MaRS Market Insights









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Background

Canada has a robust startup ecosystem. In <u>Startup Genome's Startup Ecosystem Report</u> <u>2012</u>, three Canadian cities (two in Ontario) were ranked among the top 20 most active startup scenes in the world. These numbered among seven cities in the US, one in Israel, three in Europe and several in Asia Pacific. While Canada has the reputation of having excellent innovation capabilities and has witnessed a healthy growth of startups, it is facing similar challenges as Israel and other European countries on the top 20 list. These challenges include a comparably small domestic market and limited early-stage funding support for startups.

To help small- and medium-sized enterprises (SMEs) overcome these challenges, governments in Europe and Israel are moving aggressively to expand market opportunities in high-growth emerging markets. In short, they are focusing on China.

Between 2000 and 2010, EU exports to emerging markets (China, Russia, Ukraine, India, Brazil and South Korea) increased from 17% to 26%¹. It is worth noting that, according to the EU SME Centre in China, 99.7% of all businesses in the EU are SMEs². Similarly in Israel, where 99.7% of all businesses are SMEs³, trade relations with China are also strengthening. The total trade between Israel and China was valued at US\$6.7 billion in 2010⁴, compared to US\$1 billion in 2001.⁵

In 2009 in Canada, the total value of exports from SMEs to China was much less than the value of exports to emerging markets in India and Russia, and was also less than the value of exports going to Saudi Arabia, Indonesia and Turkey⁶. In 2011, still only 9.5% of all SME exports (by volume) went to China.⁷

Governments in Europe and Israel have identified China as the priority market for SMEs. The number of government-funded organizations designed to provide services for SMEs entering China's markets have surged across the continent. As a result of the strong support of various governments and the increasing global outreach efforts of startups, many startups from outside of China have created a big splash in the country in the last three to four years. These include:

- Boston Power (US), US\$125 million, 2011: In late 2011, the Chinese government stepped in with a package of US\$125 million in venture capital, low-interest loans and grants. Now Boston Power is building a factory in China that can make enough batteries for 20,000 electric cars, and is also building a new R&D and engineering facility⁸
- Pegasus Technologies (Israel), US\$60 million, 2010: Chineseowned Yifang Digital acquired Israeli Pegasus Technologies for the amount of \$60 million. The Yifang-Pegasus deal was the first time an Israeli company was acquired by a Chinese company⁹
- Jolla (Finland), 2012: Finnish mobile-phone startup Jolla signed a sales and distribution agreement with Chinese mobile-phones retail chain D.Phone Group. With the deal, D.Phone launched sales and distribution of Jolla smartphones in China in 2013, using D.Phone's vast network of over 2,000 retail stores to reach Chinese consumers¹⁰

In contrast to these deals, we have seen few Canadian startups win attention of this scale in China's market.

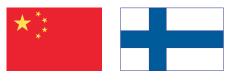
Chart 1 / European and US government-funded organizations with sole focus to provide China market-related services for SMEs



he EU SME Centre provides business support to SMEs from the EU in order to facilitate access to China's markets.

Germany's second-largest Chamber of Commerce, the Federation of German SMEs (ZDH) represents it's members in the ZDH Chinese Cooperation Project with ACFIC,* SEQUA[†] and the German Ministry for Economic Cooperation and Development.





Under the leadership of the Ministry of Commerce,[†] the Finnish SME Working Group facilitates mutually beneficial trade cooperation between Finland and China by promoting Finnish SME exports to China and investments in the Chinese economy.

The American Chamber of Commerce in Shanghai (AmCham Shanghai) opened a SME Centre in 2012 to help boost the competitiveness of SME's from the US in the Chinese Market.



All-China Federation of Industry and Commerce / + Foundation for Economic Development and Vocational Training, Germany / + Ministry of Commerce, People's Republic of China

During our interviews for this paper, when Canadian startups were asked about their interest in entering China's market, the most common response was, "it is a huge and daunting market–I don't know where to start or how to access it!" Intellectual property (IP) protection also stands out as a top concern for most startups as they fear that their IP or trade secrets might be stolen by Chinese companies.

