



# Edmonton Ecosystem Assessment

May 2018

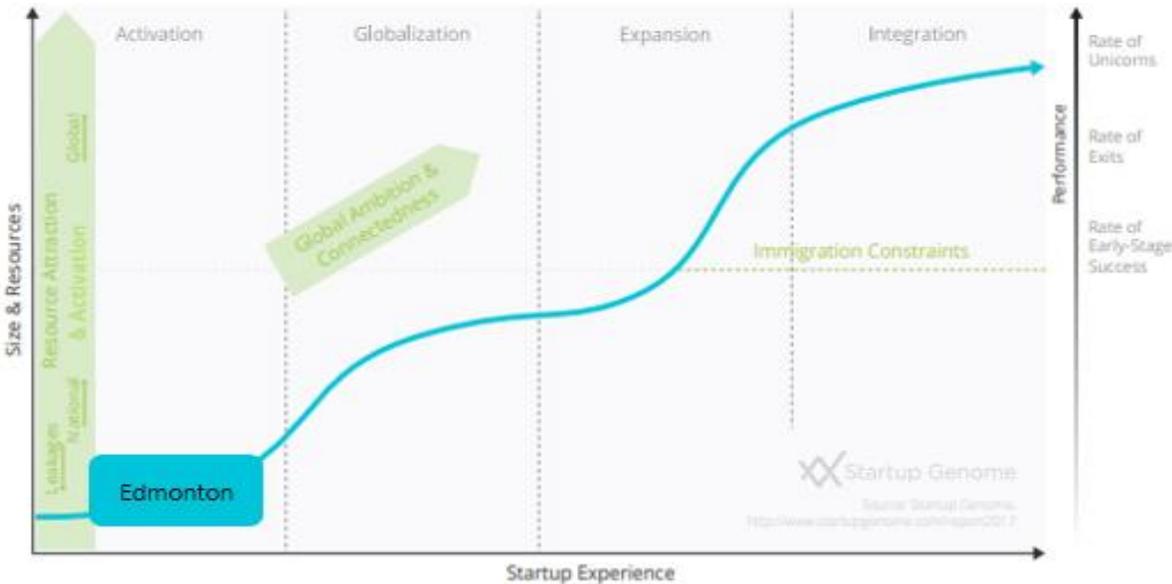
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# Ecosystem Lifecycle Analysis

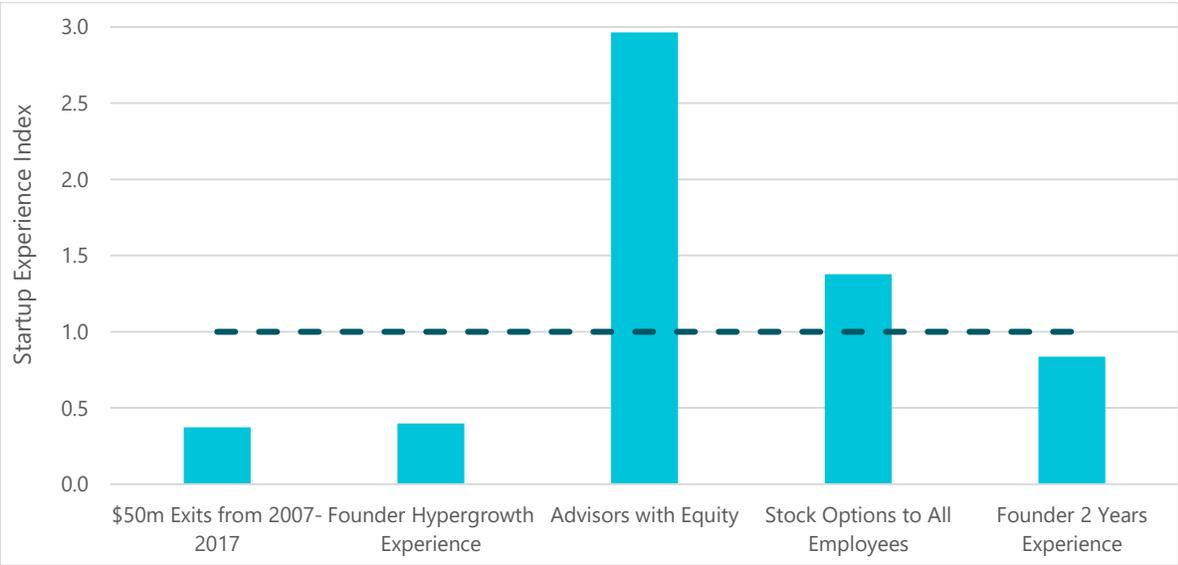
Local resources—whether money, time, or space—are limited, and their application must be aligned with the ecosystem’s evolution to maximize impact. The Ecosystem Lifecycle brings focus onto how an ecosystem compares to others, and what are the most effective and high-impact actions that can be taken. A review of the Edmonton Ecosystem Size, Resources, and Startup Experience results indicates that it is in the Activation Phase.

