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# The rise of 'weed tech': Cannabis tech sector flourishes in lead up to legalization

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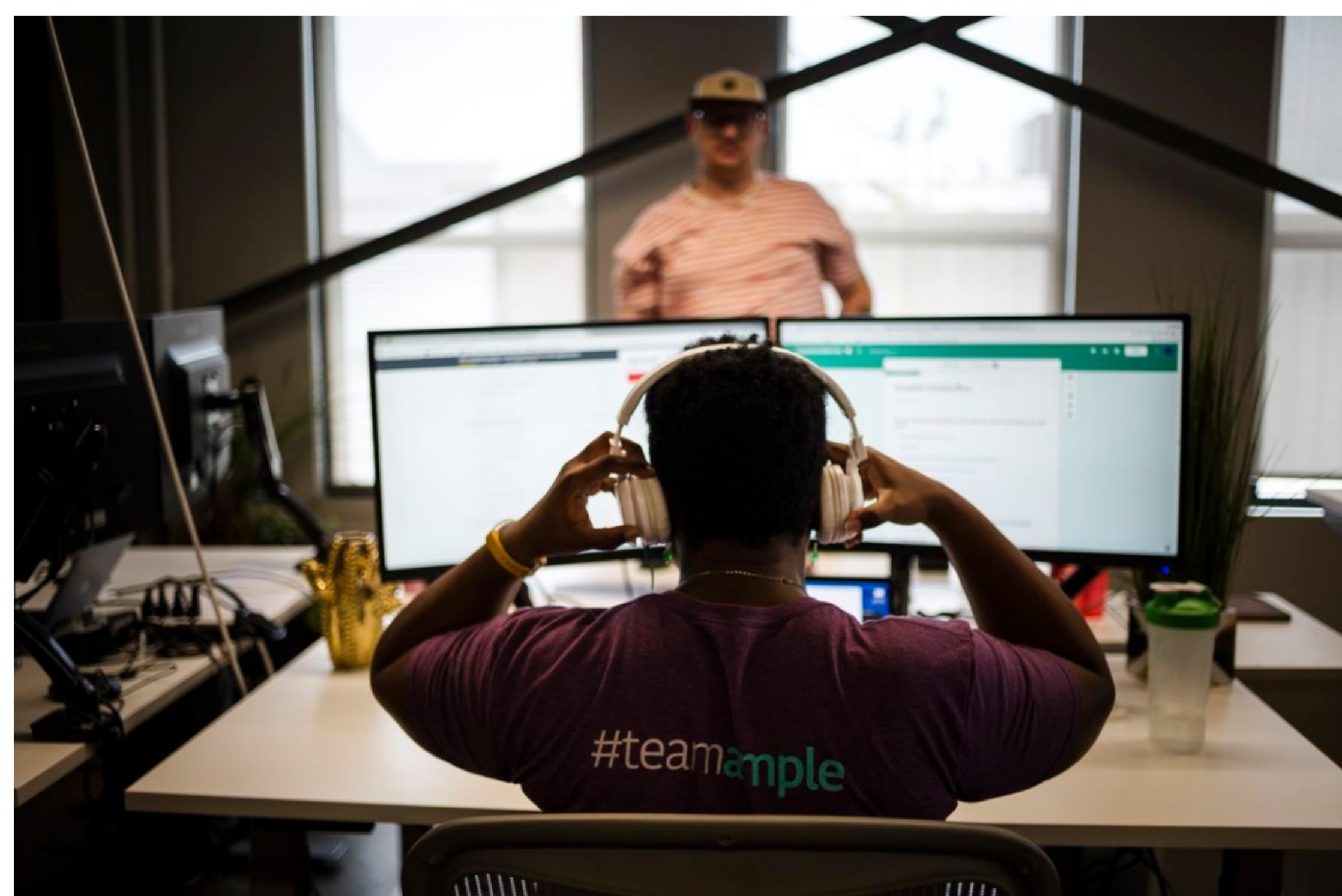
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A growing number of Canadian tech entrepreneurs are betting big on the future of cannabis in the lead up to legalization later this year. These "weed tech," or "canna tech," companies, as they are sometimes called, are hoping to cash in on the new legal market by creating specialized software and hardware to serve the cannabis industry and consumers.

