## Contents

<table>
<thead>
<tr>
<th>Page</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>1. Executive Summary</td>
</tr>
<tr>
<td>8</td>
<td>2. Ecosystem Description and Stakeholder Perspectives</td>
</tr>
<tr>
<td>9</td>
<td>2.1 Description</td>
</tr>
<tr>
<td>11</td>
<td>2.2 Entrepreneurs' Persona</td>
</tr>
<tr>
<td>13</td>
<td>2.3 Stakeholder Perspectives</td>
</tr>
<tr>
<td>16</td>
<td>3. Ecosystem Assessment</td>
</tr>
<tr>
<td>18</td>
<td>3.1 Performance and Lifecycle</td>
</tr>
<tr>
<td>22</td>
<td>3.2 Funding</td>
</tr>
<tr>
<td>28</td>
<td>3.3 Market Reach</td>
</tr>
<tr>
<td>31</td>
<td>3.4 Talent</td>
</tr>
<tr>
<td>32</td>
<td>3.5 Startup Experience</td>
</tr>
<tr>
<td>34</td>
<td>3.6 Policy</td>
</tr>
<tr>
<td>38</td>
<td>4. Case Studies</td>
</tr>
<tr>
<td>39</td>
<td>4.1 Chile</td>
</tr>
<tr>
<td>40</td>
<td>4.2 Malaysia</td>
</tr>
<tr>
<td>41</td>
<td>4.3 London</td>
</tr>
<tr>
<td>42</td>
<td>4.4. Singapore</td>
</tr>
<tr>
<td>46</td>
<td>5. Key Findings and Recommendations</td>
</tr>
<tr>
<td>47</td>
<td>5.1 Key Findings</td>
</tr>
<tr>
<td>48</td>
<td>5.2 Recommendations</td>
</tr>
<tr>
<td>56</td>
<td>6. Sources</td>
</tr>
<tr>
<td>57</td>
<td>Literature</td>
</tr>
<tr>
<td>57</td>
<td>Primary Data Sources</td>
</tr>
<tr>
<td>57</td>
<td>Secondary Data Sources</td>
</tr>
<tr>
<td>58</td>
<td>7. Acknowledgement and Partners</td>
</tr>
<tr>
<td>59</td>
<td>Authors</td>
</tr>
<tr>
<td>59</td>
<td>Project Team</td>
</tr>
<tr>
<td>59</td>
<td>Survey Participants and Interviewees</td>
</tr>
<tr>
<td>60</td>
<td>Partners and Collaborators</td>
</tr>
<tr>
<td>64</td>
<td>Startup Package Partners</td>
</tr>
<tr>
<td>64</td>
<td>Survey Promotion Collaborators</td>
</tr>
</tbody>
</table>

**Note:** All data in U.S. dollars.
We came together for one reason:

To radically improve the success rate of businesses.

With 34,000 signups, Compass is the leading solution for automated management reports and benchmarks for small and medium-sized online businesses.

Compass is made for executives who seek insight on how to improve their ROI without having to rely on analysts or consultants. Compass automatically prepares best-practice reports and benchmarks for your weekly and monthly business meetings.

You get your first interactive report in less than two minutes after signing up. Simply connect the tools you use to manage your business and Compass will create your tailored report.

Why we built Compass:

In our research as part of the Startup Genome Project on the success and failure of young firms, we found that most businesses fail not because of competition, but rather due to self-destruction. In other words, they fail because they execute on the wrong things.

In our search for scalable solutions to this problem we learned that peer benchmarks and industry data is one of the most effective ways to help businesses focus on executing what matters most.
Hong Kong is not only a fast growing tech startup ecosystem but also one with great potential for acceleration, due to its unique strengths. Its world-class financial industry and its prime location next to the hardware manufacturing cluster of the Pearl River Delta provide the city with timely strategic opportunities just as FinTech and IoT have become key growth areas of the tech sector.

However, in order to capture those opportunities, Hong Kong needs to invest in programs that help its tech entrepreneurs catch up to global know-how and close its talent and angel funding gaps.

In a world where startups have become the #1 driver of economic growth and job creation while large corporations continue to cut down on their workforce, Hong Kong cannot afford to rest on its past achievements and existing industries. Furthermore, as software has become a building block for all other innovation sectors such as biotech, nanotech, life sciences and clean technology, tech startups have not only become an important growth sector, but also a strategic one.

Hong Kong will never be Silicon Valley and should not try to be— and this is true of all other startup ecosystems. Each of the top 20 ecosystems has successfully grown by taking a different path, leveraging its own unique assets, and ending up with a different set of strengths and mix of startups.

Hong Kong is fully capable of successfully developing a strong tech startup ecosystem. Hong Kong has as many, if not more, strengths and strategic assets to build on than several of the top tech startup ecosystem. Hong Kong has several key strengths, two of which confer an advantage to local startups in two of the fastest growing tech sub-sectors: FinTech and IoT. First, it is one of the most important international financial centers in the world, alongside New York, London, and Singapore. This gives FinTech startups privileged access to global customers and deep industry expertise. Secondly, the proximity of China's Pearl River Delta, including Shenzhen, with its globally competitive (if not leading) hardware prototyping and manufacturing capabilities, constitutes an asset for Hong Kong's IoT and wearables startups.

Hong Kong also has challenges. The World Economic Forum's Global Competitiveness Report defined the city's main challenge as the need to evolve to an "innovative powerhouse. Innovation is the weakest aspect of the economy's performance". The Global Entrepreneurship Development Institute (GEDI) ranked Hong Kong #40 worldwide on their 2016 Global Entrepreneurship Index (GEI), down from #30 in 2012. Clearly, changing the population's mindset as to entrepreneurship will be important.

### Ecosystem Assessment

The analysis of Hong Kong's startup ecosystem according to Compass' Ecosystem Lifecycle Model points to the fact that it is at the early phase of development called Activation. In combination with Compass' Input Factor gap analysis, it is the central structure used to understand Hong Kong's ecosystem challenges and frame solutions.

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1 In keeping with Silicon Valley terminology, tech startups and the tech sector refer to software, web, mobile and e-commerce startups.

2 For more information see the Global Startup Ecosystem Report 2015 at http://startup-ecosystem.compass.co/ser2015/


5 For more information see http://thegedi.org/

6 For more information see Compass' Startup Ecosystem Lifecycle Model at http://blog.compass.co/startup-ecosystem-lifecycle-model

7 For more information see Section 3 of Compass' Hong Kong Startup Ecosystem Report at http://startup-ecosystem.compass.co/ser2015/hong-kong
A) Ecosystem Lifecycle Model
Characteristics and challenges typical of startup ecosystems at the Activation phase are all present in Hong Kong. In this phase ecosystems grow healthily through a process called “Catch Up Growth”. Specifically for Hong Kong, its entrepreneurs are just starting to catch up to global know-how through interactions with global stakeholders from the world’s top ecosystems. Through this process they become more successful as they learn global best practices specific to tech startups, such as the latest business models and what constitutes up-to-date global opportunities.

The Activation phase is also characterized by a low attraction of resources such as startups, talent, capital, and investors from top ecosystems. This means except for resources inherited from an economy’s other industries, an ecosystem in this phase is fraught with resource gaps that need to be addressed by the concerted efforts of its local stakeholders. Together with entrepreneurs’ lack of global know-how those gaps limit Ecosystem Performance.

B) Input Factor Gap Analysis

- **Ecosystem Performance**
  Hong Kong’s Ecosystem Value is $2.8 to 3.5 billion, well below that of Montreal and Vancouver (ranked #20 and #18 respectively), despite their much smaller populations and similar number of startups (in the low 2,000s). Singapore’s Ecosystem Value is about four times higher than Hong Kong’s.

  Performance issues are further illustrated by its low Exit Value (total exit valuations of $1.4 to 1.7 billion), complete lack of unicorns, and the total valuation of all its pre-exit tech startups of $1.5 to 1.8 billion—less than one sixth that of Singapore. Meanwhile, Hong Kong’s Startup Performance, i.e. the growth of its startup valuations over time, is one-third that of New York.

- **Input Factors**
  - **Funding**
    Hong Kong has a seed funding gap, more specifically a lack of active angel investors. It becomes clear when looking at the proportion of startups obtaining a “normal seed” round, which is less than half the proportions found in Singapore and New York.

  - **Market Reach**
    Hong Kong’s early-stage startups show great results in reaching foreign customers, with a higher percentage than that of all top 20 ecosystems, except Tel Aviv.

- **Talent**
  Unlike other ecosystems at the Activation phase, Hong Kong’s institutional venture investors are already caught up to global know-how because they actively invest in startups from top ecosystems, using Hong Kong as an Asian headquarter.

Fierce global competition for resources means Hong Kong needs to invest aggressively

Growing from a relatively small base its Growth Index is 3.0, thanks to the growth in number of startups and Exit Value, and despite a 21% reduction in VC investments. This matches the 5th fastest growing ecosystem among the top 20, Amsterdam.

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- **Startup Experience**
  Hong Kong’s Startup Performance, i.e. the growth of its startup valuations over time, is one-third that of New York.

- **Policy**
  According to the research by CITIE⁸, Hong Kong falls within the third quartile of the analysis—the Builders peer group. Builder cities have begun to actively incorporate innovation and entre-
entrepreneurship into their municipal policy development. Among its peer group Hong Kong is leading in the City as a Strategist policy role, but generally behind its global peers and Singapore in other roles.

Because of its technical Talent gap, Hong Kong’s immigration policy is of primary importance. Most experts regard immigration policy as one of the top barriers to the growth of its startup ecosystem.

Objectives

The objective is to diversify and strengthen Hong Kong’s economy by aggressively investing in the growth of its tech startup ecosystem. This can be achieved by developing a strategic plan integrating the programs recommended in Section 5.2, and building consensus for concerted actions by its stakeholders.

Different stakeholders can lead or participate in taking action. The role of the government is to coordinate efforts, facilitate the activities performed by private entities, and invest or otherwise promote activities related to a specific Factor gap.

Recommended strategies, tactics and programs are relevant to all small and medium-sized ecosystems at an earlier stage of development.

Short-Term Priorities

A) Increase Global Know-How Among Entrepreneurs
Hong Kong’s #1 priority is to help its entrepreneurs catch up to global know-how. Until this is achieved the ecosystem will be at a disadvantage—being generally behind top ecosystems and their rapidly evolving business models and solutions that address up-to-date global market opportunities. Instead, Hong Kong startups will be working on local opportunities, producing slower growing revenues that neither deserve large amount of late-stage capital nor produce large exits.

Catch Up Growth activities include a variety of proven programs, including attracting global accelerators to Hong Kong and developing special access for local startups in overseas accelerator programs. Accelerators not only teach up-to-date global know-how but also act as a “social glue”, enhancing the relationships between local stakeholders.

B) Improve Availability of Top Technical Talent
Continue to work on increasing the popularity of coding and technical degrees among the population. Develop immigration programs to attract young graduates from countries with top quality technical talent and specifically allow tech startups to sponsor work visas for them. Good targets include Russia, former Soviet Bloc countries and Eastern Europe, as well as mainland China. This can also have a positive impact on local entrepreneurial activity.

C) Grow the Tech Angel Investor Community
One of the best ways to close a seed funding gap is to implement a matching funds program. Because Hong Kong does not have a gap in Series A and later funding rounds, focus programs—such as the government’s proposed matching fund—on seed funding.

D) Develop and Execute Sub-Sector Strategies
Hong Kong’s strengths support selecting IoT and FinTech as sub-sectors in which to make long-term strategic commitments. Commitments would be made in the short term in order to seize leadership, knowing other ecosystems are already positioning themselves for such leadership. This would mean dedicating a portion of program budgets and efforts to IoT and FinTech.

Long-Term Priority

E) Continue to Increase Entrepreneurial Activities
As Singapore discovered 15 years ago, an ecosystem cannot thrive without closing its gap in entrepreneurship levels. While it is difficult, within a period of 10 years committed efforts can change a population’s mindset and have a measurable impact on entrepreneurial activity. Details of effective programs are generally known and widely available. As noted above, immigration can help.

Conclusion

While Hong Kong is certainly behind the top 20 ecosystems in terms of Ecosystem Performance and several Input Factors, it benefits from more assets and strategic strengths on which to capitalize than most. Its potential is just starting to be realized as shown by its recent growth, which matches the fifth fastest growing ecosystem among the top 20. With aggressive investments and concerted efforts by its stakeholders, Hong Kong can address its key challenges and further accelerate the growth of its tech startup ecosystem along with producing globally leading startups and unicorns.
Ecosystem Description and Stakeholder Perspectives
2.1 Description

The Hong Kong SAR consists of 7.3 million people and is one of the most densely populated areas in the world, with 6,600 people per square kilometer. In the international business world, Hong Kong is widely known for its ease of doing business, sound legal environment, and advantageous geographical location. According to the Heritage Foundation, Hong Kong has ranked first globally in terms of economic freedom for 21 consecutive years (1995-2015). Alongside New York, London, and Singapore, the global trade hub is also one of the most important international financial centers in the world.

The World Economic Forum's Global Competitiveness Report 2015-2016 confirms Hong Kong's market dynamism and efficiency, as well as world-leading transportation and communications infrastructure, known as key ingredients for any successful business cluster.

On the downside for the startup ecosystem of Hong Kong, the World Economic Forum's Global Competitiveness Report goes on to define the city's main challenge as the need to “evolve from one of the world's foremost financial hubs to an innovative powerhouse. Innovation is the weakest aspect of the economy's performance and the business community consistently cites the capacity to innovate as their biggest concern.”

Entrepreneurship

Hong Kong has a history of being quite entrepreneurial. Throughout the 1970s and 80s manufacturers, traders, and real estate developers all embraced the self-made mentality. However, with rising costs of doing business and a new emphasis on job security and income stability, Hong Kong entrepreneurship levels are not what they used to be. The aging of the population also contributed to the fall in entrepreneurship rate.

The Global Entrepreneurship Development Institute (GEDI) ranked Hong Kong #40 worldwide on their 2016 Global Entrepreneurship Index (GEI). Hong Kong outperformed the global and Asia Pacific average on all indicators except for Startup Skills, Technology Absorption, and Competition. However, Hong Kong's position has slid from #30 in 2012, despite efforts made during the last few years to promote and support entrepreneurship at the university level.

To build a sustainable basis for future value creation, ecosystem stakeholders in Hong Kong are working to embrace a more startup-centric culture. “Startups are an important component of the disruptive innovation process that is redefining the global economic, social, and political order. For a long time, Hong Kong has been very successful at integrating and mobilizing the economic forces in the region and around the world in manufacturing, trading, and services. We are now getting into a stage when Hong Kong has to play this role in innovation,” says Professor Richard Wong of the University of Hong Kong.

2.1.1 Key Strengths and Opportunities

Financial Industry and FinTech

Hong Kong is a global financial center—hosting headquarters and representative offices of more than 70 of the world's 100 largest banking institutions. Two reasons for this performance have been Hong Kong's strategic location and governmental policies that promote free market principles. Effective and transparent regulations, low taxes, and no restrictions on international capital flows have let the local financial sector thrive.

Today, Hong Kong offers an integrated network of institutions and markets that provide a wide range of products and services to customers as well as investors. In total, the banking sector counts...
Hong Kong is also a large international insurance center, with 21 authorized insurers from other countries. In 2013 Hong Kong was also ranked the world’s fifth largest foreign exchange market in terms of turnover.

Hong Kong’s world-class stock market is also a key asset. It was ranked fifth largest in the world and the third largest in Asia in terms of market capitalization at the end of April 2015. For this reason, while few large tech companies have originated from Hong Kong, there are an impressive 269 VC/PE backed Chinese-listed companies on the Hong Kong stock market with a market cap of about $1.3 trillion. In the first half of 2015, IPO proceeds at the Hong Kong Stock Exchange (HKEx) exceeded $17 billion, making it the world’s largest IPO market in terms of funds raised. Impressively, this performance is around 8x higher than the one captured by the Singapore Stock Exchange (SGX).6

Recent industry developments suggest that traditional brick-and-mortar finance is on the decline while innovative financial technology (FinTech) startups thrive. Markus Gnirck, Co-Founder of Startupbootcamp FinTech notes: “The ongoing growth in FinTech startups outlines the very large opportunities in this space. Last year alone, the global number of FinTech startups mushroomed by three times, growing from 3,000 to an estimated 15,000 startups.”

Respective growth rates in VC investments confirm that FinTech is currently one of the hottest sub-sectors of the tech startup space. While FinTech investments were around $4.05 billion in 2013, this amount tripled to $12.21 billion the year after.9 Market Intelligence predicts that cumulated investments will reach close to $20 billion in 2015.10

Despite FinTech being an emerging trend with around 80% of all startups still operating at the seed stage, 38 of them have already reached unicorn status and show potential to disrupt high-street brands.

Hong Kong’s financial sector holds a variety of assets that can be utilized to establish a competitive FinTech startup ecosystem. The density of financial institutions in Hong Kong provides easier access to industry expertise in both the B2B and B2C sectors—key factors in the development of a business model and achievement of problem/solution fit. Also, the presence of decision makers from some international financial institutions means Hong Kong’s financial industry is part of the global market for B2B FinTech startups. This allows local and overseas startups to perform customer development activities in Hong Kong, and later, to start scaling their business. All of these assets combine to confer a competitive advantage to local FinTech startups.

A recent industry report highlighted “peer-to-peer lending, equity crowd-funding, wealth management, data analytics, and crypto-currencies” as sectors with potential for Hong Kong.11

Shenzhen, China, and Internet of Things (IoT)
Hong Kong’s proximity to the China’s Pearl River Delta, including Shenzhen, with its globally competitive (if not leading) hardware prototyping and manufacturing capabilities, translates into a strategic growth opportunity for Hong Kong in relations to IoT and wearables.

As reported by Forbes,12 Juniper estimates the wearables 2014 market size to be $1.5 billion, with most forecasts expecting it to at least double in 2015, while IDC forecasts the worldwide market for IoT solutions to grow from $1.9 trillion in 2013 to $7.1 trillion in 2020. Gartner predicted that the industry will grow to 26 billion units installed in 2020, representing an almost 30-fold increase from 0.9 billion in 2009.

The new hardware revolution presents an exciting opportunity for Hong Kong’s startup ecosystem. In an interview with InnovationAus.com, InvestHK Director-General Simon Galpin explained that “[a]nything sensor-related, or Internet of Things-related in the next five years will likely be manufactured in the Pearl River delta … [and] it is now possible to take a product from concept to scalable manufacturing in four months.”13

Galpin says Hong Kong’s primary attractiveness for the wearables and IoT sector is in its business connectivity; it is a place where a company can very quickly scale to global distribution ambitions. He explains that if entrepreneurs “want to use China for one part...
of their business, or other economies like Vietnam or the Philippines, then Hong Kong is a great hub to manage those different parts of the supply chain.”

Hong Kong’s investment in IoT is illustrated through a recent announcement between Hong Kong Science & Technology Parks Corporation (HKSTP) and Microsoft Hong Kong Limited regarding a new partnership that aims to raise the IoT industry in Hong Kong to the world stage by providing IoT developers with support to enhance their product offerings.

“We currently have 90 IoT companies at Science Park working on IoT-related projects. Their work includes a wide range of endeavors ranging from data security and IoT-enabled ERP systems,” said Allen Ma, Chief Executive Officer, HKSTP. “The next few years will be key for Hong Kong’s development into an IoT hub.”

In addition to the support from the government, corporations, and science parks, a number of private initiatives are taking place to support the IoT efforts, such as Brinc, an IoT accelerator.