The Ecosystem Lifecycle Model



## Startup Experience

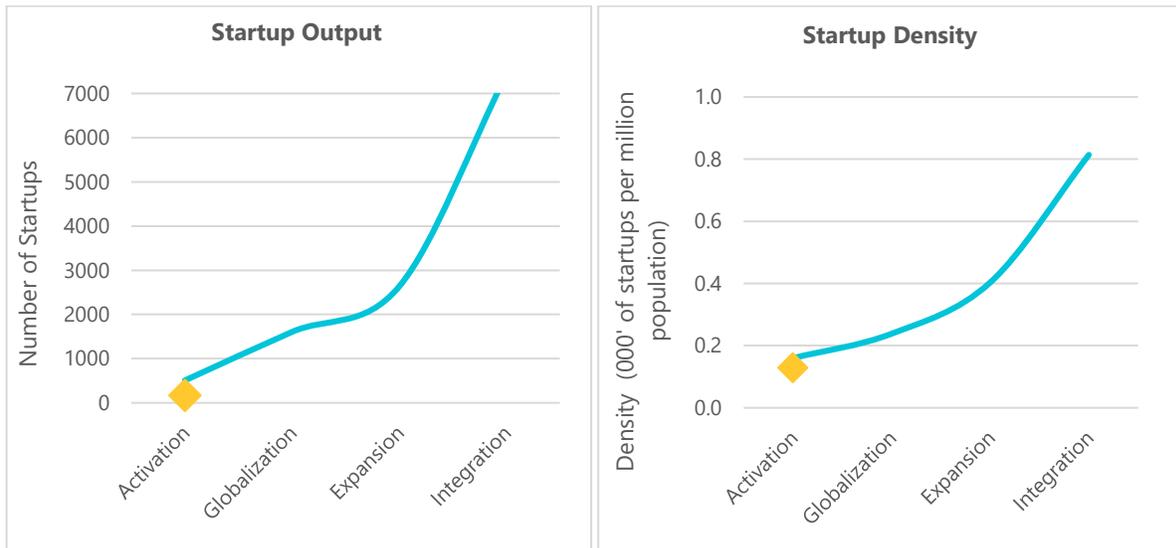
Ecosystem size, and later its performance, is driven by Startup Experience which captures the common pool of experience and know-how that startups can draw on in an ecosystem. Edmonton’s Startup Experience level is lower than Activation peers:



This is a function of time, and we expect that as the Edmonton ecosystem grows and develops, Startup Experience will increase as well.

