



B.C.'s Copperleaf excels in record-smashing year for Canadian tech with strategy tips from CEO's granny

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Copperleaf Technologies Inc. [CPLF-T](#) +1.35% increase CEO Judi Hess recently joked her company's strategy was inspired by the way her grandmother played Monopoly: by going after utilities and railroads. It worked for granny and so far it's done the same for Copperleaf. "It's this slow game. You just take them and you win," Ms. Hess told an investor conference this month.

The Vancouver company, which sells decision analytics software used by, yes, utilities, and transportation companies to plot their capital spending, was one of the big winners during a historic year for Canada's technology sector.

Records fell at every turn: Canadian tech companies have raised \$13.8-billion in equity according to preliminary data from Refinitiv – nearly 40 per cent more than the previous, inflation-adjusted high in the dot-com bubble year of 2000. Global investors such as Tiger Global and Al Gore's Generation Investment Management flooded into the market. Canadian tech companies completed 38 venture capital financings of \$100-million or more. The previous record was 12.

Unicorns – private companies that achieve US\$1-billion valuations – proliferated like raccoons. Flush Canadian tech companies went on spending sprees, accounting for 21.4 per cent of foreign acquisitions by domestic buyers, the sector's highest share since 2000, Refinitiv data show.

Public markets have become fertile ground for Canadian tech companies during the COVID-19 pandemic. In the past 18 months, there were 20 tech IPOs on the Toronto Stock Exchange that raised \$50-million or more – slightly more than one a month. By contrast, from 2009 through 2019 it was one a year on average.

According to Scotiabank quantitative analyst Jean-Michel Gauthier, the \$9.2-billion raised by 40 IPOs in all sectors by mid-December made 2021 the highest grossing year for new issues since at least 1997. Tech stocks now account for 11.8 per cent of the S&P/TSX Composite Index – up from 1 per cent in 2012.

Yet 2021 ends on a down note. Shares of high-flying Canadian tech companies Nuvei Corp. and Lightspeed Commerce Inc. tumbled after attacks from short sellers. This year's crop of tech IPOs also underwhelmed: Of the 16 that made their debuts on the TSX in 2021, half now trade below their issue prices.

Against that backdrop, Copperleaf stands out. It had one of the year's most successful TSX tech IPOs, raising \$161-million in October after receiving \$1.25-billion-plus of demand, including a lead order by renowned tech investor Chamath Palihapitiya's Social Capital. Copperleaf stock shot up on its first day from its \$15-a-share issue price and closed Thursday at \$23.50, giving the company a \$1.6-billion market capitalization. That makes it the second-best performing new TSX tech issue of 2021 after Magnet Forensics Inc MAGT-T -3.96% decrease B.C.'s billion-dollar tech club welcomes new member as Copperleaf soars in TSX debut Sharethrough postpones IPO after string of lacklustre TSX debuts by Canadian tech issuers

Meanwhile, Copperleaf was the only woman-led tech company to go public on the TSX in 2021. "I think women can do anything," Ms. Hess said in an interview. "I hope that by doing this, there's an example out there so that other women will do it and other investors will believe that they can take those chances to invest in a great woman leader." The company is also stacked with veterans of two earlier B.C. tech stars, MDA Ltd. and Creo Inc. Ms. Hess worked for both. Nine of Copperleaf's 14 top executives came from Creo.

Copperleaf's IPO succeeded "because they took the approach of, 'We're about building a great business on good old-fashioned fundamentals,'" said Pender Ventures managing partner Maria Pacella, an early investor. "It's never been a growth-at-all-cost model. The fact they've been around a long time, and have good growth resonates more now than some other stories."

Copperleaf didn't go public on a wave of hype that benefited some startups as the pandemic hastened a shift to digital, nor had it banked giant private financings to fuel high growth and big losses (it raised less than \$15-million across two financings, in 2010 and 2019). Copperleaf was little-known and historically spent within its means; it was profitable six of its previous eight years, a rarity among new tech issuers.

And investors liked what they saw: Copperleaf, with \$58-million in revenue in the 12 months ended June 30, has never lost a client. It has a "net promoter score," a measure of customers' likelihood to recommend it, of 70 – high for an enterprise software company.

On average, Copperleaf's existing clients spend 25 per cent more with the company from year to year. It's also a veteran in the burgeoning market for selling tools corporations use to reach environmental, social and governance (ESG) goals. "We were ESG before ESG was cool," Ms. Hess says. To boot, it also has just one class of stock, meaning the CEO and early investors don't hold super-voting control, unlike other new public tech companies.