2.1.2 Local Tech Economy

The ICT sector plays a crucial role in Hong Kong, not only because it underpins its efficient information infrastructure, but also because it ensures competitiveness of the city’s economic pillars: financial services, professional services, logistics, and international trade. Comprised of high-value-added industries such as software and IT services, in 2013 the ICT sector engaged only 3.5% of Hong Kong’s working population while contributing 6.6% to its annual GDP.

According to the Hong Kong Trade Development Council, Hong Kong’s ICT sector employs around 83,000 people. Eight local higher education institutions produce over 2,300 ICT graduates per year, with the University of Hong Kong and the Chinese University of Hong Kong at the forefront.

The core areas of ICT employment in Hong Kong are centered around IT and Software Development (40%), Operation Services (23%), and Field Support (11%) across a variety of business sectors. 15 Hong Kong-based IT companies are mostly known for having expertise in system integration and service delivery, particularly covering the sectors of banking and finance, supply chain management and logistics, retail, and transportation. 16

There have been a number of proactive approaches spearheaded by the Hong Kong government to develop the sector and set up leading tech infrastructure and facilities (see section 3.6 Policy). Hong Kong is internationally recognized for its strongly digitalized economy; the average Internet connection speed is among the fastest in the world, while broadband (85%) and mobile (231%) penetration rates are also exceptionally high.

According to the 2015 Global Compass survey, less than half of all Hong Kong startups are B2B (see Figure 1). With 28% of startups focusing on small- and medium-sized businesses and 19% focusing on enterprises as primary users, the local share of B2B startups is significantly lower than in any other ecosystem described in the report. While Hong Kong’s Asian counterparts—Singapore and Kuala Lumpur—already indicate a share of around 60% of B2B startups, the B2B focus is even stronger in the top ecosystems London, New York, and Silicon Valley. The relatively lower proportion of B2B startups in Hong Kong points to the observation that local entrepreneurs face difficulties in developing business models that create value on a global scale. To do so in the B2B space, solutions often need to be driven by proprietary, cutting-edge technologies. Be it web or mobile, many consumer-facing business models in turn are based on relatively simple coding efforts and therefore somewhat easier to replicate.

2.2 Entrepreneurs’ Persona

An entrepreneurial mindset is not part of the culture of Hong Kong, where having a good job with a large, well-established company is highly valued. The societal pressure to succeed on the conventional path is ever-present in conversations about innovation and startups. These external influences result in fewer and more risk-averse entrepreneurs as compared to the world’s top ecosystems.

However, the mentality is definitely starting to shift, and as a new generation of workers graduate and enter the workforce, they appear less willing to accept the path of previous generations. Gene Soo, co-founder of StartupsHK, commented that “nowadays people are not limited to working for big corporations to make ends meet but have more choices of career as they can build a following using free online channels such as the Facebooks and Youtube of the world. This results in more people being able to do something that they actually like to do and would benefit everyone.”
Another interviewee explained that astronomical housing prices have resulted in some change of mindset among young people. “They realize that even if they work 100 hours a week at a normal job they won’t be able to afford their dream home, but if they instead work at a startup and earn stock options they have a chance of becoming financially independent if the company makes it big.”

Figure 2 shows the average age of founders in some top ecosystems. Hong Kong’s average founder age is between four and six years younger than that of Silicon Valley and New York.

This may suggest that the younger generation is embracing entrepreneurship at a higher rate than older ones. However, research shows that a lower average is often the result of a lower rate of second and third time entrepreneurs, which can be affected by a seed funding gap. A lower founder age in turns affects the proportion of founders with prior experience in a hypergrowth startup, which in fact is much lower in Hong Kong than in top ecosystems. These indicators are revisited in sections 3.2 and 3.5.

Another group of founders, those in their 30s and 40s, are active in Hong Kong. Many of them belong to the expatriate community. While they are less prominent than the younger ones, they are still significant in number. Anson Bailey, Partner at KPMG, concurs: “There is an increasing appetite among C-level executives in big corporations to do something different and jump into entrepreneurship. They want to be part of the growing startup community whether that’s investing, advising or joining a new, dynamic management teams. Quite a few of them have been based here in Hong Kong for a number of years and simply don’t want to leave.”

While there may be a shift towards becoming more entrepreneurial, it is clear that it has not reached everyone yet. As noted in Figure 3 below, Hong Kong falls quite a bit behind leading ecosystems like Silicon Valley, New York, and Singapore on the proportion of female founders.
2.3 Stakeholder Perspectives

This section provides an insider’s perspective on the startup ecosystem in Hong Kong. The information has been gathered through in-person and telephone interviews with diverse stakeholders (entrepreneurs, investors, and leaders of startup-related organizations such as accelerators) from Hong Kong, mainland China, Singapore and Kuala Lumpur. Given the personal nature of these stories, some may not be fully representative of the general view on the ecosystem.

2.3.1 Entrepreneur Perspective

When comparing local circumstances with that in the leading ecosystems around the world, several entrepreneurs expressed doubts about whether Hong Kong constitutes a good trial market for startups. Aaron Wang of AdvanPro points to the small size of the market and, more importantly, to the society’s reluctance toward new and innovative products. For this reason, Wang believes the market acceptance towards new products is relatively low.

Relatedly, in an interview with the South China Morning Post, Eric Chen of the award-winning startup Vitargent comments that “Hong Kong does not lack inventors and entrepreneurs. But government departments do not take the lead in using homegrown technology...Hong Kong officials are reluctant to take risks.”

The ease of setting up a business receives mixed reviews. A startup executive mentioned that “the Government has provided excellent infrastructure for startups. One can incorporate in a week and it only costs $200 USD. Everything is very quick, transparent, and efficient.”

Another startup leader disagreed: “I don’t think Hong Kong’s financial infrastructure makes it easy for startups to work. Getting a business account for startup is difficult. In some ways, HK’s financial system is backwards. There is absolutely an opportunity for FinTech startups to come in and disrupt the Hong Kong financial service industry.”

Relatedly, several stakeholders pointed to the need for the government to play a role of facilitator in reshaping regulations and removing roadblocks if Hong Kong is to fully develop as a FinTech hub.

Most entrepreneurs also touched on Hong Kong’s relation to mainland China. Danny Yeung, CEO of Prenetics, talked about scale and the need for entrepreneurs to look beyond the walls of Hong Kong. “While Hong Kong strategically is an important market, it is also a very limited market with a population of seven million people. Thus the need to think regionally from day 1 and to scale across SEA and Greater China. However, even though Hong Kong is close to China, the way of business is immensely different and the ability to execute localization is highly rewarded. There are different jurisdictions in China, and they’re different still in Southeast Asia. Having trusted and well-established partners whom share the same goals and vision is very important.

Another interviewee added, “I think a lot of people see Hong Kong as a bridge to China. I personally disagree with this. I think today, if you want to do China, you should just go to China. I think the relationship between China and Hong Kong is not Hong Kong to China, but Hong Kong helping China to go to the West. Hong Kong helps to export out.”

Hong Kong’s proximity to the Chinese hardware manufacturing cluster has been repeatedly identified as a competitive advantage. Lawrence Morgan, entrepreneur and COO of venture firm and accelerator pioneer NEST, said that Hong Kong, “is the perfect location for hardware and software development. Startups can produce prototypes quickly and cheaply from Hong Kong, given its proximity to Shenzhen.”

Jason Chiu, Founder and CEO at Cherrypicks, says that there could be other connections to be made within Hong Kong. “We have a group of successful local entrepreneurs and industrialists from the 1950s to 1970s. Those 2nd and 3rd generations of industrialists in Hong Kong whom I know are willing to buy innovation and technologies in order to upgrade and create more value for their business. But they would buy from the U.S. or Europe instead of from Hong Kong. Our advantage would be to connect the already successful 2nd and 3rd generation industrialists with local Internet/technology startups.”

Funding

Entrepreneurs are well aware of the fact that there is no shortage of capital in the ecosystem. However, they point out that the majority of VC firms managing tech portfolios do not invest much in Hong Kong-based startups.

An entrepreneur explained, “Capital is plenty in Hong Kong, however it’s not readily available to startups as much as it is in western countries and in other parts of Asia. Crowdfunding platforms helped
a lot in making money more accessible, but most of the capital is going into financial services and real estate. VCs only pay attention if a startup has enough traction.”

When discussing the funding gap Chiu comments: “I also see more angel investors, but not Series A, B, or C investors. There is ample capital and investors in Hong Kong, but investors are investing in China, Israel and Silicon Valley.”

Talent

When it comes to the availability of talent in Hong Kong, the overall consensus from entrepreneurs is that while there are a number of individuals with strong technical skills, the difficulty is to find programmers who are willing to work at a startup. Whether it’s societal pressures demanding young people to work at large and renowned corporations, or fear of income instability with high living costs acting as a barrier, the lack of talent is obvious.

Some believe this mentality is instilled from an early age. Chiu notes, “In Hong Kong, the education system only wants model answers, and taking risk is discouraged. This kind of education goes all the way to university, failing means bad. Starting up and creativity are impossible when people are not willing to take risk and are afraid of failure.” Chiu goes on to say that it is a shift in mindset that is needed. “The most important is to engineer a mindset change—with the Government and parents alike. The Government can do a lot of mindset changes, including changes to the conservative listing rules, immigration, and education policies,” he said.

Another tech startup executive added, “For our company, we have hired over 10 candidates, but none of them have stayed over one year. Not surprisingly most people prefer cash to stock options. But most startups cannot offer them the high salaries they expect, and they can’t see the chances that their stock options will convert into cash. So they leave before that day comes. Most young people care about the working environment, salary, promotion, and development more than co-ownership of the company.”

A slow but gradual mindset shift seems underway due to a combination of these cost pressures along with a growing desire among millennials to follow their dreams.

2.3.2 Investor Perspective

To many investors, the Hong Kong startup ecosystem is still at an early stage of development: “There’s been a great start, but Hong Kong needs more of everything: more founders, more value-added capital and a more open immigration policy,” said Tytus Michalski, Managing Director at Fresco Capital.

Investors invariably agree that Hong Kong has a favorable business infrastructure. K O Chia, Director at Grace Financial and President of Hong Kong Venture Capital & Private Equity Association, sums it up: “Hong Kong has built up an ecosystem from infrastructure—from airport and air transportation links to efficient banking system and high speed telecom connectivity—and clear legal structures, to a vibrant capital market. It has been very innovative in operational efficiency. Therefore, inherently it already attracts people globally to do business. It also has a good infrastructure for doing global business. In terms of banking services, trade and financing, everything is here because this is a major financial hub.”

An investor based in mainland China added, “Hong Kong has a strong financial service industry; it is international and close to China. We also cooperated with overseas startups and introduced them to the Chinese market. We agreed that Hong Kong is more convenient with advantages in finances, logistics, and free flow of information, whereas there are limitations in China.”

A number of investors also share the sentiment of some entrepreneurs about Hong Kong’s role as the gateway to China, specifically that over the past 10 years there may have been too much emphasis on Hong Kong being a part of China. Michalski continues, “Of course being a gateway to China is helpful, but ultimately Hong Kong needs to be a global startup ecosystem taking advantage of its ability to bridge many cultures and worlds.

B2B startups currently seem to excite local VCs more than consumer-facing ones. In theory, Hong Kong will be a good place for B2B startups, but in reality investors report not seeing as many as they hoped. Michalski added: “Asia in general is still consumer focused, and a lot of funding is targeting e-commerce. We are actually more excited about the opportunities for technology to transform work, education and healthcare.”

There is a feeling that Hong Kong needs to develop a clearer positioning as a startup hub. Chia explains: “Hong Kong should recognize where its core competencies are. It should not try to do everything. There are not enough resources and talent. We need to focus on specific areas, for instance FinTech or service businesses using technology.”

Another investor, who has spent some time working in Singapore and is now currently based in Hong Kong, comments, “Hong Kong needs a clear positioning and the government should communicate better. Singapore is very good at marketing itself and making the support services available to startups known. We are missing a good integration in Hong Kong, which is very good in Singapore.”
Funding
As one of the most powerful financial centers in the world, investors agreed that there is no shortage of capital in the ecosystem of Hong Kong. Some even praised the investment infrastructure as a key benefit of Hong Kong.

However, despite its strong financial muscle, VC funding is low relative to top startup ecosystems, with most capital being invested in traditional sectors such as real estate. Due to a perceived lack of promising high-growth startups, most local VCs find themselves investing primarily in other ecosystems.

A VC partner explained “VCs may live in Hong Kong but then on Monday morning they are flying to Beijing.” He goes on to elaborate that a Hong Kong VC he previously worked at “made only one investment in a Hong Kong startup. The others were dispersed among China, some in Japan and in the United States.”

A mainland China investor argued that the funding gap cannot be blamed entirely on startup quality. To some extent he questioned the slow pace of the Hong Kong government in establishing a concerted initiative that oversees entrepreneurship and innovation policies. He continued, “The startup ecosystem is more welcoming in China, with much stronger government support.”

2.3.3 Other Perspectives
The Hong Kong Science and Technology Parks Corporation and Cyberport, two major ecosystem developers in Hong Kong, have been actively nurturing and promoting Hong Kong startups. Investments are increasingly coming to Hong Kong: For example, in 2013, Science Park recorded HK$30 million [US $3.9 million] of private investment in our community. Last year, the figure increased to HK$200 million [US $26 million]. The money is coming in from Hong Kong, mainland China and overseas. An local expert expressed that mainland China accounted for over 50% because startup valuations are very high in mainland China, motivating investors to look for deals in Hong Kong, where they can also find more ‘international’ startups.”

However, a local policy expert said “I think in general, [Hong Kong] startups are more narrow-minded. Singapore startups would at least think about the South East Asia market but Hong Kong ones think about the local market only. Scaling is therefore a great issue.”

On the other hand, Hong Kong’s world-class business services sector already supports some of the world’s largest startups and tech companies with their Asian activities. Yet Jo An Yee, Partner at Ernst & Young, adds “there is a need for Hong Kong executives and professionals to acquire a deeper understanding of tech businesses.”

Talent
As Chia points out, “Hong Kong has talented senior business managers that have worked for multinationals, but mostly have sales and marketing experience. However, there are business managers with more rounded experience, as in R&D or product management experience to build and scale businesses. This is a challenge common to many Asian countries, except perhaps China, Japan, Korea and Taiwan.

Chia continued: “The other challenge is commercialization of technology into viable products and services. This requires bringing together the technical talent and senior global business managers with entrepreneurial experience. One of the solutions is to have a more open policy, to be able to import the kind of talent to expand our talent pool with talent from all over the world. Singapore is trying to do this aggressively.”
Ecosystem Assessment
This section is dedicated to analyzing and benchmarking Hong Kong’s startup ecosystem against the world’s leading ecosystems. It builds on the voluminous research leading to the recent publication of the Global Startup Ecosystem Ranking 2015, a collaborative effort involving:

- Insights from over 200 interviews with entrepreneurs from 25 countries
- Data from 11,000 startup surveys completed from January to June 2015
- Insights from data and content partners from 10 countries including: CrunchBase, Global Entrepreneurship Week, Orb Intelligence, Dealroom, Deloitte, and many others, including incubators, accelerators, VCs, policymakers, and academics
- Support from Ron Berman at Wharton Business School; Dr. Thomas Funke from the German Federal Ministry for Economics; and Steve Blank, a Silicon Valley serial-entrepreneur and academian.

As can be seen by the statements in the previous sections, local experts are well aware of most challenges the ecosystem is currently facing. This section strives to go further into the identification of the relative strengths and weaknesses of the Hong Kong startup ecosystem from a global competitiveness perspective.

What Compass brings to the table is a wealth of data made from the combination of extensive proprietary and partner data, deep knowledge on the top 30+ global ecosystems, and years of experience in analyzing their relative strengths and weaknesses. Compass’ proprietary data includes additional primary and secondary research focused on Hong Kong and the ecosystems that are the object of the case studies, including more than two dozens interviews with entrepreneurs, investors, government officials, and other stakeholders of the Hong Kong startup ecosystem. These greatly contribute to the interpretation of quantitative results.

As established in the recently released Global Startup Ecosystem Ranking 2015, the following five components are essential when analyzing startup ecosystems: Ecosystem Performance and four Input Factors: Funding, Talent, Market Reach, and Startup Experience. A sixth component and fifth Input Factor, Policy, is also relevant, especially when assessing how ecosystem stakeholders can take action to further its growth, or as the case may be, remove barriers to growth. A detailed breakdown of the methodology can be found in the global report’s methodology section. The six components are defined as follows:

**Ecosystem Performance**
The Performance index is based on Ecosystem Value (sum of startup valuations at funding events and exits), the number of startups in the ecosystem (Startup Output), and startup performance measured by valuation growth over time.

**Funding**
The Funding index measures the availability of venture capital, as captured by the total amount of VC investments in an ecosystem, breakdown by type of round, average investment amounts by type of round, and the average time required to raise a funding round.

**Talent**
The Talent index consists of several variables measuring the quality, availability, and the cost of technical talent available to startup founders.

**Market Reach**
Market Reach is defined by the ability to access early customers in an ecosystem’s local and culturally similar markets, as well as the ability to grow globally.

**Startup Experience**
Startup Experience captures the experience generally available to startups in the ecosystem, in the form of experienced advisors, employees with prior experience in a startup, founders with experience in a hypergrowth startup, and the incentive compensation offered to and valued by employees.

**Policy**
This analysis is based on qualitative interviews with governmental and non-governmental leaders and research performed by CITIE, the public policy project of Nesta, Accenture, and Future Cities.

The performance of Hong Kong will be compared to a number of ecosystems: ones that share the Asian context (Singapore, and where possible, Kuala Lumpur); and other global and regional financial and economic centers such as New York and London. Singapore—as an internationally integrated ecosystem in the Maturity phase—may be useful in providing both a set of achievable long-term objectives and actionable policies adapted to the context of an Asian economic center. New York and London—successful ecosystems at the Maturity phase—are also internationally integrated and built on world financial centers with diverse economies, and are useful as benchmarks indicating healthy states of affairs at the individual metric level. All of these ecosystems have demonstrated outstanding competitiveness in the Global Startup Ecosystem Ranking 2015, with New York ranking #2, London #6, and Singapore #10.

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3.1 Performance and Lifecycle

Methodology

As discussed in the Global Startup Ecosystem Ranking 2015, when it comes to Ecosystem Performance, in general bigger is better. The Compass model showed a very positive relationship between the presence and quality of key resources in an ecosystem (e.g., Funding and Talent) and Ecosystem Performance. This makes intuitive sense and a few factors support this principle.

First, where there is limited time and money to attract top resources, the presence of a large pool of local resources makes it both easier and faster to secure those resources.

Secondly, a larger city has more consumers and business customers, making it easier for startups to connect with them, understand their needs, and attract them as customers and partners. It is also attractive to younger founders who like to have their living environment be as stimulating as their work. This explains the movement of startups from suburbs to city centers like London, New York, and San Francisco.

Thirdly, reinforcing this principle, the main stakeholders of a startup ecosystem—entrepreneurs, investors, and talent—decide where to locate their company based on indications of an abundance of resources and past successes. The analysis showed that the larger and more frequent the exits and funding events, and the higher the presence of capital and quality talent (both technical and non-technical), the more an ecosystem attracts entrepreneurs and investors from other locations. This behavior is further confirmed by expert interviews and past experience.