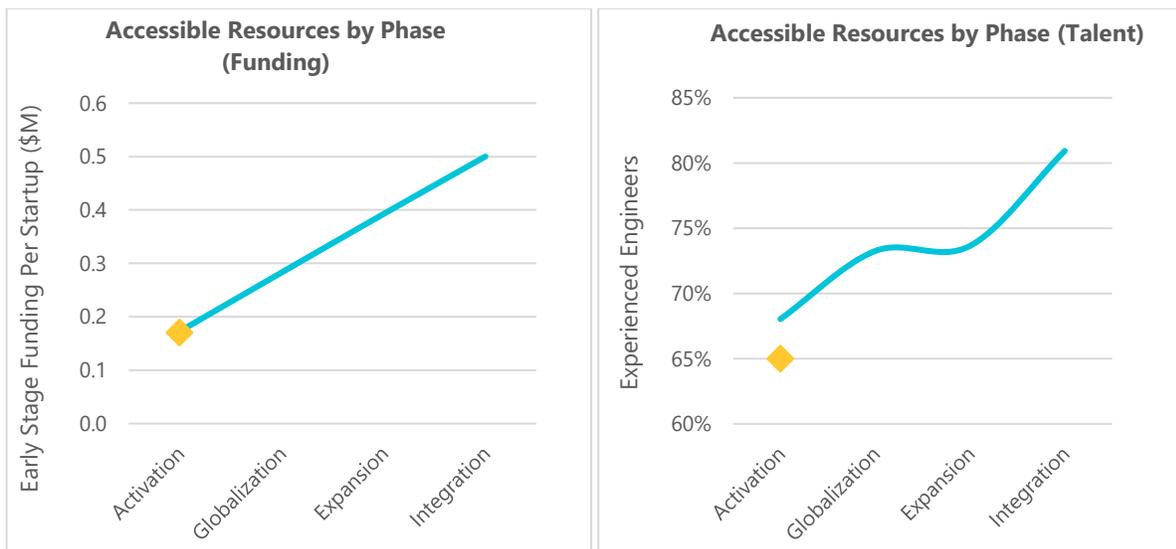
### Startup Output & Density

Startup Output measures the estimated number of startups in an ecosystem. Generally speaking, ecosystems need higher Startup Output (more startups) in order to enjoy faster ecosystem growth and higher performance. Output varies according to other factors such as the size of its population. For this reason, we also look at Density, which is the number of thousand startups per million people. For Edmonton, Ecosystem Size (Startup Output) and Density are below the respective Activation phase averages.