As the first publication of the MaRS Going Global series, this report seeks to address this knowledge gap. In particular, we aim to answer the following questions:

- Why China is a strategic market opportunity for Ontario startups?
- What does China need and how do they prefer to conduct business with foreign startups?
- What are the success factors for entering China?
- What are advantages of Ontario startups in entering China's market, and what are the benefits?
- What and where are the market opportunities for Ontario startups in China?
- · How can Ontario startups access these markets?

The report will be released in three parts over 2014. Part 1 addresses the first four questions above. Part 2 (summer 2014) and Part 3 (fall 2014) will discuss market opportunities across different sectors in various regions in China. They will also examine best practices for deal negotiation and sector-specific IP protection.

"It is a huge and daunting market –I don't know where to start or how to access it!"

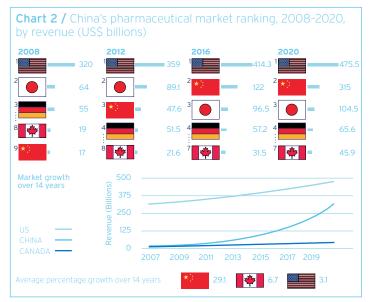
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China: A strategic market opportunity for Ontario startups

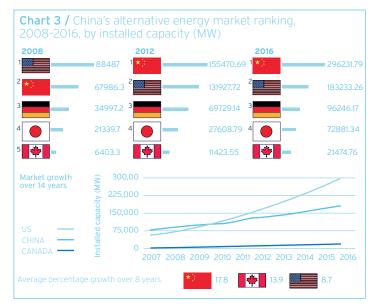
China presents a key opportunity for Ontario startups due to its huge markets, growing economy and the investment by the Chinese government in fostering innovation.

HUGE MARKET DEMAND

- Total GDP: It is estimated that China will overtake the US in terms of its GDP and become the world's biggest economy by the end of 2014 $^{\rm m}$
- R&D investment: At the current rate of R&D investment and economic growth, China could surpass the US in total R&D spending by about 2022¹²
- Healthcare expenditure: Spending is projected to have grown from US\$357 billion in 2011 to US\$1 trillion in 2020. From pharmaceuticals to medical products to consumer health, China numbers among the world's most attractive markets, and is by far the fastest growing of all the large emerging markets¹³
- Smart grid investment: China's investment in the smart grid market surpassed that of the US in 2013, making China the world's largest smart grid investor by far. This accounts for more than a quarter of the worldwide smart grid investment at US\$4.3 billion (of US\$14.9 billion worldwide)¹⁴
- Solar market: China became the top solar market in the world in 2013¹⁵



Note: Pharmaceutical market size is determined by market value in terms of national revenue. Revenues lend to be based on retail outlet sales of medical products (e.g., sales of over-the-counter and prescription medications in drug stores). The pharmaceutical market for China refers to the market for Western medicine; it excludes active pharmaceutical ingredients (APIs), traditional Chinese medicine (TCM), biologics and herbal medicines. Source: GlobalData, Country Focus [accessed May 23 2014]; the Association of the British Pharmaceutical Industry, Global pharmaceutical industry and market [accessed May 23 2014]



Note: The top six most attractive renewable energy markets in 2014 are the US, China, Germany, Japan, United Kingdom and Canada, according to the Ernst & Young Renewable Energy Country Attractiveness Index (RECAI). The size and scale of these markets (and subsequent ranking) were determined by their historical and forecasted generation capacity, indicated by installed capacity of all electricity-producing assets in megawatts (MW). Source: Bloomberg New Energy Finance, Market Sizing (accessed June 6 2014); Ernst & Young, RECAI Issue 40, 2014

 Electric vehicle (EV) market: China has set a sales target of approximately 1.5 million units and a stock target of over 4 million units by 2020, surpassing US targets for the same year. As of 2012, China was already spending more than most EVI countries on EV R&D¹⁶