The performance of an ecosystem is therefore measured by the total value created by its startups and the number of startups it created—called “Ecosystem Value” and “Startup Output”, respectively. More specifically, Ecosystem Value is defined by the sum of its exit valuations ("Exit Value"), plus the sum of the valuations of all its pre-exit startups at their latest funding event between January 2013 and March 2015 (see Methodology for more details). While Exit Value is often considered a lagging performance indicator, the valuation of pre-exit startups clearly captures the ongoing performance of an ecosystem.

High valuations and large exits are also important because they are indicators of job creation. Quoting GERN (Global Entrepreneurship Research Network), “Entrepreneurship policy targets economic growth, and HGFs [High Growth Firms] over-deliver. HGFs have been found to disproportionately account for net job creation (>50%), even though they represent a small fraction of the active firms (<5%), a result proven in a variety of countries and settings.” George Foster, professor of management at Stanford University, found in his research that “among five-year-old firms, the top-performing 10% provide roughly 80% of gross revenue and job creation.”

3.1.1 Ecosystem Performance

Ecosystem Value

Hong Kong’s Ecosystem Value ranges between $2.8 billion and $3.5 billion—compared to $1.4 billion to $1.7 billion in Exit Value—and $1.5 billion to $1.8 billion in pre-exit startup valuations. As can be seen in Figures 4 and 5, these values are small in comparison to world-leading startup ecosystems such as Singapore, London, or New York. While Exit Value represents more than half that of Singapore, leading U.S. and European ecosystems are playing in another league: New York’s Exit Value is 9x higher and London’s is 24x.

Exit Value has a direct impact on the future performance of an ecosystem by acting as the number one trigger of attraction for angel investors, experienced management, and technical talent. It’s also important to note that after an exit, human resources are freed up, while capital is both freed up and multiplied. Therefore, due to the limited number of Hong Kong-based exits, much of their local angel investors’ capital remains tied up in older investments, reducing their ability—and motivation— to invest.

Figure 4. Ecosystem Value (in billion USD)

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3. See the Methodology section of Compass’ Global Startup Ecosystem Ranking 2015 at http://startupecosystem.compass.co/ser2015/


It is interesting to note that Hong Kong's Exit Value accounts for almost half of its Ecosystem Value, despite the fact that locally produced exits are rare. This is related to the small number of startups and their comparably low average valuations because of the high proportion of startups that fail before reaching later growth stages (see the Attrition Funnel in Section 3.2). Given that Hong Kong is in the Activation phase, as discussed in detail later in this section, this comes as no surprise. Startups would be well positioned to benefit from more exposure to international entrepreneurs and investors who went through the startup lifecycle from ideation to exit, and are willing and able to pass on insights. Enhanced exchange would allow startups to better validate their technologies, processes and any other aspect relevant to their business, thus increasing startup performance and valuations.

### Startup Performance

Another lens that can provide insights into an ecosystem's startup performance is how the valuation of its startups grows over time. Figure 6 shows the linear regression trend lines capturing the growth in startup funding valuations over time for selected ecosystems.

Looking at funding valuations of startups at year five, Silicon Valley's trend line has surpassed $175 million, as compared to slightly over $100 million for New York, and $80 million for Singapore. With an average valuation of less than $50 million until year seven, Hong Kong is far behind. At year seven, valuations in New York and Silicon Valley are already 3x higher and 5x higher, respectively. The following sections will investigate the root causes of this slower valuation growth.

### Startup Output

Ecosystem Startup Outputs, or number of tech startups in each ecosystem, were estimated with the help of 60+ partners and the local lists of startups provided by each ecosystem. This allowed for several estimations based on the mark-and-recapture statistical model, each using a pair of local lists, in addition to extrapolating and triangulating towards a good estimate using the lists of CrunchBase, AngelList, Dealroom, and sometimes local directories as the starting point.

The number of active tech startups for Hong Kong has been estimated at around 2,000 (Figure 7). This positions Hong Kong among the...
The largest ecosystems in the world, despite being 50% smaller than Singapore, 2x smaller than London, and 4x smaller than New York.

As the region has seen a steep rise in public and private initiatives geared toward technology entrepreneurship, this number will grow significantly in the course of the next five years. For instance, while Hong Kong was only home to three incubators and co-working spaces in 2010, this number had risen to over 40 by the end of 2015.

Growth Index

Hong Kong achieved a Growth Index of 3.0, thanks to a faster growth in number of startups and a close to 9x growth in exit value (based on a two-year moving average), and despite a 21% reduction in VC investments. This ranks Hong Kong as the 5th fastest-growing ecosystem with a Growth Index much higher than that of mature ecosystems like New York and Singapore (see Figure 8).

According to a study by Google and the Chinese University of Hong Kong (CUHK) Center for Entrepreneurship in 2014, the Hong Kong startup ecosystem has grown by 300% since 2009. In particular, the study highlights growth in startup hubs and accelerators, as well as funding providers and university support.

3.1.2 Ecosystem Lifecycle

According to Compass’ Ecosystem Lifecycle Model, Hong Kong’s Growth and Attraction Indexes place the ecosystem squarely in the Activation phase. At this phase, ecosystem stakeholders must give special priority to “Catch-Up” type activities. This means creating a level of interaction between local and global stakeholders—especially entrepreneurs and investors—to import up-to-date know-how. For Hong Kong, because of both its specific strengths and its weaknesses, this analysis (along with related recommendations to be covered in Section 5) takes primary importance above the core factors of Funding and Market Reach. This is because the negative effects of an ecosystem being at the Activation phase are pervasive, impacting every level of the startup performance from early to late stage, and are the root cause of many resource gaps.

Growth Index: The primary metrics used to measure an ecosystem’s growth are changes in VC investments and exit value, as well as the number of startups in earlier years; a lack of resources; normal business and market risks; as well as management errors such as premature scaling.

Attraction Index: This mainly captures an ecosystem’s ability to attract external resources—and, at an earlier stage, know-how from other ecosystems. This index’s primary metrics are:


7 For more information see Compass’ Startup Ecosystem Lifecycle Model at http://blog.startupcompass.co/startup-ecosystem-lifecycle-model
• The number of startups and larger tech companies that move their headquarters to the ecosystem
• The number of secondary offices opened by investors that are headquartered outside the ecosystem
• The number of entrepreneurs who moved to the ecosystem (note this metric has yet to be included in our data-driven model).
• Secondary metrics, which mainly capture attraction of know-how in the form of expertise and experience from stakeholders external to the ecosystem, are:
  • The number of secondary offices opened by startups and larger tech companies that are headquartered outside the ecosystem
  • Interactions between local and outside stakeholders (entrepreneurs, investors, talent, accelerators and incubators, institutions of higher education, and policymakers)
• Outside venture investors regularly coming to the ecosystem to look for investment opportunities and actually investing
• The percentage of investments made in local startups by local venture investors.

The last three metrics are based on interviews and anecdotal evidence.

Hong Kong’s Status

Under the Attraction Index, data shows that very few startups have moved to Hong Kong from other ecosystems. It is not surprising, considering that Hong Kong has not produced enough exciting exits and unicorns for international entrepreneurs to choose to relocate to Hong Kong because of the intrinsic value of its startup ecosystem. Throughout expert interviews there was only one mention of a startup relocating to Hong Kong, and none of entrepreneurs moving to the city for the purpose of starting a tech startup.

Hong Kong counts more than a dozen satellite offices of international venture investors, an impressive number for a medium-sized ecosystem. However, a deeper analysis reveals that most of these offices were opened ten years ago or before, with several of them being the venture group of a large corporation, often in the media space. Very few Chinese and international VC firms have opened an office in Hong Kong in the last few years. Their presence is overwhelmingly due to the historical preference for Hong Kong as a great location for the Asian office of Western financial entities rather than because of its attractive local startup ecosystem. Investors interviewed mentioned using the office as a central location from which to regularly visit Chinese ecosystems, Singapore, and occasionally other Asian locations. This is not the type of activity that indicates international integration or Attraction.

Examining secondary metrics that capture “Attraction of Know-How”, the data shows Hong Kong has seen only a few international tech companies open a secondary office in the city, underlining the lack of international Attraction of the ecosystem.

Interviews also highlighted the fact that the Hong Kong ecosystem is considered to be at an early stage of development. Chinese and Singapore investors do not typically visit Hong Kong in search of investment opportunities in tech startups; their regular circuit includes Singapore, Beijing, Shanghai, and a few other cities. None of these internationally active Asian investors, whether angel or VC firms, recalled even getting a face-to-face pitch by a Hong Kong startup. Infocomn and Infocomm Investments, which counts startups with origins throughout Asia, did not have a Hong Kong startup as part of their accelerator program nor portfolio. For the same reasons Hong Kong-based VCs also invest mostly in startups based in other ecosystems.

International entrepreneurs offered the same perspective. While they could name one or two Hong Kong startups, none had interacted with an entrepreneur from Hong Kong. Clearly the level of interaction between Hong Kong entrepreneurs and stakeholders (investors and entrepreneurs) from other ecosystems is very low.

Combined with a healthy Growth Index, all these indicators point to the same direction: Hong Kong scores low on the Attraction Index and is clearly in the Activation phase of the startup ecosystem lifecycle.

Implications of Activation Phase

In this phase, the challenges an ecosystem must work toward solving are not only specific resource issues such as Funding and Market Reach. The core objective is “Catch Up Growth”, meaning local stakeholders (investors, entrepreneurs, talent, and others) attract global know-how through interactions with stakeholders from the world’s best ecosystems. During this phase, local stakeholders increasingly learn and use global best practices specific to tech startups, such as Silicon Valley-style venture financing and Steve Blank’s Customer Development methodology. Perhaps more importantly for Hong Kong, they also learn and become up to date on emerging business models and current global business opportunities.

Ecosystems at the Activation phase also wrestle with a chronic lack of tech entrepreneurship. Firstly, because it is a relatively recent phenomenon so there is neither family nor cultural tradition around this career path, and secondly, because by definition
such ecosystems have not yet produced the successful exits that drive young talent to join the global startup revolution.

Success stories from early-stage ecosystems are overrepresented by “me-too startups” that copy the successful business models of global tech companies. As an ecosystem transcends that stage and its increasingly successful entrepreneurs and investors interact and later integrate with international ones through the presence of international offices and travel circuits going in both directions, the local ecosystem develops a sense for what the most innovative business models are, as well as what are global business problems and market opportunities.

Investors located in Hong Kong and other Asian ecosystems, as well as international entrepreneurs, expressed how Hong Kong startups were mostly focused on local opportunities and that their business models were rarely innovative from a global perspective.

The lack of interaction between Hong Kong entrepreneurs and international investors and entrepreneurs leads to them having no visibility on global business models and market opportunities until those become public knowledge, at which point they no longer present meaningful opportunities for an early-stage startup. As explained in the Ecosystem Lifecycle Model, startups achieve rapid growth and success by focusing on global customers in their search for product/market fit. Conversely, startups that are locally focused grow at less than half the speed of globally-focused startups and overwhelmingly fail to deserve Series B, C and later-stage funding. This is the case in Hong Kong (see Funding section) and it is a sign that an ecosystem’s startups do not attack the large, global market opportunities that both justify and require large amounts of growth capital.

While Hong Kong entrepreneurs and talent need to catch up to global know-how, Hong Kong investors do not. Hong Kong’s historical position as a leading international financial center has attracted massive amounts of capital and investors to the city, including experienced institutional venture investors. For this reason, the analysis of local Series A and B funding showed little-to-no gap. These local and foreign-based firms actively invest in top ecosystems such as Beijing and Singapore and are therefore internationally integrated with global stakeholders. This has led them to stay up-to-date on global know-how and have the skills necessary to skillfully assess startups and scale to write large checks at competing valuations (see Funding section).

As discussed above, all of them interact with investors and entrepreneurs from international ecosystems on a weekly basis. This is a rare attribute for an early startup ecosystem and confers a real advantage to Hong Kong. As the funding section will explain, investors apply the globally accepted structures and amounts to startup financing. They know the capital required for a start up to accelerate and succeed globally. The lack of such success again points to the lack of globally-competitive innovations developed by Hong Kong startups.

In conclusion, Hong Kong must focus on Catch Up Growth activities, especially for its entrepreneur community, and also for its technical talent. This is the path to higher startup performance, faster valuation growth, and a higher rate of successful exits and unicorns. The recommendation section will discuss how to support its entrepreneurs so they catch up to global ecosystems.

3.2 Funding

From a global ranking perspective, Hong Kong ranks among the top 30 ecosystems in the world. Its venture capital investments of $160 million ranked #31, while its time-to-raise was slightly longer than average, ranking among the top 25.

The purpose of this section is to answer the key questions of whether startups have access to the right amount of funding at the right time and cost (dilution) at each stage of a startup’s development.

Growth in VC Investments

According to Preqin, from 2013 to 2014 venture capital investments in Hong Kong slid 21%, to about $124 million. Combined with Singapore’s and Sydney’s 5% and 23% reductions, respectively, this seems to reflect a regional contraction of venture capital investments in the region. The 97% increase in VC investments in other top 20 ecosystems (excluding Singapore and Sydney) show the need for rapidly reversing this regional pattern if the Hong Kong startup ecosystem is to catch up and carve a top global position for itself.

Amount of Early-Stage Funding per Startup

Another broad indicator that can indicate a general gap in funding is the sum of seed, Series A, and B investments—those that greatly depend on local investors—divided by the total number of startups in the ecosystem. The numbers are adjusted to correct for the different penetration of our data sources in each ecosystem and for oversized rounds. Hong Kong has about $80,000 in early-stage funding per startup, compared to $182,000 for Singapore.

8 For more information see Compass’ Startup Ecosystem Lifecycle Model at http://blog.startupcompass.co/startup-ecosystem-lifecycle-model
9 Preqin LTD (2015)
$80,000 for Toronto, $59,000 for Vancouver, $200,000 for London, and $340,000 for New York (Figure 9). This suggests Hong Kong has a significant early-stage funding gap.

**Distribution of Venture Investments by Round**

Looking at the distribution of VC investments across funding rounds from seed to Series D+, it is noticeable that Hong Kong has a much lower proportion of capital invested in later, growth stages. Figure 10 clearly shows that due to a lack of series C and later rounds of funding, most of Hong Kong’s VC dollars are funneled into seed and Series A rounds. This should not be interpreted as meaning that Hong Kong enjoys a high level of early-stage capital. As Figure 11 shows, by number of deals, Hong Kong has a normal proportion of Series A rounds. It does have a higher number of seed rounds than other ecosystems (sum of accelerator and seed
rounds), however when they are split between small-size accelerator rounds (<$50,000) and larger rounds it is clear that Hong Kong has a higher proportion of small seed or accelerator-type rounds. Note that the data for Singapore was adjusted by adjusting an uncharacteristic $60 million Series B financing to the average so the distribution would be less skewed by that rare single event before comparison with other ecosystems.

Local venture capital markets are a critical factor from Seed to Series B. For Series C and later, venture capital firms from all over the world compete to invest in the best performing startups as they grow closer and closer to an exit.

For this reason, the low proportion of Series C and D+ rounds in the Hong Kong ecosystems indicates a lack of startups reaching those rounds, suggesting an issue with successful scaling rather than a local funding gap.

Focusing on the distribution of capital from rounds seed to Series B, while figure 12 shows a lower proportion of capital going to Series B, figure 13 seems to indicate that the distribution by number of deals is proportionally normal, but starting with a lower proportion of "normal seed" events. This issue will become clearer when benchmarking funding amounts and attrition funnel.

Interestingly, Singapore shows a somewhat opposite distribution with a much higher proportion of capital and number of rounds going to Series B rounds. In addition to confirming the healthy capital market for Series B in Singapore, this may be explained by the migration of successful startups from other Southeast Asia countries to Singapore to secure growth capital. This migration is also supported by the regular requests made by Singapore VCs for startups to open an office or move to Singapore as a condition to funding.
Coming back to Hong Kong, the lower proportion of capital going to Series B accounts for the relatively larger proportion of capital going to seed and Series A rounds. The breakdown of seed rounds into small, accelerator-type rounds and normal angel rounds clearly show that Hong Kong startups do not benefit from more seed funding but rather from more accelerator-size rounds which are typically below $50,000.

### Seed Funding Amounts

Excluding accelerator and small seed rounds, the average and median amounts for “normal seed” rounds in the Hong Kong startup ecosystem are both around $500,000 (Figure 14). While the average is lower than in most comparable ecosystems, the median is equal or higher than all of them except New York City. This suggests that seed amounts are sufficient and internationally competitive.

### Series A Funding Amounts

Both average and median Series A funding amounts for Hong Kong are equal or above other comparable ecosystems at $8.8 million and $5.5 million, respectively (Figure 15). As for seed funding amounts, Series A amounts are sufficient and internationally competitive, this time even with the U.S. In fact, both New York City’s average and median Series A amounts are slightly lower than Hong Kong’s, with respectively $8.2 million and $4.5 million.

There are several reasons for this. First, Hong Kong’s historical position as a leading international financial center has brought massive amounts of capital and investors—including experienced institutional venture investors—to the city. For this reason,

Note that average figures differ from the ones published in the Global Startup Ecosystem Report due to the addition of new data sources.

### Series B Funding Amounts

While average series B funding amounts in Hong Kong are lower than in comparable ecosystems, the median is higher than most (Figure 16). Combined with the small number of such funding events in Hong Kong, Singapore, and Toronto, the difference cannot be considered statistically significant.
Proportion of Startups Receiving Funding
The combination of lower early-stage funding per startup and similar funding amounts for each round points to a problem with the number of startups getting funded at each stage. Figures 17 and 18 confirm the issue. 27% to 36% fewer startups get seed funded than in comparable ecosystems. Worse, when small, incubator-size seed rounds are excluded, the data shows that about 55% fewer Hong Kong startups get access to a “normal seed” round than in Singapore, London, and New York (and 65% fewer than in Silicon Valley). This strongly suggests the presence of a local funding gap at the seed stage. However, as explained in the Performance section (Section 3.1), the lack of international integration, and relatedly, of globally competitive business models and entrepreneurs in the ecosystem also contributes to this lower rate of startups funded by private investors.

Figures 17 and 18 also show lower proportions of startups obtain Series A and Series B funding. About 75% fewer Hong Kong startups obtain Series A and Series B funding than do in New York, Singapore, and London. However, because funding amounts are competitive and the presence of many active, deep-pocketed institutional venture investors in Hong Kong who customarily fund startups in neighboring ecosystems, rather than constituting a Series A Funding gap, this problem is considered to be due to a lack of high-potential startups with globally competitive business models. This issue is intrinsic to ecosystems at the Activation phase, as discussed in the Ecosystem Lifecycle section (Section 3.1).

Figure 19 normalizes this data around the number of “normal seed” funded companies to highlight the degree to which a lower rate of Hong Kong startups reached Series A, B, and C in 2014 (note that this is not a cohort analysis). This allows a clearer view of the steeper attrition rate existing in the Hong Kong startup ecosystem. While the attrition rate is much higher from “normal
seed" to Series A, by Series B the attrition is similar to London, a top ranked ecosystem. Not surprisingly, New York, ranked #2 in the Global Startup Ecosystem Ranking 2015, ends with the highest proportion of Series C to “normal seed” rounds.

Dilution
No statistically significant variation was found when examining dilution rates to see if Hong Kong startups received lower valuations in proportion to the amount invested in each round. This is in line with Compass’ Global Startup Ecosystem Ranking 2015, which showed that dilution rates vary little across ecosystems and continents. This suggests that, in general, global investors apply the model of Silicon Valley.