Investor interest, so far, has focused mostly on companies cultivating cannabis. But the ancillary market, which includes industry-specific technology as well as other offshoots, such as consumption devices and security, is predicted to be sizable. A Deloitte study predicts Canada's upcoming legal recreational market could be worth as much as \$8.7-billion a year, and with ancillary operations thrown in, the number jumps to \$22.6-billion.

"We're like the plumbing of the cannabis industry," said John Prentice, founder and chief executive of Ample Organics Inc., a seed-to-sale software company that helps producers with compliance requirements and inventory tracking. "If you're going into a licensed facility and [are] trying to figure out how many plants are in a grow room, what they're being manufactured into and who's buying the product, our software is the system that tracks that."



Software developers at Ample Organics are photographed in their office in Toronto, on July 16, 2018.  
CHRISTOPHER KATSAROV/THE GLOBE AND MAIL

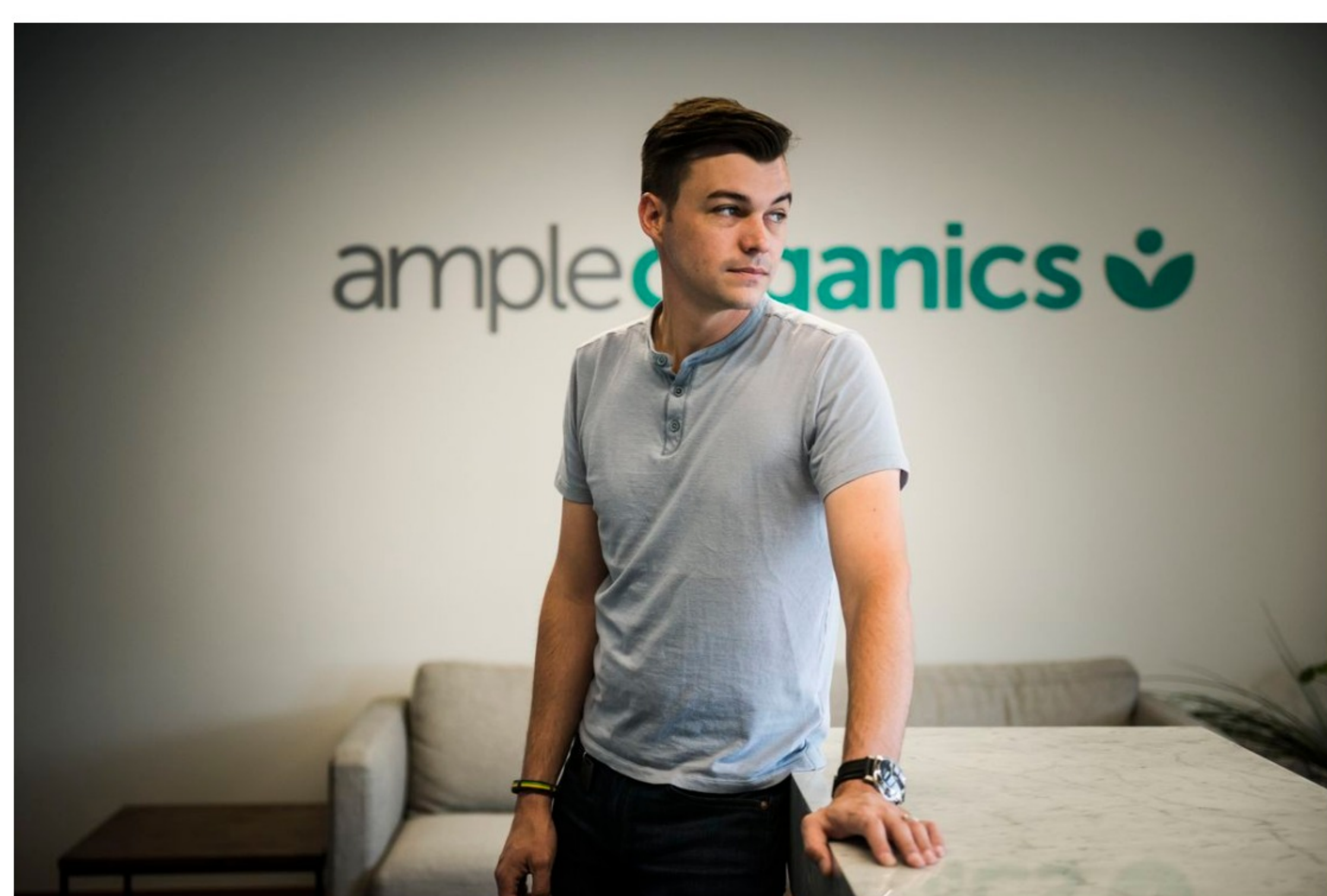
For investors, the appeal of weed tech is simple: They can try to reap the rewards of the market without taking on all the legal and financial risks that can come with direct involvement in the production and sale of cannabis products, which are still illegal federally in the United States. Plus, some investors may feel more comfortable investing in ancillary businesses, given the lingering stigma that can still be associated with cannabis.