CHINA IS FOSTERING INNOVATION

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In addition to this enormous internal market demand, the Chinese government is working to spur innovation across sectors, and to do it now-without red tape or concern about economic turmoil. The implications for startups are numerous:

 An unprecedented ecosystem for innovation: China's innovation objectives are unmatched due to the mounting challenges of slowed economic growth and its urgent need to switch from a manufacturing-based economy to one that is innovation-based. The Chinese government, at all levels, through favorable policies and funding resources, supports the growth of high-tech SMEs in the hope of significantly enhancing its own innovation capacity.

According to China's Ministry of Finance, Beijing has budgeted RMB 11.6 billion (CDN\$2.3 billion) to specifically support hightech Chinese SMEs.

Additionally, China is rolling out the red carpet for foreign hightech startups with lucrative incentives. A good example is Boston Power-on top of the US\$125 million funding from China, the founder was invited to meet with China premier Li keqiang. The Canadian biotech startup, Can-Sino Biotechnology Inc. (founded in 2009 and located in Tianjin), received RMB 30 million (CDN\$6 million), a no-obligation government grant from 2010 to 2012, and low-cost office and factory facilities. (The company received series A funding of US\$10 million from Lily Asian Venture in 2013). These types of early funding support are crucial for startups to survive and grow

• Active early-stage investing: China is increasingly investing in early-stage businesses. The years 2012 to 2022 will be a golden decade for foreign high-tech startups inside the country due to this favorable macro-investment environment. Investors will be on a massive hunt for high-quality investment projects from both home and abroad

In 2009, China established the state-owned fund of funds, with an unprecedented sum of RMB 60 billion (CAN\$12 billion). In May 2014, the executive meeting of the State Council also decided to set up a national venture capital fund and pledged to double the amount of government-led venture capital for emerging industries in a bid to ease the financing difficulties of SMEs¹⁷.

- A strong exit environment: China's SME board, a sub-board of the Shenzhen Stock Exchange for the listing of SMEs, has seen fast growth since its launch a decade ago. The number of listed companies is 19 times higher than in 2004, and the combined market value has increased ninety-fold. With an emphasis on private and high-tech firms, the SME board has become a unique and indispensable segment in China's multi-tier capital market system, according to the bourse¹⁸
- Improved environment for entrepreneurs: With more relaxed regulations governing foreign and outbound investment as well as the two-way opening of capital markets, cross-border investment has become much easier. There are also rumors that China will open the market to 100% foreign ownership in private healthcare facilities, though no official word has been given. Foreign ventures are already allowed to hold 70% stakes in such facilities¹⁹



"China's SME board has seen fast growth since its launch a decade ago."

Commissioned by the National Development and Reform Commission, Administration Measures on Outbound Investment was released March 16, 2009. These measures generally make the outbound investment approval process quicker, clearer and (for smaller investments) easier with which to comply. At the same time, they allow the government to retain control of the decision-making process.

Effective March 1, 2014, the requirements have been lifted on corporate registrations that down payments must reach 20% of the total registration capital and that the rest must be put in place within two years. This means that setting up companies has become easier and less costly. In January 2014, the State Council amended 32 laws and regulations for the Shanghai Free Trade Zone, further opening access for foreign investment.

 Growing support of intellectual property (IP) protection: China has become noticeably more active in its support of IP protection. Chinese companies are gaining a savvy understanding of issues surrounding IP, and regard inadequate IP protection more as a business toll than legal dispute

Tougher IP protection

The Chinese government ministry charged with prosecuting IP violations recently announced that it handled 2,347 cases in 2012. This number is up almost 40% from 2011, and represents a resolution of \$2 billion in violations. There have been increasing cases where foreign companies successfully sued Chinese companies for IP infringements. In Jiangsu province, the local government in Suzhou is building a 500,000-square-metre facility next to its innovation park. The idea is to bring together IP-related agencies and leading technology companies to elevate IP issues in importance, while improving the processing and quality of patent approval and protection. Efforts such as these, while localized, reflect a growing appreciation for the importance of protecting IP.²⁰

What do China's markets need? Everything!