Time to Raise
Based on the Compass global survey, Hong Kong ranks slightly below average in terms of time to raise a funding round. However this is not considered to be a problem because of the relatively small variations between ecosystems.

Conclusion
The Hong Kong startup ecosystem suffers from a severe local Funding gap at the seed level. More specifically, the proportion of Hong Kong startups obtaining “normal seed” funding is less than half that of top ecosystems. The fact that average funding amounts are internationally competitive suggests the causes are too few active angel investors and, as discussed in the Ecosystem Lifecycle section (section 3.1.2), a lack of global-level know-how among its local entrepreneurs and talent, translating into a lack of startups with global potential.

This seed funding gap has a variety of negative direct and indirect consequences on an ecosystem, such as cutting by half the size of the ecosystem, affecting the number of exits, and most likely, reducing serial entrepreneurship. Because so many first-time founders fail at closing a seed round, most—if not all of them—focus next on finding a good paying job rather than try again. The lower average age of Hong Kong founders suggests this is, in fact, an issue (see Figure 2).

The Hong Kong ecosystem does not have a Funding gap with regards to Series A, B, C and later funding rounds. As highlighted by interviews and this analysis, the lack of high-potential startups is considered to be the primary cause of the higher attrition rates from Series A to later rounds. This conclusion is also supported by the fact that the Hong Kong institutional investor community is not only large and well-funded but also up-to-date on global know-how (see section 3.1.2). On the other hand, the lack of global know-how among local entrepreneurs, an intrinsic characteristic of ecosystems at the Activation phase, results in a lack of startups competing for global opportunities and qualifying for Series C and D rounds.

Without the insights provided by the Ecosystem Lifecycle Model, local stakeholders and policymaker often wrongly analyze that the lack of late-stage funding events is due to a lack of late-stage capital at the local level. They may waste energy and money trying to create late-stage funds, which would soon be forced to invest in lower potential local startups to justify their existence, inevitably generating sub-par returns leading to their failure.
3.3 Market Reach

After Funding, the most important Input Factor affecting an ecosystem's performance is Market Reach. The Market Reach factor captures the ability of startups to grow, defined by the increase of active users, paying customers and/or revenue. Both research and quantitative modeling work have shown that the two key sub-factors are a) Local Market Reach—the size of the local economy and cultural markets a startup has access to, and b) Global Market Reach—its ability to "go global" by growing beyond its national borders.

By extension, the assessment of issues that directly impact the rate or speed of revenue growth are assessed within this section. Why is revenue growth rate so important? As discussed in the Performance section, research shows that "High Growth Firms (HGFs) disproportionately account for net job creation (>50%), even though they represent a small fraction of the active firms (<5%)," and that "among five-year-old firms, the top performing 10% provide roughly 80% of gross revenue and job creation".  

For later stage startups past Series B, Market Reach is the most important factor influencing their performance. And by deduction, because issues related to Local Market Reach cannot be "solved", Global Market Reach is their most important actionable factor.

The Global Startup Ecosystem Ranking positioned Hong Kong’s Market Reach score among the top 10 startup ecosystems based on its startups’ high percentage of foreign customers and its large Cultural Market Size, which included the Chinese economy. However, the latter, an objective metric, does not capture the important cultural differences that exist between Hong Kong and mainland China, and the institutional issues separating the two markets. Taking these into account, Hong Kong scores significantly lower.

Local Market Reach

Within Local Market Reach, both local and cultural market sizes are important because they indicate the size and scaling potential of those markets that startups have easiest access to. An ecosystem’s cultural markets include its local country, as well as areas with a common language where startups face relatively lower customer acquisition challenges due to language similarities in work and personal culture, ease of understanding needs, and much more.

Due to a strong economy and immediate proximity to mainland China—the largest national economy in the world—Hong Kong’s Local Market Reach compares to the level of the top 15 startup ecosystems.  

Embedded in one of the Asian economic powerhouses, the local market of Hong Kong is certainly interesting. Hong Kong’s service-oriented economy—centered around low taxation, liberal trade policies, and its international financial market—produces a significantly higher annual GDP than metropolises such as Sydney, Australia or Toronto, Canada, and $23 billion higher than Singapore’s (see Figure 20). This can be seen as a good starting point for growth efforts as long as startups do not make the mistake of relying on a large local market rather than prioritizing global customers.

When it comes to consumer-facing startups, Hong Kong can be seen as an interesting testing ground. When adjusted by purchasing power parity (PPP), Hong Kong’s GDP per capita, with $53,000, is one of the strongest in the APAC region (China’s GDP per capita hovers at around $12,000, Singapore at $79,000). Hong Kong citizens are also considered tech savvy.

B2B startups face a mixed reception. While some interviewees highlighted an amazing degree of openness and rapidity with which to close a deal with startups, others described long struggles with finding business customers that are open to new technologies and ready to collaborate with startups as lead customers towards achieving product/market.

14 For more information see Compass’ The Global Startup Ecosystem Ranking 2015 at http://startup-ecosystem.compass.co/ser2015/
Also, the public sector has been criticized for its perceived lack of interest and commitment to work with startups and adopt innovations. However, recent developments outline a gradual mindset shift, as quasi-government institutes (e.g. HK Science and Technology Parks and the Mass Transit Railway) are reviewing and updating their procurement policies.

Most recently, the Hong Kong International Airport Authority announced its openness for collaboration with startups and technology adoption. Its "Technovation Board" works closely with local universities and other R&D centers to become an incubating platform for the local technology industry to explore new ideas and innovative solutions.

Cultural Market Size
China is considered part of Hong Kong’s cultural market, based on Compass’ objective criteria of shared language and border, which act as a proxy for relatively easier market access. However, this does not accurately capture the reality startups face on the ground. In practice mainland China’s consumers and business customers have different needs and behave very differently from Hong Kong’s. It is a misperception that Hong Kong can be an entry point from which international startups can effectively enter the Chinese consumer or business market. This place is now squarely occupied by Shanghai.

Consequently, Hong Kong startups most often focus their growth efforts towards South East Asia and the U.S. rather than China.

Global Market Reach
The Global Market Reach captures an ecosystem’s ability to attack and penetrate global customers. As explained in the Waterloo Startup Ecosystem Report16 a strong inverse correlation exist between Local Market Reach and Global Market Reach, and between their primary components: the size of the local and cultural markets and the percentage of foreign customers captured by startups.

Considering this relationship and Hong Kong’s relatively small economy—and its challenges with penetrating the Chinese market—it is not surprising that Hong Kong’s startup ecosystem ranks among the top 10 startups ecosystems in Global Market Reach score.

Penetrating foreign markets also require sales and marketing talent with global expertise or experience. Compared to other Activation phase ecosystems, this is a relative strength of Hong Kong. It has long been an important international trading center, and not so long ago a leading one. This accounts for the significant presence of sales and marketing people with international expertise—a type of resource that Activation phase ecosystems can rarely count on. This at least partially explains Hong Kong’s relatively high score in Global Market Reach, with a high percentage of foreign customers achieved by its startups at an early-stage. However, there may still be a need for some level of global Catch Up for this skilled local talent pool considering the fact that executing growth in a startup is significantly different from traditional sales and marketing.

Hong Kong also enjoys a strong representation of students from South East Asia and China within the university system, and an increasing amount of business students from Europe and the U.S. are coming to Hong Kong to do their degree because it is seen as a bridge to Asia. While this talent pool has little experience in tech startups (see the Startup Experience section), the availability of non-technical talent with global experience will, over time, have a very positive impact on the startup ecosystem.

Percentage of Foreign Customers
Because of its small local market, Hong Kong startups are encouraged to go global from day one, a behavior that has very positive consequences for an ecosystem’s performance. In addition, due to Hong Kong’s historic position as an international trade center, sales, marketing, and business development employees with expertise in international markets (and often educated in the very country a startup choses to target) are available locally, which is a rare asset for an ecosystem.

Figure 21 shows that early-stage startups in Hong Kong have a considerably higher proportion of foreign customers (61%) than Singapore, Kuala Lumpur, London, New York, and Silicon Valley.

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16 For more information see section 4.3 of the Startup Ecosystem Report on Waterloo, Canada at http://startup-ecosystem.compass.co/ser2015/Waterloo
compared ecosystems. It is in fact higher than that in any of the top 20 ecosystems, except Tel Aviv (74%). Also with a smaller local market size, Singapore startups have 49% of foreign customers.

Chow Shing Yuk, Founder and CEO at EasyVan, underlines why international growth is important for Hong Kong-based startups: “One thing that I’ve learned is that when you start a startup in Hong Kong, you’ve got to think of more than just Hong Kong. You don’t build a startup for a population of 7 million, and Hong Kong being unique means it’s harder to make what works here work elsewhere.”

However, as demonstrated by the scarcity of Series C and D funding events in the last few years, Hong Kong startups entrepreneurs and teams have yet to build the tech-specific global know-how required to develop globally leading products and business models, and capture global market opportunities.

Number of Product Languages
The analysis of product languages offered, which is another sub-indicator measuring global orientation, underlines the comparably strong international outreach of Hong Kong-based startups. On average, Hong Kong startups offer their products in 2.3 languages, which is equal to London and slightly above Silicon Valley (Figure 22). All other ecosystems in scope, including Singapore (1.8), come in considerably lower.

Foreign Offices
The percentage of early-stage startups with an office in a foreign country is a proxy for the degree to which startups in certain ecosystems focus on attacking global customers. 11% of Hong Kong startups have an office in another country. This is low when put in perspective with Singapore and Tel Aviv, other ecosystems with small local markets, respectively with 22% and 15% (the latter being most likely underestimated).

Global Reach Opportunity Metrics
While not being strong indicators of a startup’s ability to go global, the following metrics indicate relatively higher or lower opportunities to do so.

Percentage of Foreign Employees: This metric is not a strong indicator of a startup’s ability to go global, but it presents an opportunity that’s possibly helpful in providing relationships to customers and partners, language skills, and an understanding
of global needs. With an average ratio of 38%, Hong Kong-based startups employ roughly 10% more foreign employees than the global average. However, the comparison with other ecosystems suggests that Hong Kong would benefit from further internationalizing its workforce. Comparable non-U.S. financial centers, such as Singapore and London, all have higher percentages of foreign employees working in local startups, with a range of 44% to 53%. Being the world’s number one melting pot of cultures and ethnicities, the relatively low ratio for New York can be partially explained by the high influx of immigrants that acquire U.S. citizenship. Given the obstacles described in the Talent section (section 3.4), additional attraction of foreign talent should be promoted.

Percentage of Funding Rounds including at least one Foreign Investor: (see Section 4.2, Figure 24). Besides its implications around Funding (discussed in section 3.2) this metric may indicate an opportunity for startups to go global through its foreign investors, as they place a startup one degree of separation away from foreign customers, senior sales and marketing executives, and advisors. 31% of Hong Kong’s funding rounds include a foreign investor, compared to 47% for London and 33% for Singapore, two internationally integrated ecosystems. Given the earlier lifecycle phase of the Hong Kong ecosystem (Activation), the percentage of foreign investors for Hong Kong is considered fairly high and offers a real opportunity for its startups to go global.

Conclusion
Hong Kong’s long-held position as a global trading center has led to the development of global sales and marketing expertise among its local workforce along with a set of other positive attributes for the development of global sales and marketing expertise among its local workforce along with a set of other positive attributes for Hong Kong’s long-held position as a global trading center has led to the development of global sales and marketing expertise among its local workforce along with a set of other positive attributes for

3.4 Talent

Overall Ranking
Hong Kong scored among the top 10 in Talent in Compass’ Global Startup Ecosystem Ranking 2015, with credit largely due to the high rating of Chinese technical talent. However, the deeper analysis of the ecosystem data and additional interviews of experts in Hong Kong and China has clarified that China’s top-rating in technical talent is linked to mainland China and that Hong Kong startups have been experiencing major difficulties with hiring mainland Chinese talent.

Talent Quality
Hong Kong is home to a number of post secondary education institutions. The Hong Kong University of Science and Technology, The University of Hong Kong, and the Chinese University of Hong Kong respectively ranked 28th, 30th, and 51st globally18.

Unfortunately, while these institutions are of high quality, top Hong Kong students favor professional and business degrees because they give access to stable positions at large corporations. Additionally, the risk-averse culture of the population and lack of entrepreneurial spirit leads the best graduates to favor safer corporate positions over high-intensity jobs at startups with lower salaries, but potentially higher upsides.

Charles Ng, Assistant Director General at InvestHK, explains, “there is a mindset gap in Hong Kong. Parents and grandparents of graduates are not encouraging them to do entrepreneurship. There remains a great deal of prestige in working for a renown corporation or a big bank and a large fear factor around failure that is ingrained into the Asian/Hong Kong mentality. That is something you don’t find in Silicon Valley, New York, and London. A large majority of people in Hong Kong and the society in general embrace the notion of failure is not acceptable. This mindset needs to change.”

For these reasons experts consider that Hong Kong startups have access to lower average quality talent than startups in top ecosystems.

There could be a shift happening. Po Chi Wu, Vice Chairman of Invotech and Adjunct Professor at Hong Kong University of Science and Technology, noted that more and more of his students are becoming interested in entrepreneurship, and are disillusioned with the old economy.

Because mainland China has some of the highest quality technical talent in the world (ranked #2 by TopCoder)19, gaining access to that talent through improved immigration policies could have a significant impact on Hong Kong’s startup ecosystem.

Interviews with mainland China entrepreneurs residing in Hong Kong have mentioned having tried to recruit talents to Hong Kong through the Talent Admission Scheme, but have encountered difficulties. They do not think that the issue was caused by the Mainland.


Talent Availability
The overall consensus from entrepreneurs regarding availability is that finding software developers who are willing to work at a startup is a real challenge.

Figure 25 shows hiring is more difficult in Asian ecosystems than in London and Silicon Valley, while New York City startups face even more problem.

Talent Cost
Software engineering salaries in Hong Kong are similar to those in Singapore but much lower than in top U.S. and European ecosystems (Figure 26). It is worth noting however that talent cost does not directly correlate with the performance of startups. However, combined with the fact that funding amounts are globally competitive (see Funding section), this gives Hong Kong startups the opportunity to compensate for average quality technical talent—which usually translates into lower productivity—by building relatively larger technical teams. However, larger teams are not usually as productive as small teams made of top quality developers.

Conclusion
Overall, Hong Kong startups face several challenges with regards to talent. They take longer to hire and have access to lower-than-average quality talent due to top candidates favoring larger employers. In addition—and as will be discussed in the Startup Experience section—a relatively low proportion of these employees have prior experience in a startup. The combination of those factors places Hong Kong at a disadvantage even after considering the lower local salaries.

3.5 Startup Experience

Startup Experience measures the level of experience of those stakeholders that are key in a startup’s search for a scalable and repeatable business model: founders, their employees, and advisors.

In comparison with other ecosystems examined in the Global Startup Ecosystem Ranking 2015, stakeholders in Hong Kong are still inexperienced when it comes to working with startups. In particular, the number and qualification of advisors, as well as the level of employees with prior startup experience is well below global averages. While Hong Kong ranked within the world’s top 20 in Compass’ Startup Experience Index, this is an important issue closely related to the lack of international integration of the Hong Kong ecosystem (see Ecosystem Lifecycle in Section 3.1).

Founders with Hypergrowth Experience
Although Hong Kong-based founders are, on average, fairly young (30.4 years), a respectable share of 14% has already gained experience in hypergrowth tech companies (Figure 27). This proportion is only slightly below New York (18%) and higher than Singapore (10%).
worked in a secondary sales and marketing office of an overseas startup—rather than in the headquarter from the beginning of hypergrowth—for the development or product management team. For these reasons, Hong Kong's hypergrowth experience may bring relatively less valuable know-how to the ecosystem.

**Startups with an Employee Stock Option Program**

Issuing stock options to employees is a factor linked to Startup Performance by Compass’ Startup Genome research. It demonstrates the experience and knowledge of founders in terms of key elements influencing their success, and the degree of “startup culture” in the ecosystem. The fact is that if employees do not believe in the upside offered by stock options, there is no reason for a startup to offer them.

52% of Hong Kong startups have issued options to their employees, a competitive proportion that is slightly higher than the global average (see Figure 28). This may help as startup founders encounter issues around attracting and retaining the talent they need to thrive in an ecosystem with high salaries and a culture that does not value risk-taking and entrepreneurship.

A local founder explained, “My personal experience: when I started hiring, options were perceived as funny money because it was not common practice nor talked about in school. What I did was to give more cash bonus. I use that as a performance motivation. I pay out cash quarterly. Over time, I was able to educate them on the value of stock option and they came to realize, if I spend time working at a startup, I should become an owner. Also, once they hit a certain level of seniority, they want options.”

**Employees with Prior Startup Experience**

As opposed to entrepreneurs themselves, only a minority of employees in Hong Kong have gained prior startup experience (Figure 29). Given the ecosystem is in the Activation lifecycle phase, this comes as no surprise. Most ecosystems that have reached the maturity phase have already produced more than one generation of successful tech startups, resulting in tech engineers and other employees having worked in more than one startup.

For regions with dominant industries in other areas such as finance (e.g. Singapore, London, and New York), the early development of a startup ecosystem depends on success stories to initiate a cultural shift. For a few years now, it has become “trendy with the millenials to work for a tech startup,” said Alberto Escalarte, Partner at the New York-based Collaborative Fund. "No one wants..."
to think about long careers at large companies for life. You don’t ask what your job is. You ask what projects you are working on,” he said. As a result of this gradual but ongoing trend, the percentage of experienced employees in New York is now almost twice as high as in Hong Kong. The experience levels in Silicon Valley and Sydney—also relatively older ecosystems—are only slightly lower, with 48% and 46%, respectively. Singapore and London demonstrate greater startup experience as well, whereas Kuala Lumpur, for example, is very similar to Hong Kong.

As a study by Google and the Chinese University of Hong Kong’s

and friends, which clearly affects overall Startup Experience and Startup Output in a negative way. This is in stark contrast to entrepreneurial cultures around the world, for example, as in Israel. “In Israel, if you come with a big company’s logo, your parents will ask you why you haven’t started your own company. The dream in Israel is innovation—it’s to build a successful company. If you aren’t running your own company, it’s because you haven’t found the right idea yet,” said Amir Shevat, Director of Developer Relations at Slack, formerly Global Startup Outreach Program Manager at Google.

Figure 30. Number of Advisors with Equity

Number of Advisors with Equity
Compass’ Startup Genome Project confirmed the importance for a founder to have experienced and reliable advisors. The report further identified a good marker of success as to whether stock options have been granted—this is an indication that the advisor has real interest in the startup’s success and will offer formal advice on a regular basis (rather than informally and intermittently), including delivering tough messages to the founder if appropriate.

Hong Kong startups engage, on average, with 1.05 mentors who hold equity in the respective venture—a value that is only slightly below the global average. Figure 30 shows that top 5 ecosystems have higher values, as startups within the two most mature ecosystems in the world have, on average, almost two advisors with equity. London is an exception which may reflect different compensation structures rather than the lack of experienced advisors.

Hong Kong interviewees confirmed that this problem is to a great extent based on a scarcity of seasoned tech advisors, rather than on startups being reluctant to work with and compensate advisors. Gene Soo, Director and Co-founder of StartupsHK, says Hong Kong lacks people with real world startup experience. “There are lot of people with advice but they haven’t really been there done that,” he says.

Hilary Szymujko, Head of Program at Brinc, adds “there are not many mentors who have run a successful startup or even a failed one … [nor] who understand the technical skills required for startups.”