“Copperleaf is a fantastic example of a great company that checks all the boxes” with differentiated technology, strong, proven management and solid financial results, said David Wismer, co-head of global technology and business services investment banking with BMO Capital Markets, one of the IPO’s lead underwriters.

Now, the big question is whether Copperleaf can maintain its momentum with a new strategy: to burn through its IPO cash in the service of speeding up revenue growth. “I imagine in the next couple of years we will continue to not be profitable,” Ms. Hess said. “That’s our goal actually, to invest in the business to make sure we create this platform and that we conquer this market and ensure we continue to be that market leader.”

Judi Hess was starting to wonder if she’d made a huge mistake by joining Copperleaf. It was fall 2009, two months after she had started as CEO at the 30-person company. Copperleaf needed capital – which Ms. Hess had never raised and was hard to come by on the heels of a recession – and had to build a team. But she had a bigger problem.

The product Copperleaf had been developing for its first software customer, U.S. electric utility giant Duke Energy

DUK-N +0.40% increase, wasn’t ready, she discovered. Duke had agreed in 2008 to pay US\$3-million for a program that would help it determine how to allocate capital spending to ensure its portfolio of nuclear power stations stayed operational and financially viable.

The software was almost done, Ms. Hess had been told. But then it failed more than half the tests Copperleaf ran on the system. She discovered it would take most of a year to fix.

Now, she had to fly to Charlotte, N.C., and tell Duke’s top brass her tiny company needed more time and hope the giant wouldn’t walk. “That was quite an impossible mission,” recalled Amos Michelson, Copperleaf’s chairman, in an interview. But Mr. Michelson was confident in his new hand-picked CEO. “I knew exactly the qualities of Judi,” he said.

Fourteen years earlier, when he was CEO of Creo, a maker of digital technology for commercial printers, he had pursued Ms. Hess to lead up its fledgling software division. She was a program manager with space company MDA, delivering mission control systems and had a reputation for fixing software projects that ran over schedule – a reputation not just owing to her technical prowess, but her ability to get teams to work together. Delivering software, she says, “is in my blood It’s a team sport, a human endeavour.”

Mr. Michelson asked around: who was the best software leader in town? His human-resources head, formerly from MDA, told Mr. Michelson it was Ms. Hess – but said it would be impossible to get her. She had joined MDA as a co-op student while studying math at University of Waterloo, and stayed for 14 years after graduating.

Mr. Michelson was undaunted, and when they met, Ms. Hess was intrigued by the opportunity to build products in a new industry. As an extrovert and a woman, she wasn't so sure about becoming a lifer at MDA, where she felt she had risen as high as she would in "a male introverted culture," she says. (She had balked at her first offer from MDA because the pay was lower than a male colleague was set to receive, accepting only when the company matched the salary.)

Ms. Hess joined Creo in 1995 and thrived in its collaborative, politics-free culture, becoming president in 2002. When Creo sold to Eastman Kodak Co.

KODK-N -0.22% decrease for US\$1-billion in 2005, she stayed on to head the business, as Mr. Michelson left to focus on backing startups.

One of those was Copperleaf, which had started as a consultant to utilities before developing software for them and landing the Duke contract. It was a coup for a small company, indicating "the need was there" for sophisticated software to help complex, asset-heavy companies plan how to prioritize and spend their vast capital budgets, Mr. Michelson said. (He invested \$2.2-million for a 12.3-per-cent stake in Copperleaf that is now worth nearly \$200-million).

This time, the circumstances were easier for recruiting Ms. Hess. Kodak was in the throes of trying to redefine itself in the digital age (it filed for bankruptcy protection in 2012). Creo employees were skeptical of their new overlord; when Kodak CEO Antonio Perez showed up at a Creo office in a black limousine, an employee whistled the Death Star theme song from *The Empire Strikes Back*, eliciting laughter, ex-Creo employee Geoff D'Auria wrote in The Tyee in 2012. "It was very fancy at Kodak, they had their own jets," Ms. Hess recalled.

Kodak's heavy hand came down with bureaucratic policies such as the need to requisition office supplies and seek approval from the CEO himself to travel. Kodak began outsourcing divisions to Mexico and China.

Ms. Hess, who had moved to Vancouver for the skiing and sailing, says she was "told many times if I wanted a career at Kodak ... I had to move to Rochester, N.Y.," where Kodak was based, something she couldn't fathom. And she found it "impossible" to make any impact on Kodak culture. Before long, she knew she would leave. "It was just a matter of when."