The increased interest is benefiting companies such as Toronto's Ample Organics. Founded in 2014, the software firm closed a Series A round of financing in early July, raising \$7-million from investors including Green Acre Capital and Osmington Inc. (which is controlled by David Thomson, whose family holding company owns The Globe and Mail).

While there were only 12 licensed producers operating in Canada at Ample Organics' inception, that number has ballooned to 114. The company works with about three-quarters of them, Mr. Prentice said. He plans to grow his team from 90 employees to 150 over the next year.

"We're really focusing on Canadian companies expanding internationally," he said. "So working with them, continuing our partnership or [partnering] with new companies that are trying to get licences in new jurisdictions, like Colombia, South Africa or Europe."

The company is also launching a new platform, Ample Exchange. The platform will act as a wholesale marketplace for Canada's licensed producers to interact with one another and buy and sell products.



John Prentice, CEO of Ample Organics, poses for a photograph in their office in Toronto, on July 16, 2018.  
CHRISTOPHER KATSAROV/THE GLOBE AND MAIL

It's not just seed-to-sale software companies such as Ample that are poised to grow. As competition increases, crop metrics will be increasingly important to give producers an edge.

Toronto-based Braingrid Corp. is a technology company specializing in a cannabis sensor platform. Its sensors let growers monitor their crops' microenvironments, helping them control variables such as humidity, pH (acidity) or carbon dioxide levels.

"In the next couple of years, there's going to be downward pressure on wholesale cannabis prices," said Matt Skynner, Braingrid's president. "What will happen then is the producer who has the lowest cost, highest yield will win."

Braingrid switched its focus from the energy sector to cannabis in 2016, and has raised \$3.7-million to date. The business recently launched a partnership with Ample Organics and Rent2Grow, which offers shared cannabis growing spaces for consumers. Braingrid expects to expand internationally over the next year.

With established Canadian cannabis tech firms growing and legalization around the corner, more startups are also beginning to enter the space. Leaf Forward, a Toronto-based cannabis business accelerator, started out as a monthly meet-up for entrepreneurs in the sector about a year and half ago. Now the organization hosts meet-up events in five cities across Canada and offers Toronto-based boot camps and mentorship opportunities. Around 30 startups, most focused on ancillary markets and less than a year old, joined Leaf Forward's July boot camp. About a quarter are tech businesses.



Workers of Ample Organics are photographed in their office in Toronto, on July 16, 2018.  
CHRISTOPHER KATSAROV/GLOBE AND MAIL

"There's a lot of growth ahead. We're just scratching the surface," said Alex Blumenstein, one of Leaf Forward's co-founders. "We're still very much in the industry's infancy, especially on the ancillary side."

Industry experts, however, see challenges ahead. As with any startup business in a new, growing market, inherent risks exist. An increasing number of competitors and shifting regulations make it difficult to predict who the winners and losers will be. Typically, there's a flood of startups when a sector gets rolling, followed by the consolidation of a few of the strongest players and a couple of small high-end brands. In addition, the ancillary space is especially vulnerable to international players.

"It's difficult for Americans to play in the growing space. They can't grow cannabis and send it to Canada, but they can create an extraction technology and send that to Canada," said Brad Poulos, an instructor at Ryerson University's Ted Rogers School of Management.

But Canada has big players of its own, Mr. Poulos said, pointing to Ample Organics and Molecular Science Corp., a Toronto-based lab that can test for pesticides, heavy metals and potency in cannabis products.

"It's a risky business," Mr. Poulos said. "But tech and Canada go well together, and we do have an opportunity to develop world-leading technology. It will be exciting to see what happens."

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