Conclusion
Startup Experience is a factor that improves slowly with the number and size of exits as the ecosystem matures. Being an early-stage ecosystem at the Activation phase it is not surprising that Hong Kong has a low level of Startup Experience.

3.6 Policy
3.6.1 City Policy
By David Altabev, Senior Programme Manager, Government Innovation, Nesta

The 2015 CITIE report, which stands for City Initiatives for Technology, Innovation, and Entrepreneurship, assessed 40 city governments from around the world against their policy framework. It provides city policymakers with a resource to help them develop the policy initiatives that catalyze innovation and entrepreneurship.

A city government’s performance is represented by its CITIE profile, and performance against each of the nine policy roles. There is no single pathway to success. The CITIE profile captures the relative strengths and weaknesses of a city government’s policy environment to support innovation and entrepreneurship, and provides a tool to understand priority areas for development, highlighting best practice from around the world.

Figure 31 illustrates Hong Kong’s performance against the nine policy roles under the CITIE framework.

In the CITIE analysis, Hong Kong falls within the third quartile of the analysis—the Builders peer group, alongside Bogotá, Brussels, Melbourne, Moscow, Sao Paolo, Sydney, Tallinn, Tokyo, Vancouver, and Vienna.

Builder cities are defined as those that have begun to actively incorporate innovation and entrepreneurship into their municipal policy development. These cities are in a stage of rapid transition, and many are building the capacity they need to promote innovation. Typically, this first manifests itself in policy roles that have direct contact with local businesses, such as advocacy on behalf of new businesses trumpeting their success and the potential of the city to the world. For example, Hong Kong has initiated StartmeupHK, a global competition for high-impact, innovative and scalable ventures whose founders aim to expand their businesses from Hong Kong.

Against its Builder peers, Hong Kong’s dedicated digital team and digital strategy see it leading in the City as Strategist policy role, which asked the question, “Has the city set a clear direction and built the internal capacity required to support innovation?” Hong Kong is in the company of Amsterdam, Barcelona, Chicago, Helsinki, New York City, Seoul, and Tel Aviv in this category.

However, across the eight other CITIE policy roles, Hong Kong ranks in Tier 2 for Advocate and Investor, and Tiers 3 and 4 for the rest, demonstrating that it is behind its global peers, with plenty of opportunity to develop specific policy initiatives to support innovation and entrepreneurship.

In City as Regulator which asks, “How does the city regulate business models in a way that allows for disruptive entry?” Hong Kong has yet to update regulations to accommodate either the ride-sharing or short-term rental industry. High-performing cities are taking an active approach to supporting disruptive innovation by consulting with affected stakeholder groups to update regulatory regimes and laws.

In City as Customer, it has been observed how Hong Kong has simplified its procurement process through a single portal and reduced the administrative burden of extensive pre-qualifying requirements, a welcome step for SMEs who lack the resources to manage complex procurement processes. However, it has yet to embrace challenge-based procurement methods as a form of solving city problems.

In this regard the city should look to the Hong Kong International Airport (HKIA) Technovation Board. The AAHK Technovation Board drives the strategic key direction for HKIA’s technology and innovation development, and has created the HKIA Innovation Centre, a platform for the industry to put innovative uses of technology application at HKIA on trial, while the Technovation Fund provides early-stage support to ensure even small technology startups can be selected for innovation projects. Through this collaborative model, HKIA is able to draw from local technology innovators and test and deploy advanced technologies to improve services. For the entrepreneur, the backing of HKIA is an invaluable opportunity to test and refine their solution, and to gain first customer validation that will support international scaling, and therefore local job creation.

In City as a Datavore, which looks at how the city uses data to optimize services and provide the raw material for innovation, Hong Kong lags behind its peers significantly in providing a clear open data portal for the city with live data and APIs23 that allow entrepreneurs to develop new products and services for citizens.

23 Application Programming Interfaces
In City as a Host, it has been observed that while there are many co-working spaces in the city, there is no defined innovation district or creative cluster such as those seen, for example, in Boston or Barcelona, where tech companies are purposefully centered around academic institutions in order to foster an entrepreneurial focus within the city.

**Hong Kong compared to Asia-Pacific cities, and Singapore**

When compared to other cities across the Asia-Pacific, the narrative is similar. Hong Kong leads on Strategist and performs well on Advocate but lags behind on all other policy roles. Singapore, the highest performing city in the Asia-Pacific region, falls within the top quartile of the CITIE analysis, named the Front Runner peer group alongside Amsterdam, Barcelona, Chicago, Helsinki, London, New York City, Paris, and San Francisco.

Figure 32 illustrates how Hong Kong and Singapore’s CITIE profiles compare. Singapore is represented by the lighter profile of two shades.

Singapore leads in most areas. Of particular note are the roles of Regulator, Customer, and Datavore. For example, it has updated its regulations to accommodate ride-sharing services allowing Uber and others to operate legally. It uses challenge-based procurement methods alongside its open data strategy to derive innovative new products and services, and the Transport Authority publishes a variety of transport-related data available for the creation, development, and testing of innovative applications by third-parties.

**Recommendations for Hong Kong**

CITIE looks at the quality of the municipal government policy environment to support innovation and entrepreneurship. While municipal governments cannot create entrepreneurial ecosystems, they can flex certain policy mechanisms to create the best possible environment for it to flourish. Below are the recommendations.

1. Develop an Open Data strategy for the city, working across government departments to bring together a wide variety of datasets. Make these datasets open and available under license and through APIs for entrepreneurs to create new products and services for citizens, and develop new insights into how the city operates.

2. Explore the potential of challenge-based procurement methods to draw through innovative products that can be tested on the streets of the city in order to develop new solutions to complex city problems and support local entrepreneurs’ ability to test and validate their products.

3. Look into developing technology apprenticeships and coding lessons in schools to build the technological skills of its domestic population, help them develop new digital businesses, and access new high-growth businesses.

**Immigration**

Hong Kong’s low organic (local) entrepreneurial activities and the difficulty for its startups to access top technical talent locally are the main issues holding back the development of its ecosystem. For these reasons, Hong Kong’s immigration policy is of primary importance. In fact, most experts regard talent admission policy as one of the top barriers to the growth of the Hong Kong startup ecosystem.

As discussed in the Talent section, mainland China has some of the highest quality—and probably the largest—technical talent pool in the world. While attracting software engineers from mainland China comes with some language and cultural issues, this enormous neighboring talent pool constitutes a great opportunity for Hong Kong. However, this opportunity can only be seized through a significant improvement in immigration policies. The complexity of this issue is compounded by the fact this challenge cannot be fully tackled by the HKSAR Government, as it is also a matter of the policy mainland China.

Regarding the recruitment of foreign technical talent, startups have reported being unable to obtain work visa approved through...
the Talent Admission Scheme. In particular, it is difficult for technical talent from mainland China to get a work visa because of this criteria: having secured a job relevant to the hire's academic qualifications or work experience that cannot be readily taken up by the local workforce, a remuneration package commensurate with the prevailing market rate, and good education background, technical qualifications or proven professional experience\(^2^4\). The key issue is proving to the Immigration Department that there is a talent shortage in Hong Kong for this kind of work.

Recent efforts by the HKSAR government are addressing the lack of available local technical talent. For instance, one proposal is to relax the stay requirements for entry under the General Employment Policy (GEP) and the Admission Scheme for Mainland Talents and Professionals\(^2^5\). It is still early to know the impact of these efforts, but this shows the HKSAR government is working to create an increasingly supportive structure for Hong Kong's tech startup ecosystem.

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\(^2^4\) For more information see [http://www.immd.gov.hk/eng/useful_information/admission_schemes-talents_professionals-entrepreneurs.html](http://www.immd.gov.hk/eng/useful_information/admission_schemes-talents_professionals-entrepreneurs.html)

\(^2^5\) Legislative Council Panel on Security 2015 Policy Address Policy Initiatives of Security Bureau
The first case study describes the Start-Up Chile program and how this initiative successfully impacted the cultural perception of entrepreneurship in the country of Chile. As a direct consequence of the social interaction between Chilean entrepreneurs and entrepreneurs brought in from Silicon Valley, the Chilean entrepreneurs gained new skills specifically related to opportunity identification. The impact was scientifically documented by Stanford professor Chuck Eesley and PhD Mike Leatherbee, who measured the impact on the local ecosystem in relation to the two core aspects: Entrepreneurial Self-Efficacy (ESE) and Opportunity Discovering Behaviors. Eesley and Leatherbee found that local entrepreneurs who were part of the Start-Up Chile program showed significant improvements in these areas as a direct consequence of their interaction with foreign entrepreneurs. This conclusion highlights the importance of attracting international entrepreneurs and suggests that an ecosystem like the one in Hong Kong could benefit tremendously from more frequent interaction between local entrepreneurs and seasoned international entrepreneurs.

The second case study describes the various initiatives put on by the Malaysian government in order to change the negative perception of entrepreneurship and improve the level of innovation among local startups. Through a series of international programs and events in Kuala Lumpur, the ecosystem has greatly benefited from exposure to international thought leaders and experienced serial entrepreneurs. Local entrepreneurs have gained access to world-class mentors and investors from Silicon Valley and started to think bigger than ever before.

The third case study focuses on the startup ecosystem in London and describes how the U.K. has made numerous efforts to improve the local business environment for high growth startups. These initiatives include easier access to financial resources, high quality acceleration programs, tax incentives to investors, tax credits for R&D investments, and new immigration policies.

The fourth case study is a retrospective of the earlier policies implemented by Singapore on its way to its startup ecosystem ranking of #10 in this year’s global ranking.

4.1 Chile

The Chilean government launched Start-Up Chile with the objective to diversify and enhance economic growth through innovation. The program was first conceived to attract entrepreneurial talent from all over the world in order to transform the risk-averse Chilean culture and catalyze entrepreneurship.

To exemplify how other ecosystems have tackled their growth challenges, this section examines three different ecosystems and highlights relevant insights that could benefit the ecosystem in Hong Kong. The four ecosystems were chosen because of the practical policies and practices they have implemented to increase local entrepreneurship and attract know-how from top ecosystems. These are all relevant to Hong Kong whether or not the ecosystems are now ahead of Hong Kong, or even if they resemble it.

A) Increase Global Know-How Among Local Stakeholders

As an early seed program that accelerates startup growth, Start-Up Chile offers one-year work visas, equity-free financing of $40,000, office space, and access to their broad network in Latin America. Each year, 300 startups relocate to Santiago de Chile for an incubation period of six months and agree to engage in local entrepreneurship and innovation activities, all of which increase interactions and transfer of know-how to the local ecosystem.

Since its inception a few years ago, the program’s number of applications has skyrocketed. In the first generation of the program in 2011, only 87 startups applied, while the 12th round in 2014 attracted 2,448 applications. The admissions committee is comprised of the Chilean Innovation Board, which includes experts from Silicon Valley. To ensure program success, Start-Up Chile set up an Advisory Board with renowned experts such as Vivek Wadhwa and Chuck Eesley.

Today, more than 972 startups have graduated from Start-Up Chile’s accelerator program. The short-term economic impact is palpable; almost 1,700 local people were hired by Start-Up Chile graduates. More importantly, these startups are getting a reputation for their creative business model generation.

Although the program ran smoothly and achieved its objectives in terms of knowledge transfer and impact on the ecosystem, Start-Up Chile grew concerned that four out of five startups left the country upon completion—mostly to continue operations in the U.S. or Europe. Making matters worse, startups that stayed in Chile struggled to find subsequent early-stage capital. This was
attributed to a large financing gap between Start-Up Chile’s seed funding and actual VC investments.

To increase retention rates and ensure long-term economic impact, the program has been supplemented with the SCALE fund in 2015. With this, three startups per batch are offered $100,000 of additional equity-free financing after the accelerator program. This sum constitutes 70% of a co-financed grant, leaving the startups to acquire the remaining 30% elsewhere. Furthermore, the startup must legally incorporate its business in Chile and agree to scale the business in Chile for at least another year. In May 2015, the first nine startups were selected to benefit from the SCALE fund.

B) Increase Entrepreneurial Activity

Since Start-Up Chile’s inception in 2010, 3,400 workshops and conferences were carried out while around a thousand meetups were organized. In total, almost 200,000 people have been involved in entrepreneurial activities. According to Stanford professor Chuck Eesley and PhD Michael Leatherbee, the new entrepreneurial spirit not only creates jobs and spurs existing entrepreneurial capabilities, it also stimulates the desired cultural change within the Chilean society.

4.2 Malaysia

Start-Up Chile raised an unparalleled amount of awareness that helped place its ecosystem on the global map of innovation hubs. Santiago de Chile is now perceived as one of the friendliest cities to foreign-entrepreneurs and a good test bed to tap into Latin American markets.

Another factor confirming the impact of Start-Up Chile is its role model status for many other governmental innovation programs. Start-Up Peru, Startup Brazil, Argentina’s Incubar, Startup Jamaica, and MAGiC Malaysia are inspired by the program, thanks to delegation visits to Chile which more recently include Korea.

Conclusion

While there is still a long way to go to make Santiago a self-sustaining tech startup ecosystem, Start-Up Chile’s efforts can be defined as a success story. They demonstrate that policymakers can have a key impact in creating a vibrant entrepreneurial community.

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Another factor confirming the impact of Start-Up Chile is its role model status for many other governmental innovation programs. Start-Up Peru, Startup Brazil, Argentina’s Incubar, Startup Jamaica, and MAGiC Malaysia are inspired by the program, thanks to delegation visits to Chile which more recently include Korea.

In 2014 the government created a new powerhouse for entrepreneurship in Malaysia: MaGIC. The appointed CEO Cheryl Yeoh, a former startup founder with extensive experience in New York and San Francisco, kicked off MaGIC by inviting local entrepreneurs to a series of dialogues about the challenges for entrepreneurs in Malaysia.

MaGIC has launched a wide variety of programs to address the needs of local entrepreneurs, including co-working spaces for startups; MaGIC Central—an online database of all resources for entrepreneurs; links to investors, community events, training programs for entrepreneurs; academic faculty training programs; the MaGIC Academy for online learning; linkages to Silicon Valley; and more.

A) Attract Know-How from Foreign Entrepreneurs and Talent

The government recognized the importance of exposing local entrepreneurs to international perspectives and have made efforts to bring thought leaders from around the world to Malaysia on a regular basis, as well as sponsoring local entrepreneurs to visit Silicon Valley so they can bring back new insights to share with the community.

Kuala Lumpur has been the host city of several large international startup events such as Silicon Valley Comes to Malaysia in 2011.

For more information see http://impact.mymagic.my/#founding-of-magic

For more information see http://www.state.gov/e/eb/cba/entrepreneurship/ges/2013gep/


7 For more information see http://www.startupmalaysia.org/

8 For more information see http://impact.mymagic.my/#founding-of-magic

9 For more information see http://www.state.gov/e/eb/cba/entrepreneurship/ges/2013gep/
Global Entrepreneurship Summit in 2013, Global Startup Youth, and others.

In 2011, a delegation from Silicon Valley including founding team members of YouTube, LinkedIn, and Priceline.com came to Kuala Lumpur to advise local entrepreneurs and government officials. In 2013 American president Barack Obama was scheduled to take part in the Global Entrepreneurship Summit. He ended up sending Secretary John Kerry in his place, but the event still had a strong impact on the visibility of the ecosystem.

Another initiative focuses on attracting foreign entities from top ecosystems. For instance, support was provided to 500 Startups so they launch an accelerator program with the goal of accelerating 100 startups within the next three years. B) Improve Availability of Top Quality Talent

While local technical talent and education is considered of good quality, the cultural preference for stable jobs translates into a challenge for startups because they have to compete with larger companies for the best engineers. This has led startups to turn to foreign talent. With another example of responsive policy making, through special regulation accelerating the approval of work permits sponsored by tech startups the government has made it easier for them to hire foreign talent—in fact making it much easier than in the great majority of other countries. A business with a MSC status can now get a work visa approved in as little as one week.

C) Improve Local Seed Funding

While there is no lack of high-net-worth individuals in Kuala Lumpur, few have experience with tech investments and the risk appetite for them. The government has worked to reduce the seed funding gap through grants and programs which make it easier to get a first $50,000 in capital.

D) Increase Entrepreneurial Activity

The government has made efforts to change the perception of entrepreneurs in the country by publicly honoring local founders and recognizing them as change-makers and job creators. These policies are generally recognized as contributing to the rise of a new, more entrepreneurial generation of Malaysian tech entrepreneurs.

To overcome the social stigma against taking risk and working in a startup, MaGIC launched a web portal featuring local startup founders as superheroes. There aspiring entrepreneurs and concerned parents can read about life in a startup and become more familiar with the startup process from the perspective of other local founders.

Conclusion

The Malaysian government has actively invested in the development of its startup ecosystem. With an impressive growth in successful exits, Kuala Lumpur is experiencing the rise of a new generation of Malaysian tech entrepreneurs.

4.3 London

As part of a government program promoting job creation, economic diversification, and growth, the regional "Tech City UK" initiative was established in November 2010. Recognizing the potential of tech startups to drive growth and innovation, it became top-priority for the British government to develop the London startup ecosystem.

Prime minister David Cameron explained: "Of course, we will change laws where necessary so we break down the barriers to innovation. But more than that, we will use our power and influence to agitate for, cajole, and inspire the change we want to see." A) Improve Availability of Top Quality Talent

The need for top quality talent was identified as in enhancing the influx of international talent and professionals, thereby fueling the intellectual resources of the ecosystem. Through introduction of the "Tier 1 Entrepreneur Visa", another opportunity for non-European entrepreneurs to obtain a residence permit was established. Specific eligibility criteria include proven access to UK-based investment capital of £50,000 (US $80,000), certain command of English language, and the ability to cover living expenses. This process is fast-tractable for individuals with a proven record of having generated at least five jobs or £5 million (US $8 million) in revenue.

In April 2014, the government further authorized Tech City UK with the "Designated Competent Body" (DCB) status for the "Tier 1 Exceptional Talent Visa", meaning that it can fast-track 200 visa

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10 http://www.state.gov/e/eb/cba/entrepreneurship/ges/2013gep/
11 For more information see http://globalstartupyouth.org/
applications of overseas talents. While this program was initially limited to disciplines such as arts and social sciences, it now also encompasses tech talent. Alongside, other work visa programs target overseas investors who are willing to invest more than £1 million (US $1.6 million) in the UK.

B) Improve Local Funding

New incentives were implemented to boost VC investments. The “Enterprise Investment Scheme (EIS)” and “Seed Enterprise Investment Scheme (SEIS)” were both restructured to offer an extended range of tax reliefs to investors buying ordinary shares of startups. Whereas the EIS grants private investors tax breaks of 30% on investments up to a limit of £1 million, (US $1.6 million), the SEIS defines reliefs of up to 50% on the first £100,000 invested (US $160,000).

To further facilitate the access of fast growing companies to financial capital, the government has initiated the creation of the “High Growth Segment” (HGS) at the London Stock Exchange with lower entry requirements. It is specifically designed for mid-sized European and UK companies with above-average growth rates that require access to public capital in order to scale rapidly.14

C) Other Programs

Reinforce Dialogue Between Public and Private Stakeholders

In order to understand and reduce the barriers to growth in the digital economy sector, the government has continually sought feedback from the tech community and other experts. Through exchange via different channels, the startup community has the opportunity to give voice to their interests and to become involved in political decision-making processes. For instance, the “Tech City Breakfast” events provide a platform for dialogue between government representatives, entrepreneurs, investors, and other stakeholders at No. 10 Downing Street. Therefore, a continuous exchange on upcoming opportunities and challenges of the Tech City community is ensured.

