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They are authors of the Rise of the Global Startup City released earlier this month.

The Cities Project at the Martin Prosperity Institute focuses on the role of cities as the key economic and social organizing unit of global capitalism. It explores both the opportunities and challenges facing cities as they take on this heightened new role.

The Martin Prosperity Institute, housed at the University of Toronto's Rotman School of Management, explores the requisite underpinnings of a democratic capitalist economy that generate prosperity that is both robustly growing and broadly experienced.

Startup North

Canada's Startup Ecosystems Are Growing, But Still Lag the Global Leaders

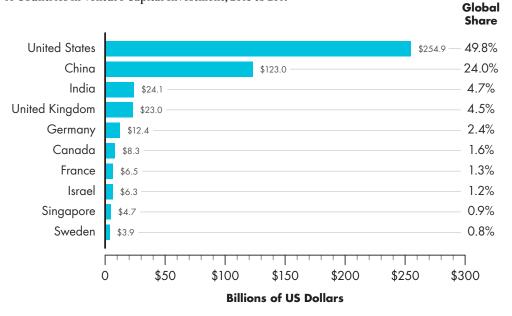
> Richard Florida Ian Hathaway

Canada, it is increasingly argued, has emerged as a leader for high-tech innovation and entrepreneurship. Global titans like Google and Microsoft have established outposts in Canada to harness the country's leading artificial intelligence talent. As the United States has moved to restrict immigration, Canada is seen by many as a preferred destination for global talent. Toronto placed fourth in one ranking of tech talent this past summer, behind only the San Francisco Bay Area, Seattle and Washington DC, adding more tech jobs in 2017 than those three metros combined. Report after report have dubbed Canada and its leading centers, particularly Toronto, Waterloo, and Vancouver as among the world's most up-and-coming tech hubs.

But is this really true?

Our <u>detailed analysis</u> of more than 100,000 venture capital investments in startup companies across 300 plus global cities between the years 2005 and 2017 suggests a more nuanced picture. (We pooled the data into three-year periods to reduce annual fluctuation or "noise" which is especially prevalent at the city and metro levels). On the one hand, Canada and its leading startup hubs—Toronto, Vancouver and Montreal—have seen a rise in high-tech startups backed by venture capital over the past decade. But, on the other hand, that growth—both for the nation as a whole and for its leading startup hubs—has been more subdued than it has been for other countries and cities.

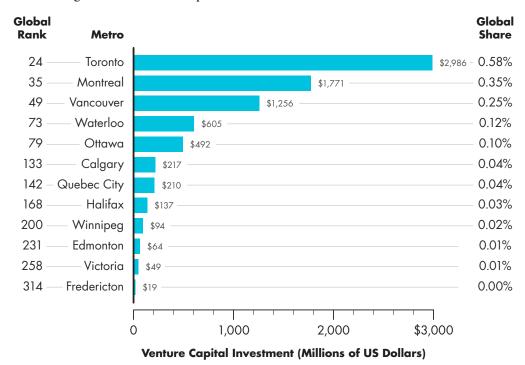
Top 10 Countries in Venture Capital Investment, 2015 to 2017



Canada ranks fifth among nations in the number of venture capital deals trailing only the United States, United Kingdom, India, and China. And it ranks sixth for global venture capital investment, taking in \$8.2 billion over

the years 2015 to 2017, trailing these four counties and Germany. Still, Canada accounts for just a small fraction of all venture activity overall, capturing just 2.8 percent of global venture deals and 1.6 percent of venture invest-

Canada's Leading Metros for Venture Capital Investment



ments. And those shares have actually fallen over the past decade and a half.

Canada ranks even lower on a per capita basis (a measure that controls for the size of a nation's population), ranking 12th in both venture deals and venture capital investment per capita. On this score, it falls well behind smaller nations like Luxembourg which ranks first, Singapore at second, Israel which ranks fourth, Iceland fifth, and Ireland at sixth. It is also far behind its much larger neighbor to the South, the United States, which ranks third.

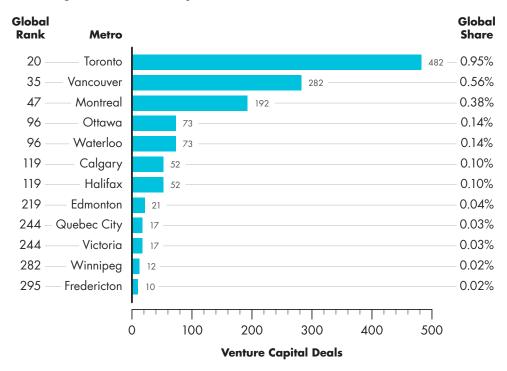
Twelve Canadian cities make our list of the world's 300-plus global startup cities. Of these, three cities—Toronto, Montreal, and Vancouver—number among the world's 62 Established Startup Hubs, which we deem to be the dominant global players. As evidence, these 62 Established Hubs account for three quarters of global venture deals and 90 percent of global venture capital invested. One Canadian city—Waterloo—made our list of 30 Emerging Glob-

al Startup Hubs, based largely on its high level of venture capital investment per-capita.