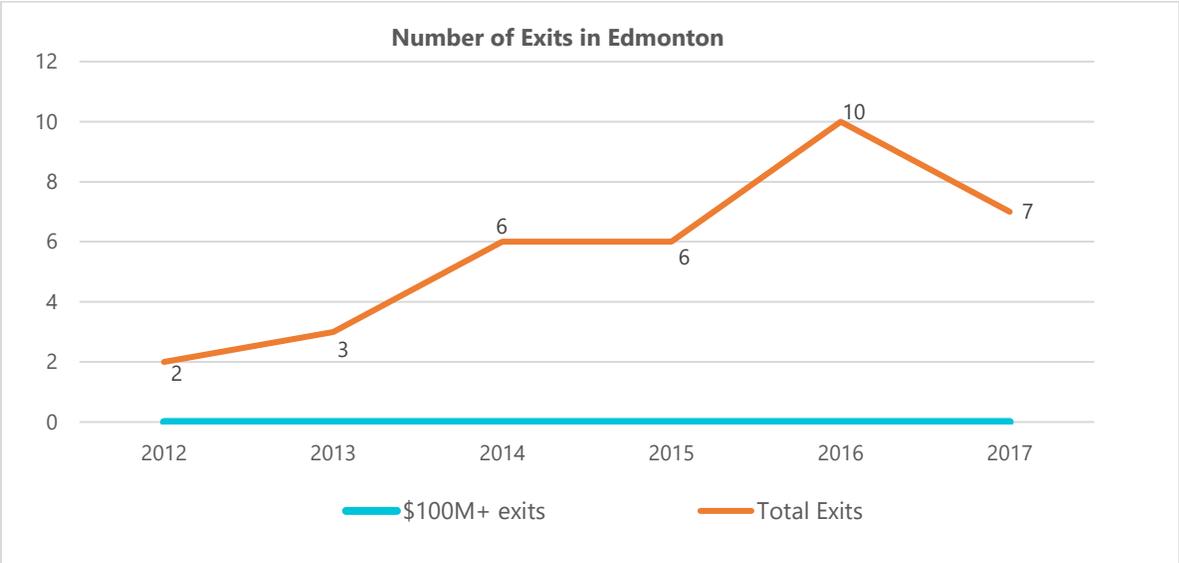
### Access to Funding & Talent

Edmonton is close to phase average in Funding but lower in Experienced Engineers



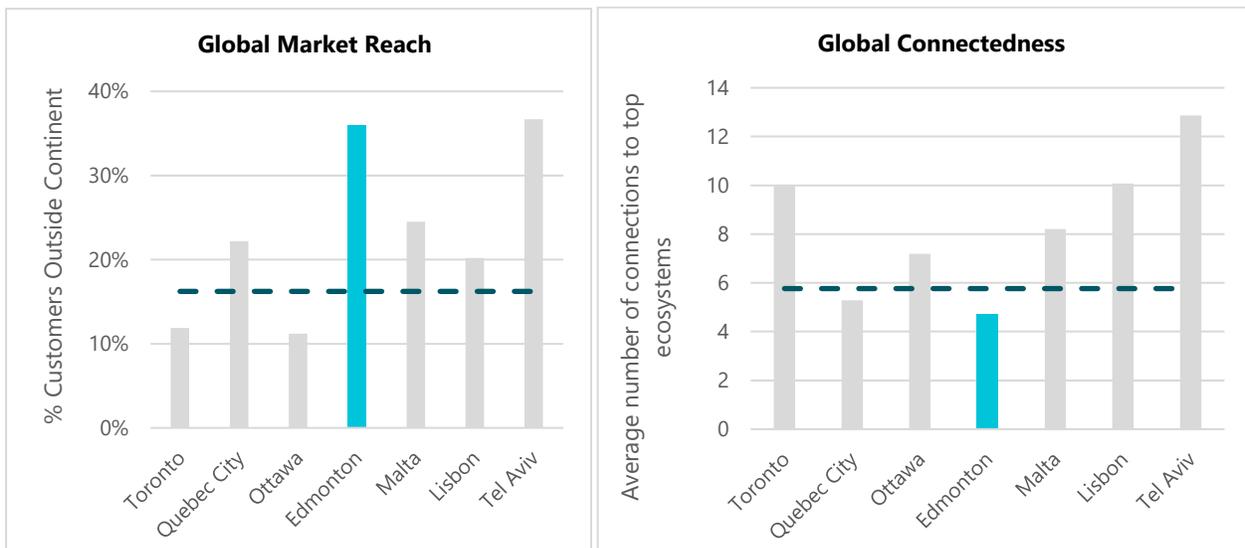
# Exits and Triggers

What we call “Triggers” are the externally impressive exits and high startup valuations that spark a sharp increase in Resource Attraction, driving the growth of an ecosystem and its evolution to the next phase of the Lifecycle. Larger exits in particular—those over \$100 million—help drive such step changes. In the case of Edmonton, annual exit volume has increased over the years, but the ecosystem needs more \$100m+ exits:



## Global Market Reach and Global Connectedness

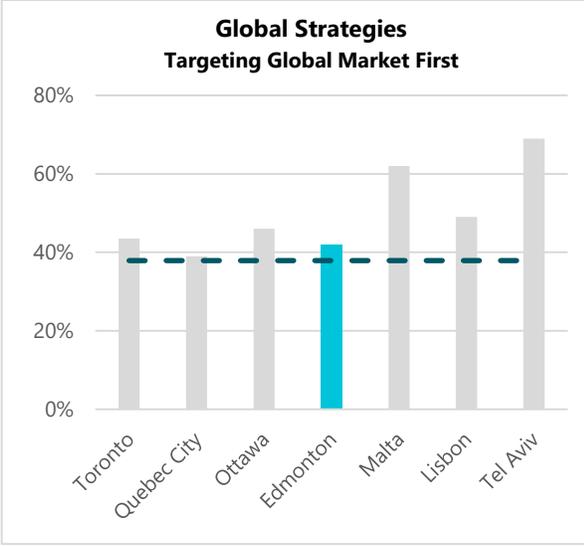
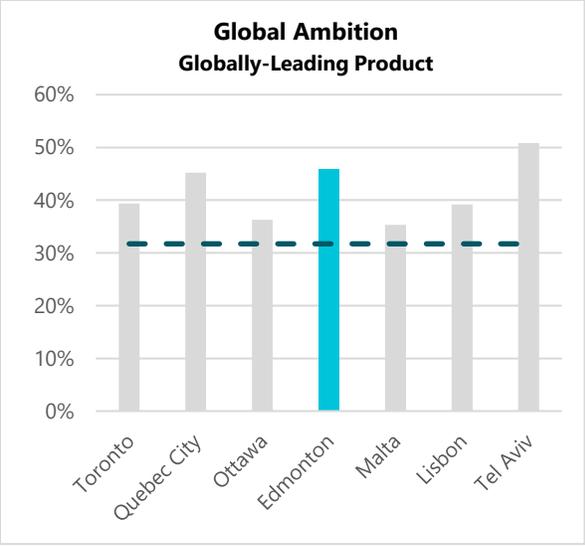
Global Market Reach (GMR) looks at the extent to which startups in an ecosystem sell to customers both outside the country and outside the immediate continental region. Years of analysis have shown GMR to be highly related to startup growth and scaleup production. In turn, GMR is driven by Global Connectedness, relationships between founders and executives in other countries. These relationships import ideas and innovation into an ecosystem and help raise the sights for local founders. Edmonton has higher Global Market Reach than Activation phase average, even with a relatively low level of Global Connectedness:



This tells us that the current GMR among Edmonton startups may not have a strong foundation. Closer analysis of other global dimensions (see below) shows that while Edmonton startups may be going-global, the ecosystem needs to develop more global links to support that ambition.

