

CANADA'S CLEAN50

PART 1 OF 3: PARTNERING FOR IMPACT



SARAH GOODMAN

The senior adviser, Climate Action and Sustainable Economy, Prime Minister's Office, Government of Canada, helped prepare the ground for the greenest government in Canadian history. Critical milestones include the adoption of a pathway to a carbon price of \$170 a tonne by increasing the price by \$15 a year until 2030.



MOLLIE JOHNSON

Catalyzing Canada's low-carbon energy sector, the assistant deputy minister, Low Carbon Energy, Government of Canada, Natural Resources, is collaboratively driving an inclusive cross-sector energy transformation that extends to a cleaner energy grid, clean fuels and greener homes.



DANA TIZYA-TRAMM

The elected chief of the Vuntut Gwitchin First Nation advocates for environmental and species protection, Indigenous rights and renewable energy. The first Indigenous chief to pass an emergency climate declaration, he also enabled the community to build a solar farm, reducing reliance on fossil fuels and cutting GHG emissions.

PREPARING THE GROUND FOR CLEANTECH AND SUSTAINABLE SOLUTIONS

Two years ago, on Earth Day 2020, 220 members of Canada's Clean50 and 180 companies issued a call for adoption of a comprehensive "build-back-better" plan that included a strong focus on supporting the companies and innovations paving the way for a clean economy. This plan was then endorsed by 35 environmental non-governmental organizations. Today, Gavin Pitchford, Canada's Clean50 Awards executive director and the CEO of Delta Management Group, is happy to report that progress has been made.

"Enormous investments have been and are being made in the clean technology space," he says. "And this is helping to facilitate exponential growth in this market in Canada."

At the beginning of the pandemic, Clean50 leaders from every sector joined Mr. Pitchford in calling attention to the risk of Canada losing ground on cleantech innovation. "Funding support for these companies, which were struggling due to the pandemic, was urgently needed," he explains. "Without timely access to capital, everything would have stopped. And those jobs and that intellectual property were at risk of leaving Canada."

Fortunately, the federal government made it a priority to enable this industry to keep functioning. "As a result, these companies continue to exist," says Mr. Pitchford. "And the payback is going to be huge."

The pandemic served as a watershed moment for cleantech across the globe, with governments in North America, Europe and Asia looking to rebuild their economies with sustainability in mind. Part of this activity is driven by the realization that sustainable technologies drive job growth and economic



Collaborative efforts from the public, private and non-profit sectors can help to accelerate Canada's transition to a clean economy. ISTOCK.COM

“Governments are pouring funding into strategic industries – and this is helping to de-risk some of these critical technologies and initiatives, making them more attractive to investors and customers alike.”

Gavin Pitchford
Canada's Clean50 Awards executive director and CEO of Delta Management Group

opportunity alongside emissions reduction.

"Governments are pouring funding into strategic industries – and this is helping to de-risk some of these critical technologies and initiatives, making them more attractive to investors and customers alike," Mr. Pitchford explains.

The Canadian government's Budget 2022 prioritizes green economy initiatives with \$12.4-billion over the next five years. The government also aims to mobilize private capital with a new \$15-billion investment fund to encourage development and acquisition of clean, decarbonized technologies. The aim is to cut 2005-equivalent greenhouse emissions by 40 per cent by 2030, and achieve net-zero emissions by 2050.

Mr. Pitchford welcomes policies that are designed to pave the way for accelerating cleantech development and adoption, including R&D tax credits, accelerated depreciation, export support and early-stage startup funding. "We need a whole-of-policy approach to make sure

these markets continue to flourish in Canada," he says. "And we need government to keep sending the right signals. Many other governments, particularly China, are making huge bets in this space, and if we fail to keep up, we miss out on this opportunity."

While government grants and individual investors can help startups get off the ground, these companies also need access to private capital to commercialize their products or services. "Venture capital investors are now competing for the most promising Canadian cleantech enterprises," notes Mr. Pitchford. "We continue to see increasing job growth in the cleantech and sustainability space."

Numbers reported by the TMX Group Ltd., which operates the Toronto Stock Exchange and the TSX Venture Exchange, show that the cleantech sector secured \$3.09-billion in equity financings during the first six months of 2021, a 335 per cent increase over the same period in 2020.

A similar trend is evident in the global market. PwC data show over \$60-billion (U.S.) flowing into cleantech startups in the first half of 2021, more than double the amount of \$28.4-billion (U.S.), which was invested in all of 2020.

"Canadian investment is less than 5 per cent of the world-wide number. That's not enough. To maximize our share of the global market for cleantech going forward, we need

to scale faster and have greater ambition," says Mr. Pitchford, who advocates for strategies that bring together the public sector, businesses, researchers and incubator facilities, investors and regulators. He says he built the Clean50 program for that very purpose.