Provide Tax Breaks to Support Innovation

Based on a report by Professor Ian Hargreaves, which reviewed the correlation between IP and growth, the government modified the legal framework for IP protection to better promote innovative products. One example is the “Research and Development (R&D) Tax Credit” created to encourage R&D.

This program resulted in a 13.9% growth in R&D investments by small and medium-sized enterprises (SMEs) between 2011 and 2012, supported by £400 million (US $6.4 million) in tax credits. Furthermore, through the introduction of the “Patent Box”, patents developed in Britain are rewarded while re-investments are encouraged through a 10% tax reduction on related revenues.

Help Promising Tech Startups Grow

Since combining political prioritization with strong financial resources and relevant expertise, several scaling initiatives, such as the “Future Fifty” program, have been established. Aiming to bring about new technology corporations similar to the size of Google or Facebook, fifty rapidly growing startups per cohort are accelerated until they surpass a critical maturity level. Due to this program, several startups in the first cohort have achieved significant milestones in 2014; the 13 strongest startups have collectively raised £260 million (US $416 million), four companies have been listed on the public markets, and one has been acquired.

Continuously expanding their services and competencies, Tech City UK also implemented two novelities: firstly, it is now able to fast-track visa applications of highly-skilled tech workers from overseas to facilitate recruitment processes for startups. Secondly, it provides entrepreneurs and other stakeholders with free online digital business skills courses through the newly established “Digital Business Academy”.

With respect to the ongoing digitalization of public services, facilitated access to public procurement has been identified as one direct measure to support high-growth firms. With annual expenditures in excess of £230 billion (US $368 million), the government has a strong purchasing power from which SMEs had been traditionally excluded. Having set the objective to channel at least 25% of its annual spend to SMEs, they are now strategically promoted. With the introduction of the “G-Cloud”, a marketplace for digital innovation, several ministries and government agencies have entered into framework agreements with service providers without complex bidding processes. Since the introduction of G-Cloud, two-thirds of the total expenditure has been allocated to SMEs.

14 For more information see http://www.londonstockexchange.com/companies-and-advisors/main-market/companies/hgophgs.htm
4.4. Singapore

The Singapore startup ecosystem is a success story, having become an international pole of attraction for startup resources leading it to grow to rank #10 in the Global Startup Ecosystem Ranking 2015\(^{15}\). This success is largely rooted in proactive policies and economic development programs pursued by the government of Singapore, including attractive investment and immigration programs based on best practices from around the world.

As the tech revolution started to take form in the U.S. in the mid to late ’90s, the Singapore government successfully identified the tech industry as a strategic sector in which to invest, and proceeded like it did previously by investing in light manufacturing, then pharmaceutilicals in the preceding two decades.

In 1999, the National Science and Technology Board (NSTB) set up the $1 billion Technopreneurship Innovation Fund (TIF) with the intention to attract the seasoned venture capitalists and provide sufficient funding sources for local startups to flourish. One year later, the NSTB partnered with overseas venture capitalist Techno Venture Management to co-invest in Life Sciences and Information and Communications Technology startups.

While the program had some success, the lack of an entrepreneurial culture, combined with the burst of the dot-com bubble and a global recession led to major setbacks rather than progress for the startup ecosystem. This called for a change in strategy, as it became clear that it takes much more than experienced venture investors and capital to build a thriving startup ecosystem.

In 2000, the Pro-Enterprise Panel was set up to help businesses overcome rules and regulations that may hinder their growth. A public-private partnership, the panel focuses on business problems and seeks to provide effective solutions to regulatory barriers, contributing to a more pro-enterprise environment in Singapore. In 2003, the Economic Review Committee (ERC) was set up to chart the future of Singapore’s economy. The ERC recommended that Singapore must be a “knowledge economy powered by innovation, creativity and entrepreneurship”. The efforts of the panel, coupled with the recommendations made by the ERC set the ground for seeding the entrepreneurial culture in Singapore.

Over the five to ten years that followed, the following programs were initiated to achieve specific objectives.

A) Increase Global Know-How Among Local Stakeholders

Bring Foreign Entrepreneurs and Talent to Singapore

Beginning in the mid-’90s, one of the first actions taken to bring foreign expertise and experience to the Singapore ecosystem was the Techventure conference and Exhibition. It has since become the largest and best-funded event of its kind in Southeast Asia. Held annually, it attracts thought leaders and investors from Silicon Valley, China, India, Israel, and elsewhere to Singapore. It also hosts leading Series A stage startups from the Southeast Asian region, reaching out to them directly to come exhibit and pitch to local and overseas investors. Another one of its functions is to selectively invite U.S. and global startups that are interested in expanding into Asia and in establishing their regional operations in Singapore.

More recently, the Economic Development Board (EDB) set up a direct investment program designed to attract international know-how by encouraging startups to open an office in Singapore. The program invests $3 to $10 million in later-stage international startups (at Series B or C) in return for establishing an office carrying out material business and/or technical activities in Singapore. This has attracted world-caliber, fast-growing startups. For Singaporeans, it offers growth-stage startup experience and career opportunities.

Send Local Entrepreneurs and Talent Abroad

To increase interactions between Singaporean talent and top startup ecosystems, the NUS initiated the Overseas College program in 2001. It is an international excursion specifically designed for students of local universities with a strong GPA and demonstrated entrepreneurial mindset. During the period of one year, students immerse themselves in leading startup ecosystems such as Silicon Valley, New York City, Tel Aviv, Beijing, Shanghai, or Bangalore. The year is structured in a way that students can learn on the job, interning at startups (70% of the time) while reading relevant academic content at high-quality partnering universities (30% of the time) such as Stanford, NYU Polytechnic, or Tsinghua University.

In addition to acquiring academic and practical know-how from leading startup ecosystems across the globe, this program has also had a significant effect on the growing entrepreneurial spirit of Singapore. Many of today’s leading young Singaporean entrepreneurs are alumni of the NUS Overseas College program. Some companies they have themselves founded have grown to international scale and financial success.

Local government agencies also organize regular business mission trips to support the internationalization efforts of startups in Singapore. Seeking business deals, test-bedding opportunities

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\(^{15}\) For more information see Compass’ Global Startup Ecosystem Ranking 2015 at http://startup-ecosystem.compass.co/ser2015/
and investments, trips have been made to countries such as the United States, Germany, China, Japan, Indonesia, and more.

Block71, the latest NUS program in cooperation with Infocomm Investments and SingTel Innova, continues those efforts and facilitates access to the Silicon Valley community. Through provisions of co-working space and community events it enables knowledge sharing between Singaporean and American entrepreneurs who share the mutual interest of entering each other’s home markets.

Attract Know-How from Other Foreign Stakeholders

The Singaporean government attracts leading global accelerators to establish their program in the ecosystem through a) direct investment in the accelerator by Infocomm, and b) the SPRING Singapore Incubator Development Programme (IDP) and co-investment matching program. IDP provides up to 70% grant support to incubators and venture accelerators to enhance their programs and capabilities to better assist innovative startups, while the co-investment program offers leverage for value-adding accelerators to invest into and scale the startups they incubated. In 2015 Startupbootcamp launched a FinTech accelerator, and some corporations, such as Unilever, established accelerator programs.

SPRING Singapore is another program that encourages winning partnerships between large organizations such as multinational corporations and startups through the Partnership for Capability Transformation (PACT) program. Under this program large organizations can co-innovate with startups, share knowledge and expertise, and help startups upgrade their capabilities.

In addition, the Techventure conference and exhibition attracts foreign thought leaders to the ecosystem every year.

Attract Know-How from Foreign Investors

The Techventure conference and exhibition as well as other government efforts have attracted leading international investors to the ecosystem. In 2004, Singapore’s EDB set up the Global Investor Programme (GIP) to build up locally-focused funding resources while attracting foreign investors from other ecosystems. Qualifying investors can thereby obtain permanent residence for investing at least S$2.5 million (US $1.8 million) directly into a startup or venture fund.

B) Increase Entrepreneurial Activity

In 2003, a private-public sector movement named Action Community for Entrepreneurship (ACE) began to pursue the vision of creating a sustainably successful entrepreneurship ecosystem in Singapore. One of ACE’s most important objectives was to foster a cultural shift making startups a viable and attractive career option in the minds of top young local talent, and then to increase tech entrepreneurship rates by encouraging them to start a company. Initiatives such as YES! Schools by SPRING Singapore pursued these objectives by supporting high schools to put in place a structured entrepreneurship learning program.

The efforts of other organizations described in the following sections, especially the National University of Singapore (NUS) Overseas College program, have also significantly contributed to increasing entrepreneurial activities by not only broadening the horizon of students, but also by offering support in incubation and commercialization activities.

According to research published by the Global Entrepreneurship Monitor (GEM), this objective is on its way of being realized. The entrepreneurial intention rate increased19 from 11.2% (0.1% below the mean) in 2003 to 15.3% (3% above the mean) in 2011. Over the same period, the actual realization of entrepreneurial activity, as measured by the Total Early-Stage Entrepreneurial Activity Rate (TEA), went up by a third, from 5.0% in 2003 to 6.6% in 2011.

Interviews with local experts confirmed that government initiatives played a key role in fostering an entrepreneurial spirit, and they continue to do so. From 2012 to 2015, the GEDI reported the continued progress of Singapore’s entrepreneurship from #13 to #10 in the world.20

In 2004, the Entrepreneur Pass (EntrePass) scheme was launched to attract foreign entrepreneurs from abroad, either temporarily or permanently. It has been an integral part of Singapore’s overall plan to become a regional business hub and attract the best business and entrepreneurial minds from North America, Europe, Asia, and elsewhere to the country. Certain family members are permitted to move to Singapore as well.21

C) Improve Local Funding

In addition to the GIP program described above, the government has emulated other programs from abroad to build up local venture capital and related capabilities and connections.

Similar to Israel’s Office of the Chief Scientist, the Singaporean government established the National Research Foundation (NRF) in 2008 as a department reporting directly the Prime Minister’s office.
Office. It sets the national direction for R&D by developing policies, plans, and strategies for research, innovation, and enterprise.

One of its programs—the S$350 million (US $250 million) National Framework for Innovation & Enterprise—enabled NRF to actively invest in Singapore’s tech startup ecosystem. It supports incubator programs such as the Technology Incubation Scheme, whereby it co-invests with select fund manager in Singaporean startups. Up to 30% of the companies funded are run by international entrepreneurs, thus reinforcing the attraction of world-class know-how.

The NRF has also set up the Early-Stage Venture Fund (ESVF) for Series A investments. Matching private investments on a 1-to-1 basis, the program helps companies obtain expansion-stage funding after incubation. The ESVF also enables local first-time fund managers with their own capital raising. Investments into individual companies are capped at $10 million. To date, the ESVF program has co-invested $100 million.

SPRING Singapore provides funding support for local startups. This generally takes the form of grants for early stage startups as well as co-investments schemes and tax incentives to catalyze private sector “smart money”.

For instance, a S$50,000 (US $36,000) grant is offered to first-time Singaporean entrepreneurs with a unique and differentiated business idea. Also, tech startups with at least 30% local equity can receive a grant of up to S$500,000 (US $355,000) through the Technology Enterprise Commercialization Scheme (TECS).

SPRING SEEDS Capital provides an equity-based co-investing option for startups. The Angel Investors Tax Deduction Scheme and S13H Approved Venture Company tax incentives provide incentives to private venture capital investors. In addition, government backed loans are available to startups through participating financial institutions.

Conclusion
Singapore is a good example of a government that has pro-actively and relentlessly worked on defining, executing, and learning how to improve local programs meant to develop a world-class startup ecosystem. Its #10 ranking in the Global Startup Ecosystem Ranking 2015 is the direct result of concerted efforts rather than of any pre-existing strength.
Key Findings and Recommendations
5.1 Key Findings

The analysis of Hong Kong's startup ecosystem according to Compass' Input Factor gap analysis and Ecosystem Lifecycle Model point to the fact that the ecosystem is at the early phase of development called Activation. This is the central structure used to understand Hong Kong's ecosystem challenges and frame solutions.

Consistent with the Activation phase, Hong Kong's ecosystem has a relatively high Growth Index of 3.0, growing rapidly from a small base, and a low Attraction Index due to a lack of exciting exits. Very few venture investors and startups have moved to the ecosystem from elsewhere during the last few years, except for startups relocating their headquarters before an IPO specifically to take advantage of Hong Kong's world-class stock market.

Examining the Performance Index and consistent with the Activation phase, Hong Kong has a low Ecosystem Value of $2.8 to 3.5 billion, much lower than that of the top 20 ecosystems. For reference, Montreal and Vancouver (ranked #20 and #18 respectively) have a higher Ecosystem Value despite their much smaller populations and their similar Startup Output (all three cities count slightly more than 2,000 startups).

These issues are further illustrated by Hong Kong's low exit value (total exit valuations of $1.4 to 1.7 billion), complete lack of unicorns and exits above $1 billion, and the total valuation of all its pre-exit tech startups of $1.5 to 1.8 billion—half that of Montreal and Vancouver. Its Startup Performance reflects the same issue with the valuation of its startups growing three and five times slower than that of New York and Silicon Valley, respectively.

First, as for all ecosystems at the Activation phase, the core issue Hong Kong has to contend with is the relative lack of global know-how of its entrepreneurs and talent, which translates into a lack of high-potential, globally competitive startups. The main cause is a lack of interactions between local entrepreneurs and talent on one side, and stakeholders in top ecosystems (entrepreneurs, technical talent, investors, and customers) on the other. As a result, local startup teams are not up-to-date on the rapidly evolving business models, technologies, global business opportunities, and competition. Consequently, they trail their counterparts in top ecosystems, being left to target local market opportunities rather than developing leading-edge innovations that address global opportunities.

Second, Hong Kong is fraught with a technical Talent gap, specifically as it relates to startups having difficulty to access high-quality technical talent. While Hong Kong has quality technical talent, the best graduates favor high-paying and secure jobs in large companies instead of the demanding and high-risk jobs offered by startups. As is normal at the Activation phase, Hong Kong's technical talent lacks prior experience in startups and global know-how when it comes to best technologies, tools, and coding practices.

Thirdly, Hong Kong has a seed Funding gap, more specifically a lack of active angel investors. It is revealed by the low proportion of startups obtaining a "normal seed" round, less than half the proportions found in Singapore and New York City.

On the other hand, the Hong Kong startup ecosystem benefits from resources inherited from other local industries. Two types of resources stood out from the analysis as being at a higher level of development than normal for the Activation phase.

Hong Kong's first strength comes from its historical position as a leading international financial center, and has brought massive amounts of capital and investors (including experienced institutional venture investors) to the city. For this reason, the analysis of local Series A and B funding showed no gap. While there is a lack of Series C or D funding events in Hong Kong, there is plenty of late-stage investors and capital—but there is lack of high potential late-stage startups to invest in.

As importantly, unlike other ecosystems at the Activation phase Hong Kong's institutional investors are already globally integrated, i.e. they actively invest in startups from top ecosystems, and are already caught up to global know-how.

This financial industry strength can be leveraged by Hong Kong to seize the opportunity presented by the rapid growth of the FinTech sector. A well-crafted and funded strategy could allow Hong Kong to accelerate the overall growth of its ecosystem by riding the wave of rapid growth of the FinTech sub-sector.

Hong Kong's second resource strength comes from its longtime position as an important international trading center (and not so long ago a leading one). The city counts on a significant number of sales and marketing people with international expertise, a skill that Activation phase ecosystems rarely have. This most likely explains Hong Kong's high ranking in Global Market Reach, with a high percentage of foreign customers achieved by its startups at an early-stage.

However, the scarcity of Series C and D funding events demonstrates that Hong Kong startups entrepreneurs and teams have yet to build the skills, specific to tech startups, required to develop...
and capture global market opportunities. Executing growth in a startup is different from traditional sales and marketing.

Hong Kong may also capitalize on its close proximity to Shenzhen and its hardware prototyping and manufacturing capabilities by developing and executing a strategy to seize the opportunity presented by emergence of IoT as a fast-growing tech sector.

In conclusion, because the Hong Kong startup ecosystem is at the Activation phase, it contends with a lack of global know-how among its entrepreneurs and talent, which hinders the productivity of local resources and the production of startups with global potential leading to large exits. Because tech startups are essentially a recent phenomenon and career choice, until many large exits occur and motivate local youth, the ecosystem will contend with gaps in technical talent and entrepreneurial activity. Along with the lack of active tech angel investors, these issues limit the growth of the ecosystem.

5.2 Recommendations

5.2.1 Objectives

It is important to understand what drives this report. This research postulates that in a world where startups and innovation have become the #1 driver of economic growth and job creation, and every economy is facing global competition for resources and markets, Hong Kong cannot afford to fall behind.

This is increasingly important, as the tech revolution has gone global and software has undeniably become a key strategic growth sector for every economy, as well as a building block of all other innovation industries such as biotech, nanotech, life sciences and clean tech.

The economic importance of tech startup ecosystems is informed by Michael Porter’s business cluster concept, first described in the Competitive Advantage of Nations. The “geographic concentration of interconnected businesses, suppliers, and associated institutions” in a particular sector or industry increases the average productivity of each entity, driving innovation and the creation of new businesses (startups). In this way, large and balanced industry clusters benefit from a sustainable competitive advantage over other locations and may gain a dominant position (e.g. Hollywood and Silicon Valley).

Hong Kong will never be Silicon Valley and should not try to be. Silicon Valley was built by large government investments in high-tech starting in the 70s, then its software sector was built upon the assets (capital, talent, entrepreneurial spirit, innovation and scaling know-how) of its high-tech sector. For this reason specifically, neither Compass’ research nor this report is driven by lessons from Silicon Valley.

However, Hong Kong is fully capable of successfully developing a strong ecosystem. Comparatively, Hong Kong has as many if not more strengths and strategic assets to build on than several of the top 10 ecosystems, such as Berlin, Singapore, and Tel Aviv had 15 years ago or even now. In fact, it counts on vastly more resources than the rest of the top 20 ecosystems.

Each of the top 20 startup ecosystems has successfully grown by taking a different path, based on its own unique assets. But they have also built upon each other’s strategies and tactics because their strengths, weaknesses, and challenges overlap here and there.

Hong Kong can also successfully grow its startup ecosystem by learning from the strategies adopted by top ecosystems, especially from those sharing some of its strengths, weaknesses, culture, and ecosystem lifecycle development phase. Comparable ecosystems for the analysis (Singapore, New York City, and London, rather than Silicon Valley) and case studies were selected for these reasons.

The goal is not to become a top 10 startup ecosystem, but to diversify its economy, ensuring long-term prosperity and positioning itself as one of the world’s leading cities by growing its innovation sectors. To that end Hong Kong would invest in building a stronger and stronger tech startup ecosystem by developing a strategic plan integrating the following recommendations (a collection of strategies and tactics), and building consensus for concerted actions by its stakeholders.

Hong Kong shall not invest in trying to brand itself as a port of entry to mainland China for global tech startups, or a stepping stone to the rest of the world for Chinese startups. This point is well supported by research. In short, until Hong Kong startups are very successful at penetrating those global markets, having built the required capabilities, Hong Kong cannot successfully hope to reap positive returns from trying to attract foreign startups for this purpose.

While the following strategies and tactics specifically address Hong Kong’s main gaps, they are relevant to all small- and medium-sized ecosystems at an earlier stage of development, along with the recommendations detailed in the next section.