### Global Market Reach

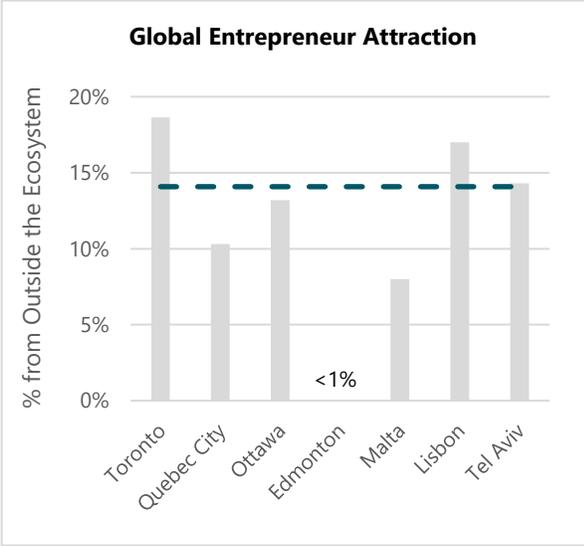
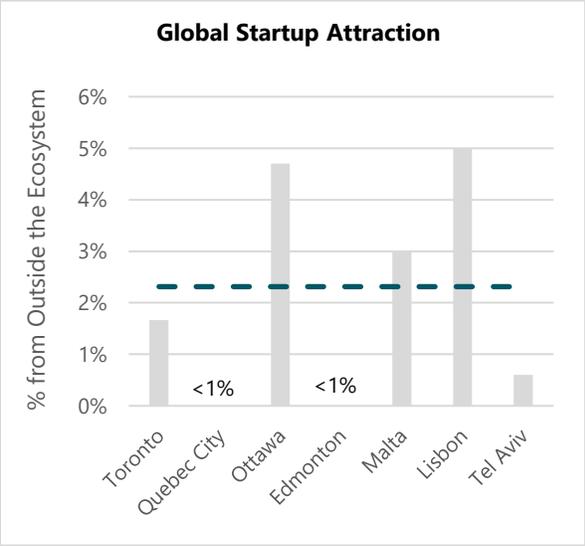
Higher levels of selling to global markets is also driven by ambition and go-global strategies. Edmonton founders report that they are developing new products for global markets (see left panel below), and that they are going global early on in their startup journey (right panel).



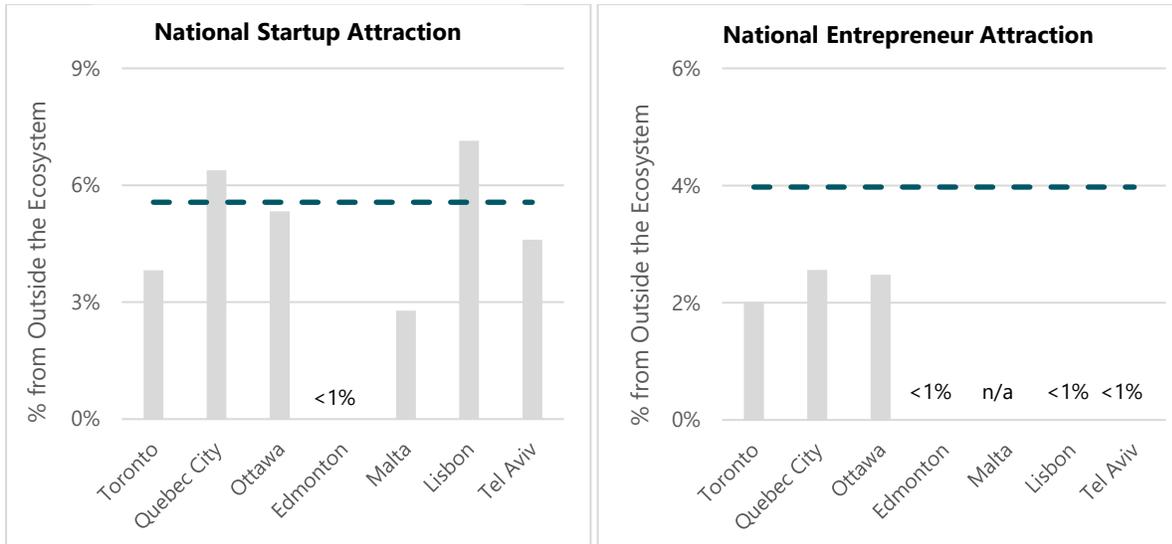
**Resource Attraction**

To support the ambition levels of its startups and their go-global strategies—even in the absence of a higher level of Global Connectedness—Edmonton needs to attract resources from elsewhere. This means drawing in entrepreneurs and startups from other parts of Canada and the world, to help globalize the entire ecosystem.