"Through cross-sectoral collaboration, we can help to create a fertile ecosystem for accelerating the adoption of cleantech and sustainable solutions. We have seen many successful examples evolve from the Clean50 community," he says. "I'm particularly excited about the impact I expect to see from several of the companies whose leaders we have recognized in the past two years: Aceleware, Ecoation, Hydra Energy, Loop Energy, Polystyvert, Summit Nanotech, to name just a few."

All levels of support are critically needed, Mr. Pitchford emphasizes. After all, cleantech companies aim to tackle some of the toughest and most complex challenges of our time, and many need more access to advanced R&D infrastructure, tools and talent.

"We see a lot of organizations and individuals with a huge potential to create a sustainable economy and value for Canada," he says. "But to be on par internationally, they require capital and support systems that can help them commercialize and scale their ideas and demonstrate the break-through technologies we are going to need to fight climate change."



Eric St-Pierre, executive director of the Trottier Family Foundation. SUPPLIED

CITIES DRIVING CLIMATE ACTION

Across the globe, climate change has already affected the day-to-day lives of urbanites; for example, with flooding, heat waves, or food and resource scarcity. Beyond implementing adaptation and mitigation measures to improve the built environment's resilience, advocates see cities as important drivers of climate action.

"Cities can be part of the climate solution, especially when they implement fairly bold climate policy," suggests Eric St-Pierre, executive director of the Trottier Family Foundation, a private philanthropic foundation looking to create "meaningful impact by promoting science, education, health and the environment."

There is a growing movement for increasing sustainability in urban settings, which is led by a group of 97 cities and mayors, called C40, with a strong commitment to confronting the climate crisis.

In Canada, "cities can play a key role in helping to meet emission targets, yet we need all levels of government to be involved as well as all institutional actors, from pension funds and insurance to investors," says Mr. St-Pierre, who believes this work needs to be supported by "climate advocates and climate philanthropy."

"Only about 1 to 2 per cent of philanthropic dollars in Canada go towards addressing climate change, and of that, very little funding is allocated to working with cities that need assistance."

The Trottier Family Foundation aims to address this gap. And since outcomes can be enhanced by leadership, collaboration and

networks, the organization has forged relationships with strategic partners, such as the Federation of Canadian Municipalities and C40 cities.

As some of the largest sources of greenhouse gas emissions in Canada, reducing the carbon footprint of cities requires careful planning, says Mr. St-Pierre, who has earned a Clean50 award for his role in helping bring the Low Carbon Cities Canada (LC3) initiative to life.

Partnering with the City of Montreal and Mayor Valérie Plante, the Trottier Family Foundation also helped to develop Montreal's carbon-neutral climate action plan and to mobilize civil society through the Montreal Climate Partnership.

The city has made great strides towards the goal of reducing emissions by 55 per cent by 2030, says Mr. St-Pierre. "A recent \$117-million funding commitment by the Quebec government in support of Montreal's climate plan will help to create an additional 800 EV charging stations, decarbonize municipal buildings through energy efficiency, plant 94,000 trees, and more."

Strong outcomes can serve to inspire other municipalities across the country, believes Mr. St-Pierre, and the Trottier Family Foundation is currently exploring new partnership opportunities.

"We are noticing a difference in on-the-ground action. We see efforts to decarbonize buildings; we see new local programs and regulations; we see more electric cars," he says. "But there's a lot more work to be done in Canada to accelerate climate and city philanthropy."



READ PART 2 ON APRIL 21: A just and sustainable future

READ PART 3 ON APRIL 22: Celebrating climate action on Earth Day



MONTANA BURGESS

Leading the West Kootenay EcoSociety, she pioneered engagement that uses deep canvassing (talking to 900+ people at their doors and on their phones). As a result, the team convinced 11 local governments in heavy-industry rural communities to commit to 100 per cent clean energy by 2050.



ERIC ST-PIERRE

The executive director of the Trottier Family Foundation is helping to tackle one of the largest sources of GHG emissions: cities. Since solutions require careful planning and incremental changes, the foundation is injecting philanthropic dollars to help mobilize civil society for climate action.



SOLENNE BROUARD GAILLET

As leader of Polystyvert, she helped advance the circular economy by diverting polystyrene from landfills. Polystyvert's portfolio of patents enable recycling polystyrene – by dissolution and subsequent purification – to produce virgin-like polystyrene while reducing GHG emissions by 80 per cent.