In March 2011, China released its twelfth five-year plan (2011-2015). This plan, which emphasizes "higher quality growth," identified seven strategic industries in which China would like to develop and build innovation capabilities in order to meet with its goal of keeping sustainable growth and advancing the country in the global value chain.

THE SEVEN STRATEGIC INDUSTRIES INCLUDE:21

- High-efficiency energy saving, advanced environmental protection, recycling usage, reusing waste products (e.g., coal cleaning, seawater)
- Bio-pharmaceuticals, innovative pharmaceuticals, bio-medicine, bioagriculture, bio-manufacturing, marine biology
- Next-generation mobile communications, next-generation internet core equipment smart devices, Internet of Things, integration of telecoms/cable TV/ internet networks, cloud computing, new displays, integrated circuits, high-end software, high-end servers, digitization of culture and creative industries
- Aerospace and space industries, rail and transport, ocean engineering, smart assembly
- Nuclear power, solar power, wind power, biomass power, smart
 power grids
- New function materials, advanced structural materials, highperformance composite materials, generic base materials
- Electric hybrid cars, pure electric cars, fuel cell cars

China aims to increase these industries' share of GDP from about 1% today to 8% by 2015, and 15% by 2020. This presents huge market potential for domestic and foreign businesses alike.

Demand for disruptive technologies is especially urgent in the sectors of cleantech, biotechnology/pharmaceuticals, and smart city, due to the following pressing social challenges:

• Environmental degradation: It is severe. Pollution poses not only a major long-term burden on the Chinese public, but also an acute political challenge to the government. Public health is deteriorating. Pollution has made cancer China's leading cause of death, according to the country's Ministry of Health. Ambient air pollution alone is blamed for hundreds of thousands of deaths each year. Nearly 500 million people lack access to safe drinking water²²

• An aging population and urbanization: The proportions of urban and elderly in the Chinese population are predicted to continue to increase. The McKinsey Global Institute (MGI) projects that 61% of China's inhabitants will live in urban areas by 2020 (up from 52% in 2012) as 142 million people migrate from the countryside to the cities. The population of people aged 65 and older will almost double by 2030, to 223 million from the current 122 million. As a result, growth in the demand for healthcare will remain strong²³

In these areas, the Chinese government has undertaken to create favorable policies and provide generous funding support in order to successfully develop leading technologies and expand commercial capabilities.

This said, during our research process, we noticed that due to the urgent need for commercialization success, most Chinese companies and investors are interested in later-stage technologies that can help them reap quicker market profits. Although this is true in many cases, we wish to assure Ontario startups that China does embrace all stages of technology, be they from an early-stage university spin-off or an evolving business that has secured some customer traction. China recognizes that partnership is the key for success.

We will examine this in more detail in the upcoming Parts 2 and 3 of this report, to be published in the summer and fall of 2014.



Collaboration models: Chinese companies, institutions and foreign startups:

The following four types of models are mostly observed in international collaboration between Chinese companies, institutions and foreign startups:

- Overseas venture capital (VC) investment
- Joint R&D

Technology transfer

Talent attraction



Chart 4 / China's overseas VC investment in the US, Europe,

CHINA'S OVERSEAS VC INVESTMENT

According to Capital IQ, in 2013, the total value of China's overseas VC investment in the regions above was US\$1,073.02 million. This represents a 395% increase from 2010, when its total investment was valued at US\$216.92 million. US SMEs benefited from 71% of the value of the 2013 investments, while European SMEs received 28% of it. Unfortunately, Chinese VC investors made no deals with Canadian SMEs in 2013.

The US also benefits from China's investment in the life sciences sector (specifically, biotechnology and pharmaceuticals), and both American and European SMEs saw investments in industries outside of ICT and life sciences that Canadian SMEs did not.