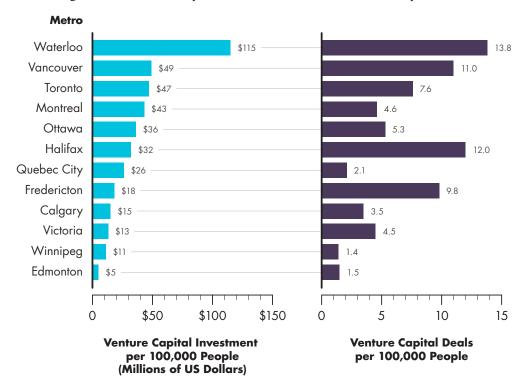
Toronto is the unquestioned leader in Canada's startup economy, ranking in the third tier of Established Global Startup Hubs as an Advanced Hub alongside global cities like Amsterdam, Dublin, Hong Kong, Miami, Barcelona, and Sydney. The first tier of Superstar Hubs includes the San Francisco Bay Area, New York, Boston, Los Angeles, London, and Beijing, while the second tier of Elite Hubs is comprised of 13 cities such as Austin, Chicago, Shanghai, and Paris.

Toronto ranks 20th in global venture capital deals with 482 in the three-year period 2015—2017, accounting for roughly one percent of the global total—an amount that is similar to Denver, Shanghai, Stockholm, Singapore. The city ranks 24th on venture capital investment with nearly \$3 billion from 2015—2017, which is less than one percent of the global total and similar to Tokyo, Atlanta, and Philadelphia.

Canada's Leading Metros for Venture Capital Deals



Canada's Leading Metros for Venture Capital Investment and Deals Per 100,000 People



Both Vancouver and Montreal are ranked as fourth tier Distinguished Global Startup Hubs, alongside cities like Boulder, Pittsburgh, Copenhagen, Sao Paulo, Guangzhou, Kuala Lumpur, and Melbourne. Vancouver ranks 35th globally in venture capital deals with 282 between 2015 and 2017, roughly 0.6 percent of the global total, and on par with Boulder, Barcelona, Sydney, Moscow and Minneapolis. Vancouver ranks 49th in venture capital investment with almost \$1.3 billion from 2015—2017, or roughly 0.2 percent of the global total, about the same as Dublin, Cambridge, Baltimore, and Salt Lake City.

Montreal ranks 47th in venture capital deals with 192 between 2015-2017, for 0.4 percent of the global total, or about the same as Nashville, Amsterdam, Cambridge (UK), and Salt Lake City. The city ranks 34th in venture capital investment with nearly \$1.8 billion during those

same three years, or about the same as Oxford, Dallas, Minneapolis, Sao Paolo, and Dubai.

Waterloo leads all Canadian startup hubs in venture capital investment per capita, ranking 26th globally on that measure. It and Ottawa rank among the leading one hundred Global Startup Hubs. Calgary ranks among the top 150 tech hubs. And Edmonton, Winnipeg, Quebec City, Victoria and Fredericton register on the list of the worlds' 350 or so leading startup hubs.

When it comes to high-tech venture capital, the news for Canada is mixed. The good news is that both the nation as a whole, and its leading startup hubs, have seen substantial increases in their absolute levels of startup activity and venture capital investment. The not-as-good news is that even as they have done so, they have actually lost ground to leading nations and leading startup hubs around the world.

Indeed, Canada has failed to gain ground at a time when the United States' global position in venture capital investment and startup activity has slipped significantly. While the U.S. continues to generate the largest amount of start-up and venture capital activity, its share of the global total has fallen significantly, from more than 95 percent in the mid-1990s to about two-thirds in 2012, to a little more than half today. The country which has gained the most ground is China, which currently attracts nearly a quarter of global venture capital investment in recent years.

Even as Canada's leading startup hubs have registered considerable increases in their absolute levels of venture capital investment and startup activity, they too have lost ground to other

leading Global Startup Hubs like Beijing, Shanghai, London, Berlin, Amsterdam, and Stockholm, Bangalore, Mumbai and Tel Aviv, which have risen even faster. None of Canada's cities rank among the 19 global cities that occupy the first or second tiers of Global Startup Hubs. Indeed, the leading hubs continue to have a huge advantage. Just the top six Global Startup Hubs—San Francisco, New York, Boston, San Jose, Beijing and London - attract more than half of all global venture capital investment, despite accounting for just one percent of the global population.

It is time for Canada and its leading cities to double down on their efforts to build more globally competitive startup ecosystems.

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