MORE GOVERNMENT LEADERS AND CHANGE-MAKERS AT CLEAN50.COM

UNLOCKING THE POWERFUL POTENTIAL OF TREES

Now is the time for trees. More and more Canadians have become aware of their powerful potential, whether that's by reading about Suzanne Simard's research on the connections between trees or through enjoying access to nature during the pandemic.

"Walking among the trees was one of the few things people could continue to do when everything else was shut down," says Danielle St-Aubin, CEO of Tree Canada, a national non-profit organization dedicated to planting and nurturing trees in rural and urban environments. "People are paying more attention to the benefits of trees – and this is really translating into action."

Tree Canada is catalyzing this momentum by stepping up efforts to green communities in partnership with government, corporations and individual donors. In 2019, the organization planted 350,000 trees. In the 2021 planting season, this number grew to over 917,000. For the coming year, the goal is set at over a million.

While it is common knowledge that "trees are fantastic at capturing and storing carbon, there is now more effort underway to show the value of trees in urban centres and communities," says Ms. St-Aubin. "Previously, trees were often seen as a burden [on municipal coffers] due to the costs of planting and

maintaining them. But we are learning more and more about their economic benefits."

Trees reduce the heat island effect in cities by cooling surface and air temperatures. In addition, they improve air quality, reduce noise pollution, shelter wildlife, help to capture stormwater, boost property values and create tourism opportunities, she explains. "People may visit Montreal to walk through Mount Royal, a large urban park.

"I hope this shift in how people perceive urban trees is going to continue, because we are still losing canopy cover at an alarming rate." Fortunately, many like-minded partners are teaming up with Tree Canada, says Ms. St-Aubin. "Organizations are increasingly looking to be active participants in environmental stewardship. Sponsorships and donations have enabled us to grow exponentially over the past few years. Together with our partners and sponsors, we now have planted more than 84 million trees over our 30-year history."

An example of a decade-long partnership is Tree Canada's collaboration with CN, which has led to planting and maintaining a total of 2,081,505 trees across the country (by the end of 2020). These initiatives have helped green communities in need, re-establish urban and rural forests, and increase



Tree Canada partnerships help to green communities. SUPPLIED

the number of schoolyard trees. Ms. St-Aubin sees Tree Canada's schoolyard greening program as "one of our most important endeavours, since it inspires children to appreciate trees."

"When I was a kid, there was a huge maple tree growing in our neighbourhood, and it served as a mini-playground for all of us. We would climb it, play hide-and-seek or just shelter in the shade," she says. "As an adult, I realize that this tree was a creator of experiences – and I hope our over 700 schoolyard greening projects will have similar long-term impacts."

Tree Canada is also partnering with the federal government to help

advance the Growing Canada's Forests program, which envisions planting two billion trees by 2030. It is estimated that these efforts could help to sequester between 1.8 and 4 megatonnes of carbon dioxide emissions each year starting around 2030 – and achieve a reduction of 12 megatonnes of carbon dioxide emissions by 2050, according to think-tank Smart Prosperity.

"That's the kind of partnership we like to see, where everyone can get engaged, including corporations, communities and government," adds Ms. St-Aubin. "It's thrilling to be involved."

Visit www.freescanada.ca

GROWTH POTENTIAL WITH BUZZ

At \$100-million, the TELUS Pollinator Fund is one of the world's largest corporate impact funds.

As part of TELUS's ongoing commitment to social capitalism, the organization invests in for-profit startups, companies and founders committed to driving innovation and transformative solutions that make the world a better place.

The result is a portfolio of companies that are using tech for good to create solutions focused on sustainability, responsible agriculture, transformative health care and enabling inclusive communities. Each one uniquely addresses a critical challenge of our time – from enabling a healthier supply chain through digitized beekeeping and efficiently removing toxins from billions of litres of water to matching patients to personalized home care while increasing home-care workers' wages, providing students with STEM education through gamification, and many more.

By catalyzing the transformational potential of its corporate impact fund, TELUS engages the strength of its network to support the growth of portfolio companies.

Learn more at telus.com/PollinatorFund.



Vancity Community Investment Bank

Financing Canada's transition to a net-zero future

At VCIB, we provide clean energy developers, installers, and building owners with the financing solutions needed to get clean energy and energy efficiency projects off the ground, built, and scaled.

In 2021, VCIB provided the Six Nations of the Grand River Development Corporation (SNGRDC) with \$32.5 Million in refinancing for their stake in the Niagara Region Wind Farm, the second-largest wind farm in Ontario. The significant savings from a lower interest rate freed up funds to directly benefit the Six Nations community.

From wind and solar, to wastewater, geoexchange, EVs, and energy storage, VCIB is financing Canada's transition to a net-zero future.

You power change. We empower your projects. Let's connect.

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