While we expect to see increasing outbound VC investment from China in the coming years due to the country's eased outbound investment regulations and soaring demand for innovative technologies, the value of China's overseas VC investment is less than 1% of the total value of VC investment inside China. According to Ming Xu, the managing director of <u>Yanyuan Capital</u> in Beijing, "A very important reason for this is China's strict regulations

on any outflow currencies. If a Chinese company wants to invest in companies or technology in foreign countries, you need to get government approval for the foreign currency quota. This all presents challenges and adds difficulties for China outbound investment in foreign startups."

In reality, most Chinese companies and investors prefer to attract foreign startups to China and do business in China jointly. This type of collaboration will happen in the forms of technology transfer, joint R&D or partnerships.

TECHNOLOGY TRANSFER, JOINT R&D, AND PARTNERSHIPS

Technology transfer, joint R&D, and partnerships are the most common forms of collaboration between foreign startups and Chinese companies or research institutes. These are also the types of collaboration activities that are favored and supported by various levels of government. Any foreign startups that become involved in these types of international collaboration in China will receive tremendous support from central, regional and municipal governments, and even from the incentive policies of individual science and technology parks.

The choice to go with technology transfer, joint R&D, or partnership is based on the unique conditions and development needs of the startup itself. These needs may reflect the stage of its products, the level of IP intensity, its funding needs and its requirements for partners. As in any successful collaboration, the two parties should achieve the goal of complementing each other as much as possible and arriving at a win-win situation.

When it comes to collaborating with foreign startups, many Chinese companies prefer technology transfer, but it carries risks for foreign startups. Since trust has yet to be built and it is not uncommon for some Chinese companies to manipulate their financial figures to avoid paying royalty revenues to licensors, foreign startups are cautious about embracing this type of collaboration. This also explains why we are seeing an increase in one-shot deals

from China. However, if the local partner is a listed company or is referred through a trusted third party, the level of caution would be significantly reduced.

If the product is highly advanced and far from commercialization in the Chinese market, it is most likely that joint R&D would be the means of collaboration. If a large number of technologies in the same sector came along, China would consider establishing an industry cluster R&D centre, very likely backed by different levels of government.

Industry cluster: China-Israel Industrial Park - Water Treatment

An excellent example of an industry cluster R&D centre is the <u>China-Israel Industrial Park - Water Treatment</u> in Dongguan, which was established in 2012. The industrial park is called "Water Valley" in China and its planned size is 253,460 square meters, with a total investment RMB 1.5 billion (CAN\$300 million). The goal is to combine Sino-Israeli water treatment technology, redevelop the integrated solution by refining key elements and form a full water treatment technological system suitable for the actual water conditions in China. Collaboration of this scale is not uncommon. And strategies can be borrowed from this example for Ontario startups.

The most common collaboration model is a partnership in which both sides enjoy their own advantages, have clearly defined terms and share profits. To gauge how trustworthy a venture may be, it can help to examine its track record with partners. This approach can be especially useful when dealing with bigger potential Chinese partners. As McKinsey & Company put it in 2013, "It's reasonable to conclude that a Chinese company involved in multiple joint ventures with the same leading multinational partner has survived several rounds of close-up diligence from an experienced operator. It may still have issues, but it was reliable enough to motivate the foreign company to form additional joint ventures rather than turn to other potential partners."²⁴

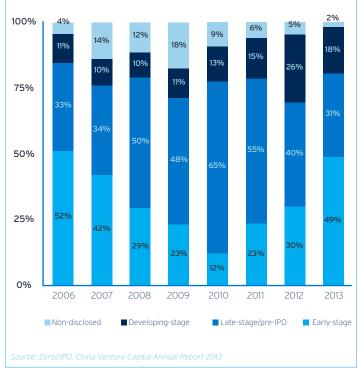
In Parts 2 and 3 of this report, we will discuss in more detail how to choose the best collaboration model based on a company's industry sector and specific situation.