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Once consensus is established among local stakeholders around strategies and tactics to be implemented, different stakeholders can lead or participate in taking action. The role of the government is to facilitate the activities performed by private entities and to invest or otherwise boost those activities where there is a specific gap identified. The latter is very important and specifically relevant in the case of Hong Kong because most of its challenges, common to the Activation phase, cannot be addressed directly by the private sector. But once an ecosystem is mature, regular large exits replace government efforts by motivating youth to choose technical degrees and become entrepreneurs, as well as by producing high-net-worth-individuals who become active tech angels. Until then government efforts are crucial.

5.2.2 Priorities

**Short-Term Priorities**

**A) Increase Global Know-How Among Entrepreneurs**

This issue is complex and cannot be resolved overnight. It is the object of many tactics exposed in the next section. A short-term solution includes attracting global accelerators to Hong Kong and developing special access to overseas accelerator programs for Hong Kong startups in top and strategic ecosystems (e.g. Silicon Valley, New York City, London, Singapore, Beijing, and Shenzhen).

Global accelerators teach up-to-date know-how and global best practices to entrepreneurs, which is exactly what Hong Kong needs. Furthermore, accelerators not only provide rapid benefits to the entrepreneur community, but also help enhance relationships between startups and local investors, corporations, and thought leaders interested in demo days and other aspects of their programs. Because local venture investors and many other local stakeholders possess global know-how, accelerator activities help entrepreneurs catch up in more than one way.

**B) Improve Availability of Top Technical Talent**

While several other programs address this issue (see next section), short-term solutions can start with giving tech startups a special status in sponsoring work visas for young graduates in selected fields such as software engineering. Then help promote immigration to Hong Kong in countries and colleges with top talent. Good targets include Russia, former Soviet Bloc countries and Eastern Europe, as well as mainland China. Hong Kong has much to offer to youth from any of those countries: a more cosmopolitan culture, economic freedom, and interesting social activities, attractive to youth from all these countries; greater assets on which to build IoT startups (except vs. mainland China) and FinTech startups; and a stronger startup ecosystems (except vs. Moscow and mainland China).

This recommendation will also have a positive impact on Hong Kong's entrepreneurial activity. First, because some of this technical talent comes with the desire to found a startup, and second because immigrants in general have a much higher propensity to become entrepreneurs.

**C) Grow the Tech Angel Investor Community**

Until many exits by tech startups fuel a large community of tech angel investors—which can easily take ten years from the Activation phase—it is normal for an ecosystem to have a seed funding gap. The Hong Kong ecosystem cannot wait for this to happen organically. In the meantime, in order not to waste some of its young entrepreneur efforts (possibly as much as 50% of it in the case of Hong Kong), an ecosystem has interest in actively investing in supporting its angel investor community.

One of the best ways to do so is through matching funds programs, because they directly increase the capital available to seed rounds, which leads to more startups getting funded. They may be funded by both public and private entities such as large corporations, investor groups, or associations and/or government departments.

Because the analysis and interviews clearly established that the Hong Kong startup ecosystem does not have a funding gap with regard to Series A, B, C and later rounds, any matching funds program should exclusively focus on seed funding.

Under such programs, funds invested by one or several private angel investors are matched at a pre-determined ratio, for instance $1 for every $2 invested. Matching funds can be managed by a formally organized group of private angels under the guidance of an experienced fund manager.

Matching funds provide several benefits over other programs such as grants and tax credits. First, the entity's or government's capital allocation is considered an investment, i.e. an asset rather than an expense, easing its budgeting process and possibly allowing a larger allocation. Second, the shares purchased by the funds may generate positive returns, further increasing the available capital and easing future allocation. Thirdly, they can be pooled into funds under experienced, private fund managers, helping direct the capital towards investment expertise and in turn, to the most promising startups—whereas grants and tax credits are blind to the expertise of the angel investor and to the quality of the startup. Lastly, the cost of managing the program is greatly reduced by passing its operation to an angel group.
D) Develop and Execute Sub-Sector Strategies

Startup ecosystems at any stage can grow faster by riding the wave of a fast-growing tech sub-sector. Silicon Valley certainly did so with the tremendous growth of social networks into their own large specialized sub-ecosystems of apps, technologies, and services. While an ecosystem cannot bet on having the most important unicorn in a sub-sector, placing strategic commitments in sub-sectors that are widely predicted to experience dramatic growth can provide some degree of leadership and have a powerful impact.

As discussed in section 2.1, Hong Kong’s strengths support selecting IoT and FinTech as sub-sectors in which to make long-term strategic commitments. Certainly both of them are generally accepted as having high potential for hypergrowth in the next five to 10 years. Commitments would be made in the short term in order to seize leadership, knowing other ecosystem are already positioning themselves for such leadership.

This would mean dedicating to IoT and FinTech a portion of the budget and efforts allocated to the above programs, as well as those listed in the next section.

Long-Term Priorities

E) Continue to Increase Entrepreneurial Activities

As Singapore discovered 15 years ago, an ecosystem cannot thrive without instilling a mindset change and closing its gap in entrepreneurial levels. While it is difficult, committed efforts can have a measurable impact on entrepreneurial activity and mindset within a period of 10 years. Because effective programs are generally known, information on them is widely available, and since they are the specialty of other organizations such as the Global Entrepreneurship Network, they will not be described here in details. Worth noting, however, is that the immigration program discussed above can have a positive impact on entrepreneurial activity.

5.2.3 Detailed Programs

Note: Please refer to the case study section (Section 4) for more details on programs implemented by Chile, Malaysia, London, and Singapore.

In order to optimally manage and coordinate programs, establishing a central department reporting directly to the head of government is important. Singapore’s NRF and Israel’s Office of the Chief Scientist are key examples Hong Kong can learn from. These departments play an important role in managing and optimizing the allocation of portions of the total budget to the different programs in order to achieve maximum impact.

A) Raise Local Entrepreneurs Know-How

More Startups with Global Potential

This recommendation is specific to Catch Up activities during the Activation phase, with the purpose of attracting global know-how by increasing interactions between local entrepreneurs and talent, and foreign stakeholders, preferably from top ecosystems.

The purpose is to help entrepreneurs and talent learn global best practices such as the latest business models; fast growing product categories, sectors, or markets opportunities on the global stage; leading-edge development tools, technologies, and methodologies; any new funding trends or structures (e.g. the advent of Series Seed or how average amounts and valuations are changing); and startup best practices, such as Lean Startup and other management concepts.

Angel investors also need to catch up to global know-how, and this will be addressed in the “Improve Local Seed Funding” section below.

Increase Interactions in Hong Kong

Temporary attraction of foreign stakeholders—whether for a few days or 6 months—is a good objective. Obviously, getting experienced stakeholders to actually move from a top ecosystem is even more powerful in attracting global know-how. However, because ecosystems at the Activation phase are not exciting to experienced stakeholders living in a top ecosystem, attracting and retaining them (i.e. continuously compensating them for giving up the benefits provided by a top ecosystem) is not expected to be cost-effective.

Still, the presence of later-stage startups led by foreign entrepreneurs from top ecosystems is very beneficial to the local ecosystem in terms of knowledge transfer. But other strategies are more effective to achieve those benefits and they will be covered later in this section.

- Attract Global Accelerators
  
  Accelerators are an exception to the recommendation to attract know-how by temporarily attracting foreign stakeholders. This is because unlike investors and startups, accelerators can thrive and be as profitable in early-stage ecosystems as in top ecosystems. Consequently, accelerators can cost-effectively be attracted to an Activation phase ecosystem.

  Singapore, and most likely other ecosystems as well, have been successful in attracting reputable global accelerators by directly investing in or providing financial incentives to them.

- Invite Foreign Entrepreneurs from top Ecosystems

  Several ecosystems have successfully executed programs offering small amounts of seed funding exclusively to entrepreneurs from foreign ecosystems. The target benefits are to “import” the
know-how and entrepreneurial culture of top ecosystems into the local ecosystem to pollinate entrepreneurs and talent. Local stakeholders also gain international networking opportunities, becoming one degree of separation from the guest entrepreneur’s network in the top ecosystem. Such program can benefit from including the following elements:

- Open the program only to entrepreneurs who have worked for at least a few years in startups located in a top 10 ecosystem or a top 3 ecosystem in mainland China (including Shenzhen), favoring 2nd and 3rd time entrepreneurs. Invite a mix of entrepreneurs who have worked in different types of startups and at different stages of their development, including unicorns, to bring a richer set of know-how to the local ecosystem.

- While grants are more attractive to foreign entrepreneurs, experiment with a mix of grants and matching seed investments funneled through a local seed fund partially or completely funded by the government, but managed by a private angel group. Investments provide a lasting relationship and long term benefits to the local ecosystem. The seed funding section provides details as to how these funds can be set up.

- Include requirements for the guest entrepreneur to formerly share its knowledge with local entrepreneurs on a regular basis, a component that was part of Start-Up Chile’s program. This may also include sessions with university students, promoting entrepreneurship and startups as a career choice.

- Exclude from this program longer-term success metrics such as getting startups to stay in the ecosystem after completing the program.

• College Exchange Programs with Top Ecosystems

These programs having been implemented in many ecosystems including Hong Kong, so this recommendation will be limited to a few key points:

- One of the most valuable aspects is the co-op component, with the University of Waterloo program being the most successful and one of the most innovative to learn from.

- To grow the program to more and higher caliber colleges and universities, emphasize the strengths Hong Kong has to offer, such as the proximity of Shenzhen for IoT and its world-class financial industry for FinTech.

• Bring Global Stakeholders to Hong Kong

Continue to support international startup events such as RISE and StartmeupHK Festival, increasing the budget spent on:

- Attracting thought leaders who are interested in working with Hong Kong startups.

- Identifying, specifically inviting, and providing incentives for top regional startups to come exhibit, raise money, and network in Hong Kong.

- Bringing large corporations (as potential customers and partners for different types of startup) from Hong Kong, the Southeast Asia region, and the world.

- Attract high potential growth-stage startups based in the U.S. and Europe that are ready to expand to Asia.

• Attract Secondary Offices of Startups and Tech Companies

Another way to grow local know-how and increase Startup Experience is to attract large, successful tech companies to open a secondary office in Hong Kong. Even though only a limited number of knowledgeable employees will move to the ecosystem, they bring with them the valuable know-how of a fast growing startup or unicorn to the ecosystem and transfer it to local talent in the most effective way: on-the-job training.

Singapore (see the related case study) keenly used investment dollars to motivate startups to establish their Asian operations there, mostly by following on Series B or C investments led by foreign VC firms.

This can be replicated by Hong Kong, with a focus on attracting startups and tech companies that most value Hong Kong’s strengths. This includes its comparative advantages versus other Asian cities—for instance, its more cosmopolitan culture, economic freedom, and interesting social activities are all points that appeal to top management making or influencing the location decision.

The government may consider adding tax incentives to sweeten the opportunity, helping these efforts be successful in making a growing number of successful startups and tech companies select Hong Kong as their Asian headquarters.

• Immigration Visas

Many of the above recommendations require visas. These and other immigration issues will be discussed later, in the section focused on improving Hong Kong’s technical talent.

Increase Interactions Abroad

• Accelerators and Incubators in Top Ecosystems

Similar to the role played by UpWest Labs in Silicon Valley for Israeli startups, a private accelerator located abroad with special access for Hong Kong startups would help bring entrepreneurs and startup teams to top ecosystems at a very early-stage. It will teach them best practices useful throughout their development, in addition to putting them in front of global customers, a key
need of Hong Kong startups. Most of them will then bring back their know-how to Hong Kong.

Hong Kong stakeholders may invest in or offer financial incentives such as partially funding the accelerator or startup’s participation in order to secure special access for Hong Kong startups. However, full funding for each startup should not be offered and the accelerator’s right to reject a startup application should be maintained so the accelerator has an incentive to carefully select startups. This program could be combined with the one described earlier, focused on getting global accelerators to establish programs in Hong Kong.

Another aspect to consider is adding certain conditions, such as requiring startups to keep at least a portion of their operations in Hong Kong. This program may also be shaped around incubators, which are less expensive than accelerator programs but, according to research, also create less value. Incubators may still provide some of the benefits targeted by Hong Kong, specifically that entrepreneurs and talent interact with stakeholders from top ecosystems.

- College Exchange Programs with Top Ecosystems
  See the description of this program earlier in this section.

- Trips to Top Ecosystems
  Some know-how can be captured through trips organized to visit top ecosystems such as Silicon Valley and New York City and meet with a variety of stakeholders. Many ecosystems have run a version or another of this program, for instance Germany with its Silicon Valley week. Local stakeholders that can benefit from such trips include entrepreneurs, leaders of accelerators and startup hubs, angel investors, professors, advisors, and policymakers. While the value may seem small, consider that the face-to-face connections made during such trips become the nucleus of an international network with long-term benefits.

B) Improve Availability of Top Technical Talent

- More Successful Startups
  The purpose of this series of recommendations is to reduce Hong Kong’s Talent gap with regards to startups having access to high-quality technical talent.

  - Ease Work Visas, Immigration from Mainland China and Elsewhere
    Because of the availability of high quality technical talent in mainland China, the number one solution mentioned by many experts calls for the Hong Kong government to collaborate with the government of mainland China to ease the hiring of mainland Chinese technical talent by Hong Kong startups. It is understood that some work has already been done in this direction.

    Another big step forward would be the adoption of work visa regulations similar to Malaysia, whereby tech startups are given a special status allowing them to get work visas approved in as little as one week for the hiring of technical talent from countries other than mainland China. This is only an enabler, then comes the promotion work.

  - Support Startup Recruiting Programs in Countries with High Quality Talent
    Hong Kong should consider promoting startups jobs to graduates of software engineering and other relevant technical degrees in countries with a large pool of top quality technical talent. Russia, Ukraine, and several other Eastern European countries (as well as mainland China) produce a large number of high quality English-proficient software engineers, with Russia rated #1 by TopCoder. Yet they do not have many exciting startups or companies to join locally. For many of them Hong Kong can be an attractive country where to immigrate, especially given its fun, cosmopolitan culture.

  - Retain Foreign Graduates with Incentives to Join Startups
    While local graduates of Hong Kong universities are generally risk-averse and prefer stable jobs in a large corporations or professional service firms, foreign graduates often feel differently about startups and have access to a different set of job opportunities. Hong Kong may want to work on retaining foreign students graduating with a technical degree from local colleges and universities.

  - Promote Hong Kong Universities in Foreign Countries
    Hong Kong may also fuel the front of this funnel (foreign graduates in Hong Kong universities) by promoting Hong Kong universities in foreign countries. Relatedly, such a program in foreign universities may be combined with startup recruiting efforts.

  - Increase Graduates in Software Engineering and Other Technical Degrees

  - Increase Popularity of Tech startups as Career Choice
    Detailed programs for these two recommendations can be found above, under “Increasing Entrepreneurial Activity.”
C) Grow the Tech Angel Investor Community

› More Funded Startups and Serial Entrepreneurs

Less than half as many Hong Kong startups succeed in closing a “normal seed” round with private investors as do in Silicon Valley, New York City, and Singapore (see Section 3.2). In addition to increasing the attrition rate to above-normal levels, this negatively impacts entrepreneurial rates, including serial entrepreneurship.

It takes a long time for an ecosystem to build a private angel investor community. It requires hundreds of active individuals acting independently and most often part-time, each with a degree of experience and comfort with tech startup business models, investment structure, etc. In fact, it is more difficult and takes more time than building an institutional venture community. The most successful angel community, within the Silicon Valley startup ecosystem, was built organically through hundreds of successful exits from high-tech and tech over many years, making investors, tech entrepreneurs, startup engineers and other employees rich.

The Hong Kong ecosystem cannot wait for this to happen organically, as it would take well in excess of 10 years. Nor can it replace private seed funding by government grants and investments, because this essentially means supporting half of the ecosystem’s seed funding requirements for years while the number of startups grow rapidly, thereby requiring more government grants. This is not a sustainable solution.

One key problem is that tech startups are a very different type of business with a unique investment structure. The skills required to assess the potential of a startup are difficult to build, and investors often go through a difficult learning period (including loss of capital). Therefore, the great majority of high-net-worth individuals who have made their money outside of the tech industry stay away from investments in tech startups. In order to motivate many of them to become active tech angel investors who make several investments each year, the government needs to provide incentives and actively work to build the community.

Increase Available Capital and Number of Active Angel Investors

The objectives are to first to increase the capital available to seed investments, provide incentives for active angel investors to make more investments, and convert non-active investors into active ones.

• Matching Funds for Seed Funding

This program was well covered in the Priorities section (5.2.2) so only a few elements will be discussed here.

Regarding fund management, cost can be minimized by establishing matching funds under the management of a formally organized group of private angels and an experienced fund manager. This also builds up expertise in the community. Spreading the program across several angel groups creates a healthy structure where the preferences and personal biases of one fund do not end up systematically penalizing some startups and favoring others. A healthy competition can also be created by linking the growth or reduction in future fund allocation to each group’s return on investment.

An example of such programs is the one implemented by the government of the Province of Quebec (Canada) in collaboration with Anges Québec. Two interesting aspects of their program are that it allows private funds to be combined with government funds, and that it gives some discretion to the fund managers as to whether or not to match a specific investment in a startup.

• Tax Credits

Tax credits can also be an effective way to lead individual angel investors to make more investments. Programs making the tax credit fully reimbursable (as opposed to only deductible against taxes paid) are more effective. For instance, an angel investor with $1 million in capital may make 40 investments of $25,000 each. Providing 50% tax credits means $0.5 million will be returned to the investor, enabling him or her to make 20 more investments of $25,000, thereafter receiving $0.25 million in tax credits, and so forth. Overall this can effectively double the number of investments while ensuring “dry power” (cash available to new investments) remains in the hands of experienced angel investors even as they fully invest their original capital, without having to wait five years or more for an exit.

They may also help convert inactive angels into active ones. Every startup ecosystems in the world has stories of angel investors repeatedly showing up at startup pitches and angel group meetings without ever making an investment, or maybe just one investment. They are interested but the risk seems too high—either because they do not have the specific expertise or they want to diversify their investments and their total available capital is just too small to make many $25,000 investments (often the minimum required by a startup). A 50% tax credit would simultaneously cut the minimum investment and risk in half in the eyes of the investor and increase their ability to diversify.

Experts have reported that tax credits have been used successfully by different governments, namely in the U.S. state of Wisconsin and the Canadian province of British Columbia.
Reassignment of Government Budgets Allocated to Grants and Loans

Matching funds and tax credit programs offer many benefits over grants and loans. First, the investment decision is made by a private investor who has direct personal incentive to help the startup in any way possible, and to learn to make better and better investment decisions over time. Secondly, they remove the costly layers of bureaucracy, both for the startup having to apply for the loan or grant and for the government. Thirdly, they support a thriving private investor community while government grants and loans do not.

Increase the Number and Know-How of Angel Groups

The government may work with venture investors, their LPs, and high-net-worth-individuals to foster the development of angel groups focused on tech startups. Considering the IoT and FinTech strategies, a special interest should be placed on bringing in individuals who made their money in the consumer electronics and financial industries.

In combination with the seed marching funds program discussed above, several angel groups with their own government-sponsored fund can be created with experienced angels and/or early-stage venture investors as manager.

Some successful angel groups have a network of international chapters. They may be attracted to open a local chapter in Hong Kong through the provision of incentives such as temporary tax credits or financial support.

Increase Angel Group Know-How

Interactions with successful angel groups from top ecosystems should be supported through trips by Hong Kong angel group leaders to see their processes in action, and by inviting foreign angel group leaders to come to Hong Kong to provide advice. This constitutes a good opportunity to increase interactions with Shenzhen ecosystem stakeholders, through interactions with their angel groups.