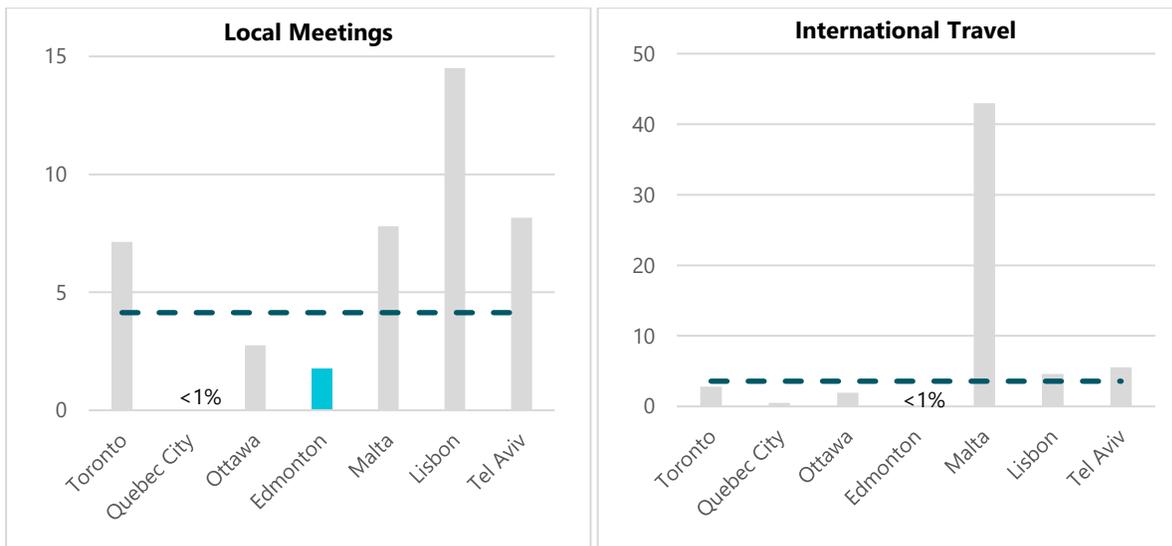
- 1. **Resource Attraction:** While the Activation of local resources continues to be important for Edmonton, so too is increasing the gravitational pull for resources from outside.
  - a. Global Resource Attraction: As is normal for its phase, Edmonton’s Global Resource Attraction is very low:



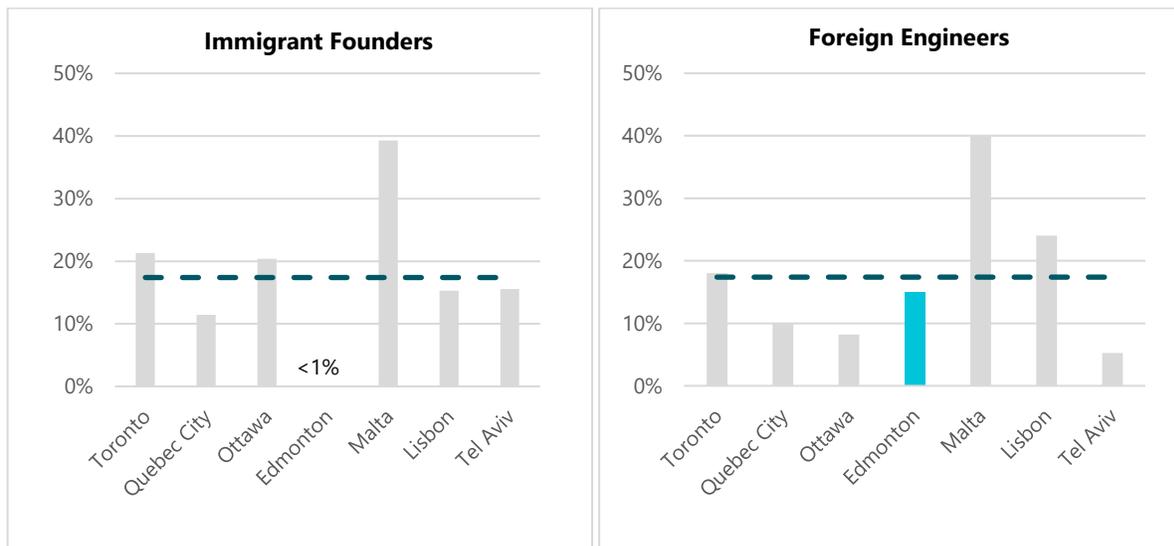
b. National Resource Attraction: Edmonton also lags Canadian peers in attracting resources from within the country:



2. **Global Networking:** Local founders can build Global Connectedness in two different ways: by traveling to other places, and by hosting founders from other ecosystems. Edmonton founders travel to top ecosystems at a low rate (which is normal for phase), and make few such connections locally:



3. **Foreigners and Immigrants:** Immigrant founders and engineers bring many global connections with them to an ecosystem. Edmonton has a low proportion of immigrant founders, suggesting more can be done:



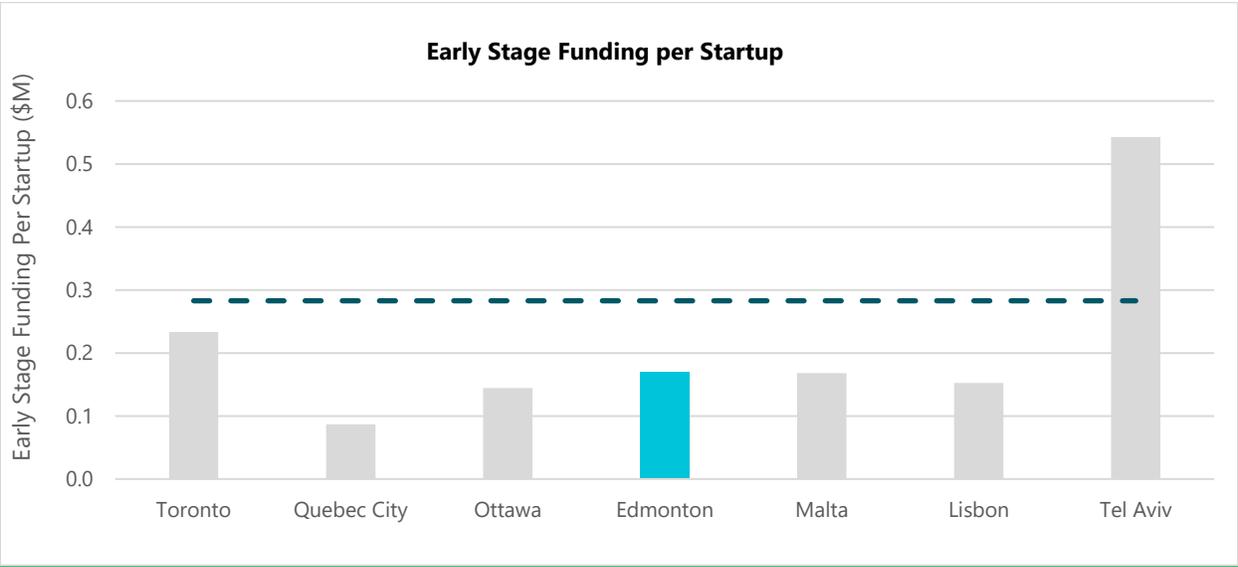
Currently, Edmonton startups report a high level of selling to global markets, matched by a high level of ambition to do just that. Underneath, however, the ecosystem is not well-connected globally and does not attract high levels of resources from elsewhere. This may limit the overall GMR for Edmonton startups and hold back the ability of the entire ecosystem to globalize and grow.

# Funding

A key resource for early-stage startups is funding—while this is a challenge for nearly every ecosystem, it is important to increase both the availability and accessibility of funding for startups. In general, there can never be enough early-stage funding in an ecosystem, and that level needs to grow as the ecosystem develops.

## Early Stage Funding<sup>1</sup>

To compare ecosystems in a manageable way, we look at the sum of all seed and Series A investments in tech companies, normalized by the number of startups in a given city or region. Here, we see Edmonton below the Globalization phase average (dotted line) in Early Stage Funding per Startup:



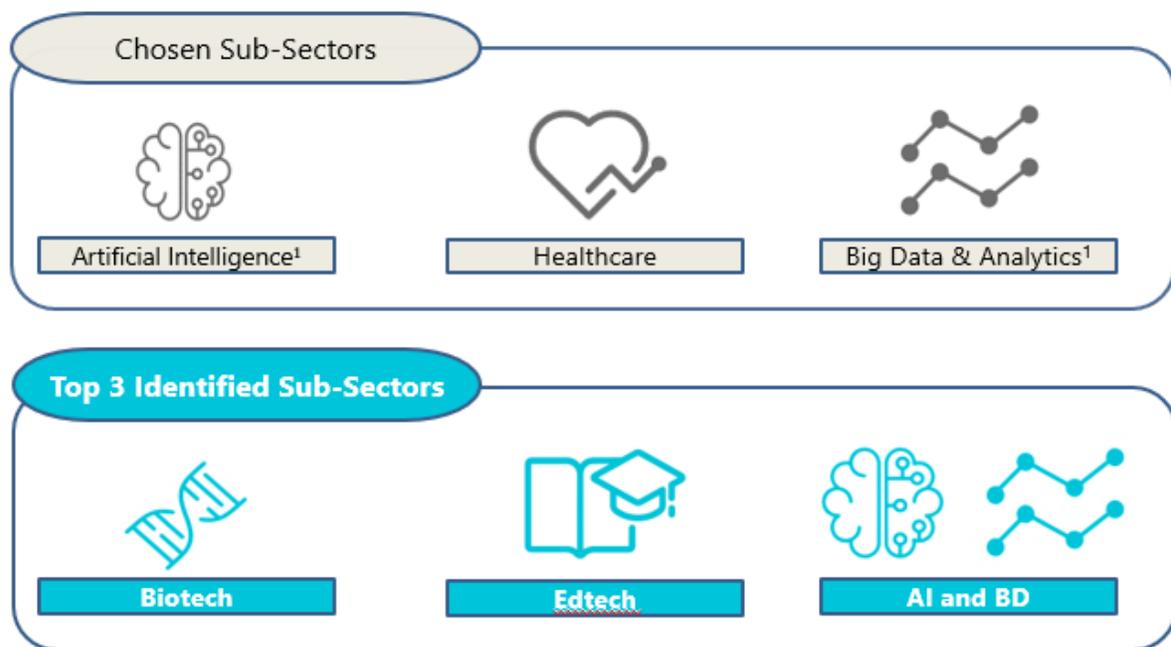
<sup>1</sup> Not based on Startup Genome data. Based on Crunchbase and DealRoom and subject to normal issues with funding data

## Sub-Sector Strengths

Analysis of emerging areas of sub-sector strength in an ecosystem—and where there are existing assets to leverage—focuses on the following aspects:

- 1. Startup Sub-Sector Analysis:** Assessment of startups in one of the Startup Sub-Sectors with a special focus on their performance and overall attractiveness
- 2. Existing Market & Legacy Industry Analysis:** Identification and assessment of existing markets and potential legacy industries that are related to the startup sub-sector
- 3. Talent & Knowledge Analysis:** Assessment of university infrastructure and output that feeds talent and expertise demand of the sub-sector

Sub-Sector Strategy Development focuses on allocating more resources to Startup Sub-Sectors most related to your local strengths. Using our framework, we look at six sub-sectors in Edmonton: those identified a priori as areas of strength and those that emerged from the analysis as having potential for growth.



1. Artificial Intelligence and Big Data are covered together as "AI and BD"

Focusing on four key sub-sectors and how they rank globally in Edmonton shows the following results:



	Biotech	Edtech	AI & BD	Healthcare
<b>Global Rank (#)</b>	48	59	59	63
Early-Stage Funding	41-50	Less than 50	Less than 50	Less than 50
Startup Output	-	-	-	-
Sizable Exits	-	-	-	-
Legacy Assets	N/A	-	N/A	-
University Talent	41-50	41-50	31-40	31-40
Patent Creation	N/A	N/A	41-50	31-40

## Priority issues & Actionable insights

Based on the foregoing analysis, we suggest that key focus areas for leaders and organizations in Edmonton should:

### 1. Grow the size of the Startup Ecosystem

- Identify and support local entrepreneurs to be the voice of and actively shape the community
- Identify and support organizations with the mandate and physical space to bring people together,
- formulate the right behaviours and build the culture

### 2. Increase Early Stage Funding

- Widen the funnel and increase startups with seed funding
- Support the formation of Angel groups
- Increase access to Series A capital

### 3. Create Microcosms of Success

- Focus on sub-sectors like Artificial Intelligence, Big Data and Health
- Create corporate innovation and mentorship programs that concentrate resources

### 4. Grow Global Connectedness

- Develop startups with global potential and scaleups with global leadership
- Move from activation objectives to globalization objectives