No matter which type of collaboration model is leveraged, foreign startups can access VC funding in China. The country's VC industry is developing at an unprecedented pace. The number of early-stage VC investments in 2013 rose 78% from 2012. It is worth noting that sometimes foreign startups attract more investor attention with a referral from the Chinese government. Why? Government plays a leading role in helping Chinese companies build innovation collaboration with foreign companies. The first contact of many foreign startups in China is with the government.

TALENT ATTRACTION

Ontario startups should be aware that China offers foreign talent incentive policies that provide generous funding support for

Chart 6 / 2006-2013 China VC investment by stage (number of deals)



startups to establish business in China. The most famous among these, the <u>1000 Talent Plan</u>, initiated by the central government of China, provides one-time reward funding that ranges from RMB 1 million (CDN\$200,000) to RMB 5 million (CDN\$1 million) depending on the region.

The intention of the 1000 Talent Plan is to attract foreign experts, or returning Chinese talent, in the next five to 10 years to work in China and promote innovation and technology development primarily in the high-tech and financial industries. As of June 2014, 196 non-Chinese foreign experts had been admitted into the plan²⁵. Foreign non-Chinese candidates who are eligible for a "highly-qualified" status in the program must be under the age of 65 and, typically, hold a doctorate degree.

Beijing plans to recruit 677 foreign experts in 2014 to promote innovation and development in science and industry. Of these 677 foreign workers, 280 will be technology experts sought by universities, research institutes and enterprises for research and development. Half of these 280 experts are needed in emerging industries, such as biological medicine, information, new energy and materials, environmental protection and engineering.²⁶



Government plays a vital role for entrepreneurs in China

Government funds provide support to entrepreneurs through different channels. For foreign startups, as long as they meet the following three criteria, they will benefit from this key support to enter China's markets.

THEY MUST:

- Work in the seven strategic industry sectors (see page 8)
- Have a collaboration relationship with a Chinese partner(s)
- · Have a presence in China

INTERNATIONAL COLLABORATION FUNDS

This type of fund is set up under the framework of China's bilateral science and technology memorandums of understanding with other countries. Each year, the fund focuses on a different sector. The grant amount ranges from CDN\$100,000 to CDN\$500,000. The Ontario-China Research and Innovation Fund is a good example of this type of funding support.



SCIENCE AND TECHNOLOGY PARKS AND ECONOMIC AND TECHNOLOGICAL DEVELOPMENT ZONES

When foreign high-tech startups enter China, the majority will likely set up in a science and technology park (STP), or economic and technological development zone (ETDZ). The first STP was <u>Zhongguancun Science Park</u> in Beijing. It has become China's Silicon Valley. By the end of 2013, China had set up 87 additional industrial parks.²⁷ According to <u>China Ministry of Commerce</u>, currently there are 215 ETDZs set up in China. The bulk of STPs or ETDZs are highly concentrated on the east coast (often in or near Beijing, Tianjin, Shanghai and Shenzhen). The east coast is equipped with many innovation resources to actively promote their regions such as highly educated workers, clusters of universities and research institutes, and low transportation costs.

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Examples of STP or ETDZ hubs include:

- Wuhan East Lake High-tech Development Zone: Optoelectronics
- Zhangjiang Hi-Tech Park in Shanghai: Integrated circuits and pharmaceuticals
- Tianjin: Biotech and new energy
- Shenzhen: Telecommunications, medical devices, biotech
- · Zhongshan: Medical devices and electronics

The STPs contributed 7% to China's GDP and accounted for close to 50% of all of China's R&D spending. $^{\rm 28}$

In addition to government's incentive policies toward STPs and ETDZs, local governments often offer additional assistance to qualified high-tech startups in the form of in-kind subsidies, free grants, tax relief and financial support.