D) Develop and Execute Sub-Sectors Strategies

As discussed in Section 6.2.2, startup ecosystems can grow more rapidly by riding the wave of a fast-growing tech sector. Section 2.1 discusses Hong Kong's strengths, which support selecting IoT and FinTech as strategic sectors in which to make long-term strategic commitments. This would mean dedicating a portion of the budget and efforts allocated to the above programs to IoT and FinTech. Rather than repeat them, only those worth a special mention are noted below.

- **Develop IoT and FinTech-Focused Conferences**
  At this stage Hong Kong still has the chance to develop one or two of the leading specialty conferences, if they are started quickly and well funded. This cannot wait very long because Singapore and other ecosystems are vying for a leading position in these sub-sectors and have already started to take action.

  In the case of IoT, explore the cost benefit of collaborating with Shenzhen ecosystem leaders, key stakeholders or large manufacturers. This conference may include a visit to impressive manufacturing and prototyping facilities in Shenzhen.

- **Develop Joint Entrepreneurship Programs and Courses**
  These would bring together students from business, software engineering, hardware engineering, life sciences, healthcare, and other programs.

- **Develop Incubator Programs with Large Corporation**
  Incubators would be specialized in IoT or FinTech and supported or matched with Consumer Electronics and Financial Institutions (and possibly healthcare organizations), as appropriate.

- **Organize Startup Competitions**
  For FinTech, encourage or require joint business (finance or other majors) and software engineering students or graduates. For IoT, encourage or require joint hardware engineering (electronics, mechanical, or other majors), software engineering students or graduates, and potentially from other degrees such as life sciences or healthcare.

- **Develop and Announce Strategy and Financial Commitments**
  For the startup community and Hong Kong's business and economic leaders to take note and be excited by the strategy, the government would need to develop a well-defined and well-funded strategy. This cannot not be rushed yet cannot wait very long, because Singapore and others are vying for a leading position in these sectors and have already started to take action.

- **College Exchange Programs with Top Ecosystems**
  Put a special emphasis on hardware engineering and colleges and universities based in Shenzhen.

- **Increase Interactions Between Shenzhen and Hong Kong Stakeholders**
  Support the development of informal and formal relationships between Shenzhen and Hong Kong stakeholders. In particular:
• Trips to top ecosystems including entrepreneurs, leaders of accelerators and startup hubs, angel investors, professors, advisors, and policymakers. Also invite Shenzhen stakeholders to come visit Hong Kong.

• Develop informal and formal relationships between Hong Kong and Shenzhen angel groups

• Develop a joint accelerator program with dual locations in Hong Kong and Shenzhen where participants spend half of their time in each location. Brinc is a good example, with a presence in Hong Kong, Shenzhen and Guangzhou.

E) Increase Entrepreneurial Activity

〉 more startups, more talent

Invest in Long-Term Programs to Increase Entrepreneurial Activity

• Instill Mindset Change Within the Education System

The great majority of top startup ecosystems studied, in addition to many others that are at an earlier development phase, have implemented programs to increase the entrepreneurial spirit of their population starting as soon as high school, if not primary school. They invest in education to help nurture the technical talent of the future from a young age and modify the education system so it does a lot more to stimulate creativity and innovation. Another way to foster the development of technical talent is to introduce compulsory coding in schools, similar to what is being done in Singapore, London, and New York.

The development and promotion of entrepreneurship programs at the college level can also have an impact. Whether within a joint degree or not, they should bring students from business and technical programs to team up together, increasing the development of relationships and comfort with working together.

While Hong Kong has also implemented such programs, Waterloo and Singapore have been more effective with their exchange and co-op programs. ACE’s Overseas College program in Singapore, described in section 4.4, and University of Waterloo’s co-op program discussed in the Waterloo report 3 are good examples of effective efforts.

The promotion of programs and courses related to tech entrepreneurship may benefit from special activities taking place during the student registration and course selection period to encourage students to consider and select them. GEN’s Startup Experience 4 is an example.

• Promote Entrepreneurship in the Population

Changing a population’s mindset with regards to entrepreneurship (a career path traditionally seen as risky) requires more than programs within the education system. They also include broader programs such as celebrating the success of entrepreneurs. Those efforts combine to increase not only the popularity of entrepreneurship but also tech startups as an exciting, desirable career path by changing the general attitude of the population towards them—namely parents and grandparents who influence students’ career choices. This will excite—and allow—more young talent to follow that path, while contributing to solving another of Hong Kong’s top issues: its technical Talent gap.

The government, community, and corporate leaders can share the responsibility for instilling a greater entrepreneurial spirit. Speeches may promote entrepreneurship as important for the whole community because it is an important source of economic growth. These efforts need to be supported by media initiatives to promote the importance of entrepreneurs and innovators as role models, motivate young people to start businesses, and encourage their community to support them.

• Encourage Commercialization of Academic IP

Academic institutions vary widely in how they structure the IP ownership of their professors, PhDs, and students. At the end of the spectrum is University of Waterloo where, as a firm rule, they do not take any portion of the IP, no matter their contribution to its development. Ecosystem leaders can go further by investing in the development of a commercialization office led by private stakeholders and bringing together entrepreneurs, investors, and inventors. This could be especially powerful for the development of products for the strategic IoT sector.

• Promote Mentorship and Instill a Strong Sense of Community

Tech people on a visit to Silicon Valley often mention being impressed with the degree of cooperation and mentorship between young entrepreneurs, successful founders, investors, and others. This degree of cooperation and sense of community is not limited to Silicon Valley. It has been used to describe other large and small ecosystems such as Austin, Boulder, Tel Aviv, and many others. Hong Kong can learn from those ecosystems, especially from those that have deliberately and skillfully bred that sense of community. Waterloo and Boulder definitely come to mind, but they are not unique. Instilling a sense of community is a grassroots movement, but also one that is promoted from the top, for instance, as later stage startup leaders offer their time for free to mentor younger entrepreneurs.

Improve Local Seed Funding

Improved seed funding lowers the risk perceived by young talent, helping to increase entrepreneurial ambitions and activity. It also positively impacts the rate of serial entrepreneurship.

3 For more information see the Startup Ecosystem Report on Waterloo, Canada at http://startup-ecosystem.compass.co/ser2015/Waterloo
4 For more information go to http://www.startupexperience.com/
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6
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Acknowledgement
and Partners
A project like the Hong Kong Startup Ecosystem Report can only be realized with enormous efforts from both the project team and external supporters. Several partners have invested significant resources into the project. Numerous advisors, founders, investors, and industry experts have given us access to their knowledge, networks, and time because they support our vision and wanted to move their ecosystem and the whole startup sector forward.

This section is meant to express our deep gratitude and appreciation towards anyone who made a contribution to make this project possible.

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Survey Participants and Interviewees

Thanks to the more than 11,000 survey participants and 200 interviewees—startup founders, investors, leaders of accelerators, incubators, and startup hubs, and policy makers—who trusted us by sharing their confidential information and expert knowledge with us. By providing us with solid quantitative data, they created the basis and the heart of our research.

Thank you for your support!
Partners and Collaborators

Global Partners

**CrunchBase**: Everyday investors, journalists, founders, and the global business community turn to CrunchBase for information on startups and the people behind them.

**Dealroom** is a data-driven marketplace for private capital, providing direct and secure access to the world's most sophisticated investors.

**Global Entrepreneurship Network** is a year-round platform of programs and initiatives created by the communities that celebrate Global Entrepreneurship Week each November.

**Microsoft Ventures** is a global initiative empowering entrepreneurs around the world on their journey to build great companies. We work with startups at every stage of maturity to provide the tools, resources, knowledge and expertise they need to succeed.

**Orb Intelligence** provides Business Information for B2B Marketing and Sales. Orb provides company information and smart algorithms as a service to marketing software vendors and B2B agencies.

**Startupbootcamp** is a global network of industry focused startup accelerators. We take startups global by giving them direct access to an international network of the most relevant partners and investors.

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**The University of Hong Kong (HKU)** is the oldest institute of higher learning in Hong Kong and also an internationally recognized, research led, comprehensive university. HKU strives to attract and nurture outstanding scholars from around the world through excellence and innovation in teaching and learning, research and knowledge exchange, contributing to the advancement of society and the development of leaders through a global presence, regional significance and engagement with the rest of China.

Previous Regional Report

**Waterloo**

**Communitech** is an industry-led innovation center that supports, fosters and celebrates a community of nearly 1,000 tech companies. They support companies at all stages of growth and development—from startups to rapidly-growing mid-sized companies and large global players—and have fun doing it.

Upcoming Regional Reports

**Australia**

**Deloitte** is the brand under which thousands of professionals collaborate across a network of offices in Australia to provide audit, economics, financial advisory, human capital, tax and technology services.

**Belgium**

**iMinds** inspires and trains people to turn their innovative ideas into successful businesses. iMinds’ Incubation & Entrepreneurship programs connect (future) entrepreneurs and researchers.

**Estonia**

**Startup Estonia/Estonian Development Fund** is designed to support the positive changes in Estonian economy, investment activity, and growth programs.

**India, Chennai**

**MaxBlox** is the provider of a Platform-as-a-Service (PaaS) enabling startups and independent software vendors to build, deliver, market and sell their ideas to the world.
Local Ecosystem Partners

Multiple Ecosystems

Built In is a global network of online communities for technology companies and startups. Headquartered in Chicago, USA, Built In operates Built In Chicago, Built In L.A., Built In Austin and Built In Colorado.

Preqin is the leading source of information for the alternative assets industry, providing data and analysis via online databases, publications and complimentary research reports.

Techstars is a global ecosystem that empowers entrepreneurs to bring new technologies to market wherever they choose to build their business. With 18 mentorship-driven accelerator programs worldwide, Techstars exists to support the world’s most promising entrepreneurs throughout their journey.

Amsterdam-StartupDelta, Netherlands

StartupDelta tackles challenges that hinder the growth of startups. It closely collaborates with the 10+ tech hubs to make the Netherlands the largest startup ecosystem in Europe. The Startup Foundation is an independent non-profit, run by entrepreneurs, for entrepreneurs. They support founders in building more successful startups.

Atlanta, USA

Fueled by the same entrepreneurial spirit that drives the folks we cover, Hypepotamus generates awareness about Atlanta’s innovative tech & creative community to retain local talent by connecting them with opportunities.

Austin, USA

Techstars: see “Multiple Ecosystems” above

Central Texas Angel Network is committed to provide startup capital and business mentorship in order to increase companies likelihood of success to the maximum extent possible.

Bangalore and Delhi, India

Microsoft Ventures: see “Global Partners” above

T Labs is India’s leading tech startup accelerator and early stage seed-fund focused on Internet and mobile. Powered by a panel of 100+ mentors, T Labs has invested in 43 startups in its last three years of existence.

Barcelona, Spain

Barcelona Activa is integrated in the Area of Economy, Enterprise and Employment, is the executive tool of the Economic Development policies of the Barcelona City Council.

Berlin, Germany

Gruenderszene is the online magazine with the hottest stories about and for the digital economy in Germany.

TechBerlin believes that entrepreneurship is a force for good and that a thriving startup community is essential to nurturing entrepreneurship. We’re building a platform to support the community, a place where it shares news, events and resources. Microsoft Ventures: see “Global Partners” above.

Boston, USA

TechHub is a unique environment where technology startups can start up faster. We nurture an international network of like-minded and focused tech entrepreneurs, providing places where they can work, meet, collaborate, network, learn and have fun. By getting the right people together in a physical space, good things happen. Techstars: see “Multiple Ecosystems” above

Chicago, USA

1871 is Chicago’s entrepreneurial hub for digital startups. Come to a place where you can share ideas, make mistakes, work hard, build your business and, with a little luck, change the world. Welcome to 1871.

China

InnoSpace is a leading incubation platform with its own angel fund in Shanghai, offering a total solution for global entrepreneurs ranging from capital raising, market/business development, HR solutions and technological guidance.

IPV Capital is a venture capital firm dedicated to delivering exceptional investment performance to early stage, high-growth technology firms in China. IPV brings together people, capital, and ideas to help realize the next great technology leaders of tomorrow.

Denver/Boulder, USA

Techstars: see “Multiple Ecosystems” above
Hong Kong Venture Capital and Private Equity Association

Insight Robotics

Widen Your Network & Dimension (WYND)

Jakarta, Indonesia

Kejora is a tech business incubator. They focus their investments on early stage startups related to telecommunication, media, and technology sectors.

Kuala Lumpur, Malaysia

MaGIC's mission is to catalyze the entrepreneurial ecosystem in Malaysia, bringing together the abundant resources from partners and communities alike.

AIM lays the foundation of innovation that inspires and produces a new generation of innovative entrepreneurs by creating wealth through knowledge, technology and innovation; with a mission to stimulate and develop the innovation ecosystem in Malaysia towards achieving Vision 2020.

MDeC's mission is to spearhead the nation's digital economy by enhancing Malaysia's status as a global hub and preferred location for ICT industries; and to catalyze a holistic ecosystem that promotes the pervasive use of ICT and connected communities.

London, UK

Centre for Entrepreneurs promotes the role of entrepreneurs in creating economic growth and social well-being. The Centre is an independent organization chaired by Financial Times columnist and serial entrepreneur Luke Johnson.

Los Angeles / Orange County, USA

Cross Campus is the leading collaborative workspace and business event venue in L.A. With a superior design & user experience, best-in-class event programming and execution, and a diverse community of innovative members, it has become known as “the nerve center of Silicon Beach.”

Mucker Capital is the leading pre-seed and seed stage venture fund based in Los Angeles.

Techstars: see “Multiple Ecosystems” above

Montreal, Canada

The International Startup Festival puts a new spin on entrepreneurship each year with content ranging from back-of-the-napkin ideas to champagne-popping exits.

Moscow, Russia

#tceh brings together startups, experts, and investors. It is a new form of infrastructure for business development, providing structure and expert advice to IT co-working.

Internet Development Fund initiatives (IIDF) provides funding and expert resources, as well as acceleration programs, for online startups in the early stages of development.

Russian Venture Company (RVC) is a government fund of funds and a development agency aimed at building a national innovation system in Russia.
DreamIt is an accelerator program providing synergistic innovation models that assist companies—from startups to multinational corporations—in de-risking their businesses quickly and cost effectively.

Rubicon strives to deliver real value through our extensive global network of institutional limited partners, angels, and advisors. Got challenges? We’ve got seasoned entrepreneurs and industry leaders ready to go to bat for you.

France Digitale is an initiative to help startups and investors join forces to create the French digital champions.

NUMA combines co-working, startup acceleration, events, and open innovation programs for companies, startups and communities at large.

TheFamily nurtures entrepreneurs through education, unfair advantages and capital.

50 Partners offers mentorship for innovative young startups, resources and expertise through an established network of successful entrepreneurs.

INcube is at the "Convergence Point of Innovation" where international investor relationships and our Intesa Sanpaolo Start-Up Initiative meets the innovation needs of mature corporations, as well as the commercialization needs of startups.

Start-Up Chile’s goal is to increase the number of customer-validated and scalable companies that will leave a lasting impact on the Latin American ecosystem.

The Brazilian Startup Association (ABStartups) is a nonprofit entity that has more than 3,000 startups registered and the mission to promote the Brazilian entrepreneurship market globally.

Start-Up Brazil is a national program for startup acceleration, a federal government initiative created by the Ministry of Science, Technology and Innovation (MCTI) with Softex, in partnership with Brazilian accelerators.

The Startup Farm is the bridge between entrepreneurs and the success they seek, supporting them through our accelerator program and other initiatives.

Microsoft Ventures: see "Global Partners".

TechAlliance leverages and implements industry leading enterprise solutions to help you rise above your competition.

GSVlabs is a global innovation accelerator that supports the growth of talent, startups, and corporate partners.

Start-Up Nation Central is inspired by the story of how Israel made the leap from being an isolated nation to an international innovation powerhouse SNC will plug you in the heart of Israel’s innovation ecosystem.

Startup Canada are entrepreneurs working together to build an environment and culture for entrepreneurial growth and success.
Vancouver, Canada

Startup Weekend Vancouver is part of the Up Global community and brings entrepreneurs, local leaders, and friends together over five days to build momentum and opportunity around your community’s unique entrepreneurial identity.

Waterloo, Canada

University of Waterloo is Consistently ranked Canada’s most innovative university. University of Waterloo is home to a wide range of advanced research and teaching. From quantum computing and nanotechnology to clinical psychology and health sciences research, Waterloo brings ideas and brilliant minds together, inspiring innovations with real impact today and in the future.

Wilfrid Laurier University is devoted to excellence in learning, research, scholarship, and creativity. It challenges people to become engaged and aware citizens of an increasingly complex world. It fulfills this mission by advancing knowledge, supporting and enhancing high-quality undergraduate, graduate, through professional education, and by emphasizing co-curricular development of the whole student.

BDC Capital is the largest and most active early-stage technology venture investor in Canada, BDC Capital works with promising entrepreneurs and private sector investors to build outstanding Canadian companies.

Region of Waterloo

City of Waterloo

City of Kitchener

Startup Package Partners

To reward participants of our online survey, multiple great companies agreed to offer huge discounts on their product:

New Relic is a monitoring software for your web or mobile application. Once you have your first product up and running, it saves you pain and frustration.

Zendesk is a customer support application. Being responsive and in touch with your customers makes a big difference no matter in what stage your company is.

Olark is a lightweight chat tool that you can integrate on your site or application within a few minutes. It’s great for engaging and learning from your customers right when they use your product.

Close.io is a intuitive CRM with integrated calling, emailing, and search capabilities. You can get setup and start calling within minutes. Close.io also offered their guides on Outbound Startup Sales and Inbound Startup Sales.

Pipedrive is a low-cost multi platform CRM for small teams. It has great reporting and sales forecasting.

Iron.io is a hosted message queue service that is at the core of many modern web applications.

Wix is a website builder for quickly testing new value propositions with professionally looking websites and landing pages.

Foundersuite is a comprehensive compilation of tools and legal documents to help early startups get off the ground.

Survey Promotion Collaborators

Our project received great support from more than 60 local partners distributed across more than 40 ecosystems. We could not have done it without them. They are leaders of accelerators, incubators, startup hubs, and VC firms who made great efforts to spread the word about the project in their community. Thank you to:

Brazil
• AceleraTech
• Acelera Partners
• Aceleradora
• Beita
• Wayra

Canada
• Betakit
• Launch Academy

China
• GWC
• Hax Accelerator
• InnoSpace
• Legend Holdings
• Tencent Incubator

Chile
• Corfo
• LatAm Startups
Denmark
- Trends online

Estonia
- Ajujaht
- BuildIT
- EstBAN
- EstVCA
- Garage48
- Mektory
- Prototron
- Startup Leaders Club
- Startup Wise Guys
- Tehnopol Startup Incubator

Germany
- RKW Kompetenzzentrum

India
- 10 000 Startups
- ispirit

Indonesia
- Daily Social
- Indonesian E-Commerce Association

Israel
- Jerusalem City Administration
- Tel Aviv Global City Administration

Netherlands
- Dutchstartupmap.nl
- Startupjuncture

Poland
- bitspiration

Russia
- Russian Startup Ranking
- Skolkovo

Singapore
- 500 Startups
- TechinAsia
- sph plug and play

Spain
- What's new

Turkey
- Tohumte

United Kingdom
- Tech City
- Enterprise Nation
- Startup Britain

USA, Los Angeles
- LA TechDigest
- BixelExchange