cooperatives — determined to find a better way to do things, to create a sustainable economy leading to a more inclusive community that works for everybody. The stories in this issue of *Portfolio* celebrate just some of the innovative projects we are proud to support.

Innovation can be an interesting word. The Merriam-Webster dictionary defines it as ‘the introduction of something new’, but then goes on to point out that it can simply be ‘anything new that you do.’

Social entrepreneurship challenges *old think*, and accepted norms. It puts business tools and best practices into the hands of the non-profit sector, and says, ‘don’t be afraid to use these tools to make your work in community even better.’ And it challenges for-profit business to examine everything it does from a lens of

social and community responsibility, in addition to responsibility to shareholders. In other words, overturning the accepted rules of engagement, and trying something new.

Something that may not really be so new at all in the bigger picture, just new to you, and how you work.

Recently I accepted an appointment to the federal government’s new Social Innovation Advisory Council. We have been asked to provide strategic advice to government in its goal to advance the use of social innovation and social finance, and to support the growth of those organizations who have (or might) take on the challenge of social entrepreneurship. The work will be interesting and challenging, but I can’t think of a better way to start than stories like these — of SEF clients putting something ‘new’ into action.

— Jane Bisbee

Contributors



Paul Swanson is an Edmonton based photographer specializing in editorial, commercial, and sports photography. When he's not taking photographs for the NHL or other clients in the city, he can probably be found in the river valley walking his dog. Paul has recently started photographing SEF's clients, including Kemet and Growing Greener for this Portfolio.



Lisa Catterall is an Edmonton-based freelance writer and editor. Over the past decade, her writing has appeared in magazines like *Edify*, *WHERE* and *The Tomato*. When she's not feverishly clacking away at a keyboard, she can be found enjoying many of our city's culinary gems. Lisa has been a special member of the SEF team for several years, and has written almost every story ever published in Portfolio.

Partnerships make impact investing possible

Social enterprises, like any small businesses, require access to capital to grow. Given their sometimes unusual structure or business sphere, social enterprises often face challenges finding the financing they need through traditional sources. SEF acts as a patient lender, working with these enterprises to meet their financing needs, whether through a big or small loan. Loans are repayable with interest — and in this way, the funds can go on to assist other social entrepreneurs.

SEF was established in 2008 through a unique collaboration between the Edmonton Community Foundation and the City of Edmonton. Other contributors to the fund have included the United Way, the Alberta Real Estate Foundation and several private contributors. So far, the fund has invested over \$85 million in more than 90 projects. More than \$20 million has been paid back, ready to do more good in the community as new loans.

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