GOVERNMENT GUIDANCE FUNDS

The Chinese government has established government guidance funds (GGFs) that aim to leverage early-stage investment funds from corporate and private investors. According to Zero2IPO Research, by the end of Q3 2013, China ran 222 GGFs, with a total investment scale of up to RMB 103.74 billion (CAN\$20 billion).²⁹

The first STP was Zhongguancun Science Park in Beijing.

Ontario startups: How to make initial contact with China

Ontario startups have multiple options to reach out to China. These routes include friends, trade shows, conferences, delegation visits and so on. Currently, many organizations actively help Ontario startups explore and connect to China's market opportunities.

THESE INCLUDE:

- Federal bodies such as <u>The Canadian Trade Commissioner</u> <u>Service- China</u>
- Provincial bodies such as <u>MEDTE/MRI</u> and its <u>Ontario-China</u> <u>Research and Innovation Fund</u>
- MaRS Discovery District
- Invest Ottawa's <u>ZDG International Incubation Centre</u>
- <u>Health Technology Exchange (HTX)</u> (for the medical device sector)
- Canadian Digital Media Network's <u>Soft-Landing Program</u>
- Canada China Business Council (CCBC)

The technology transfer offices of several Ontario universities and academic institutions have already set up branch offices in China to help commercialize their technologies locally. These offices include:

- <u>WORLDiscoveries®</u> (offices in Nanjin and Tianjin): Run under a partnership between the University of Western Ontario, Robarts Research Institute and Lawson Health Research Institute
- <u>WatCo</u> (office in Tianjin): Operated by the University of Waterloo

KEY SUCCESS FACTORS

The following are key success factors for Ontario startups entering China:

- Secure your IP: Chinese markets carry IP-related risks, but success stories abound. If you are thinking about entering China, ensure you register your IP there first. Consider these strategies that some companies have adopted and consultants are recommending: ³⁰
- Do not share your most sensitive intellectual property
- · Send more of your own employees to oversee manufacturing

- Partner with a smaller firm that is less able to become a rival
- Structure joint ventures carefully so that the foreign firm has more control
- Partner with local companies that value long-term growth: Look for a partner who explicitly states their strategic goals. Those who value long-term growth over short-term profits tend to be more patient and more willing to invest in early stage startups
- Have a founder with Chinese background or partner in China: Your founding team should have at least one member with Chinese background or find a trustworthy partner in China. This is vital for companies venturing into a new market and trying to gain a solid foothold. Without language or cultural barriers, it is easier to quickly learn about the local market and forge partnerships based on mutual trust. Of the Ontario companies we interviewed who were enjoying success in China, almost all had a team member of Chinese ethnicity
- Recognize that government relationships are key: The Chinese government plays a significant role in SME innovation and cooperation. Managing a good relationship with the government does not mean behind-the-scenes operations. Instead, it means getting to know the related policies and regulations, as well as grants and funding opportunities from all levels of governments. It also means leveraging this sound relationship to build industry connections. Many startups feel uninformed about this process and not sure how to take the first step. This underscores the importance of a good local partner who can help companies go through the initial stage



Mayors and premiers

One interesting "lost-in-translation" item is the role of mayors and premiers. In China, regional politicians carry weight and can make things happen quickly. In Canada, mayors and even premiers wield no independent power. They can make recommendations, but these are filtered through councils and tenders. There are far fewer constraints in China.

The Chinese often make the mistake of overestimating the power of regional politicians in Canada, and by the same token, Canadian businesses should not underestimate the role of Chinese political counterparts. It is important that deals be brokered both from the bottom up (company to company/customer) as well as from the top down (through federal, regional and municipal leaders, using Ontario and Canadian government facilitators from The <u>Canadian Trade</u> <u>Commissioner Service</u> and <u>MRI/MEDTE</u>).