At Copperleaf she ran into several colleagues: Her former No. 2 at Creo, Stan Coleman, had joined a month before as chief technology officer. Darryl Spencer, son of Creo co-founder Kenneth Spencer, had left Kodak for a senior operations role at Copperleaf in 2007. With so many familiar faces, "I was, like, 'It's hard to go wrong,'" she said.

But the team hadn't anticipated Copperleaf's fledgling software would run into such serious trouble as it ingested data from Duke's nuclear division on all of its physical assets. Ms. Hess and Mr. Coleman dug in, figured it would take 10 months to fix, and flew to meet Duke to plead for time and patience. They returned without knowing their

fate. Duke sent a team to Vancouver to investigate. Finally, Ms. Hess got word: Duke agreed to an extension. Within a year, the software was working.

Things fell into place, with unexpected help from Kodak, which shifted software development to Israel soon after Ms. Hess left, throwing Creo-ites out of work. “I was really sorry to see what Kodak was doing to the company,” she said. “But it was fantastic to have a landing place for all these amazing people we’d worked with.” Within two years, Creo alumni accounted for about half of all Copperleaf employees.

Copperleaf parted ways with founder Lynn Casey and raised \$7.3-million in venture capital in 2010 from Working Opportunity Fund (WOF), Export Development Canada and angel investors. The funding “was a tough call to make” early in the recovery, said Ms. Pacella, who oversaw WOF. But the Duke contract convinced her Copperleaf was solving a pervasive issue, and had “a leader that could galvanize a team to solve that problem.” Without that capital, Ms. Hess says “we would not be sitting here today.”

The next challenge was getting word out to slow-moving and risk-averse electric utilities that could take years to make purchase decisions. Because utilities don’t compete, it was easy for Copperleaf’s potential customers to share their experiences with one another. Copperleaf began signing up customers that included Manitoba Hydro, Ontario’s Hydro One

H-T -0.18% decrease, Hydro-Québec and Iceland’s Landsvirkjun. Copperleaf had 62 clients as of last June 30.

Should I say CU later to Canadian Utilities?

Once clients implemented Copperleaf’s artificial-intelligence-driven software, they found it paid for itself within one budget planning cycle as it helped assess different capital spending projects, plotting and prioritizing them based on how they could mitigate risks, improve financial performance and transform operations to reduce the carbon footprint. The company says its software reduces risks and planning times, and can save clients millions of dollars a year.

Everyone renewed and clients “frequently become evangelizers” for the product, Copperleaf said in its prospectus. Other than spreadsheets, bespoke programs built for individual utilities and niche software with limited functionality, Copperleaf has no major competitors. “When we talk to customers and consultants, basically the response was, ‘If you’re looking at software like this, Copperleaf is essentially what you will buy,’” said BMO analyst Thanos Moschopoulos.

British utility National Grid’s gas-transmission division became a client in 2018 after finding Copperleaf’s products “were unique in providing us end-to-end functionality for our asset management processes, providing us with a way to prioritize our investments in a way that our regulator understood,” said Jacob Isherwood, head of data for the unit. Copperleaf is now “a key platform across our systems ... and supports us in making the

right investments in our assets at the right time providing us with evidence for investment to our regulator.” A year later, National Grid invested in Copperleaf.

Revenue growth has been gradual, increasing 10 per cent in 2019 and 21 per cent in 2020. But the company was also profitable until 2018, when it began pouring more resources into expanding the business and enhanced sales efforts to water utilities and the transportation sector. That resulted in a 54-per-cent increase in recurring revenues in the 12 months ended June 30, a pace Mr. Moschopoulos forecasts will accelerate as Copperleaf expands sales with existing clients and moves into new territories and sectors, such as chemicals. “They have a lot of runway,” he said.

Now, with IPO proceeds in hand, “you can start making decisions that are based only on return on investment, even if that decision will cause quite a bit of burning of cash,” Mr. Michelson said. “The strategy of staying cash-flow positive will change. Now the issue is to grow as fast as we can, put the money into developing new markets and focusing on different segments of infrastructure. The big inflection point will be when we start to sell the Copperleaf value to Fortune 500 companies, even to those that don’t have large infrastructure. At that point, the growth will be tremendous because every company needs it.”

<https://www.theglobeandmail.com/business/article-bcs-copperleaf-excels-in-record-smashing-year-for-canadian-tech-with/>

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