Remember–location, location, location: Choosing the right place to set up business is critical. Given that China is a geographically vast and socially complex country, your location can help make or break you. Thanks to a strong appetite for innovation, almost all of the major regions in China are welcoming innovative companies with open arms. How to identify and choose the right location? There are a few factors to bear in mind:

- The local industrial base must be able to meet the demand for technology industrialization
- Science and technology parks (STPs) or economic development zones (EDZs) with a longer history of opening to foreign investment are more experienced in dealing with foreign companies, IP protection and contract disputes. In addition, they enjoy the support of many government policies. For example, Tianjin City and Suzhou City have vibrant biotech industry clusters. (We will examine market opportunities in different regions later in Parts 2 and 3 of this report)
- Areas with a higher concentration of universities and research institutes (e.g., Beijing-Tianjin, Yangtze River Delta, Pearl River Delta) offer a better talent pool
- Some local governments do not "walk the walk" but simply "talk the talk." Find out about the local business ecosystem
- Be prepared for the system to not work perfectly: Recognize that systems and institutions in developing countries may be imperfect. It helps to complain less and to try to understand the underlying circumstances



Thanks to a strong appetite for innovation, almost all of the major regions in China are welcoming innovative companies with open arms.

Tianjin CanSino Biotechnology Inc.

Challenges and benefits of operating in a developing country

When applying for the phase I drug clinical trial in 2012, Canadian startup Can-Sino Biotechnology found China's industry regulations for Phase I drug clinical trials almost as strict as that of the US Food and Drug Administration (FDA) for Phase III clinical trials. The reasons were that drug development in the last three decades in China had been dominated by generic drugs and the regulatory controls were geared accordingly. Despite this, Can-Sino Biotechnology managed to finish six clinical trials and the company's market valuation reached CDN\$50 million within four years. This type of growth is unimaginable for a biotech startup in Canada.

With these China success factors in mind, remember that the most important first step is to conduct your market due diligence. Not only do you need to evaluate market reports, but speak to people who are in that market. There is still a fair amount of risk in the Chinese market for startups to take into account, including censorship, the difference in the rule of law and limited IP protection. In Business Insider Australia, Rebecca Fannin, VC and journalist, recommends that startups in China do "something really unique that can't be copied easily" or develop a product that tech giants will "want to buy in a big multi-million dollar sum." ³¹

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Ontario holds advantages

ONTARIO STARTUPS HAVE ADVANTAGES WHEN CONSIDERING AN ENTRY INTO CHINA:

- Ontario has the biggest Chinese population and the most culturally diverse population in Canada-more than one in four residents were born outside the country. This cultural diversity presents huge potential for building business or research networks and sharing market information
- The impact of Canada's research ranks sixth in the world. It places ahead of other top-producing scientific countries such as Australia, China, Germany and Japan, and ranks right behind the US and the UK. 47% of Canada's R&D spending takes place in Ontario.³² Ontario's innovation capabilities excel in areas such as biotechnology, medical devices and cleantech, which are key sectors strongly supported by China
- The Ontario government, especially MRI/MEDTE, supports Ontario startups in reaching China's market opportunities. The value Ontario places on the relationship it has with China is evidenced by the fact that China and the US are the sole countries where the government of Ontario has two International Marketing Centres (in China, they are located in Canada's embassy in Beijing and consulate general offices in Shanghai)

Also of help to Ontario entrepreneurs is that China regards Canada as friendly and easy to get along with, and there are no prejudices to overcome.

"Ontario has the biggest Chinese population within Canada."

Benefits of entering China's markets

Entering China's markets offers plenty of benefits for Ontario startups.

THESE INCLUDE:

- New market opportunities: Technologies with a limited market application in Canada might be desperately needed in China. Profits from this new market could enable continued R&D, which would in turn spur more market opportunities. For example, in the case of Can-Sino Biotechnology, a licensing deal with McMaster is enabling the research team to carry on their vaccine research that otherwise would have been dropped due to poor commercialization opportunities in Canada
- Sustainable investment: In watching China's cooperation with Israeli and European SMEs, we can see that in order to stay on top of market competition, Chinese companies are more interested in investing in sustainable innovation capacity than a single technology or company. This kind of sustainable investment helps continuously enhance the innovation capacity of foreign startups
- A head start: Early market entry gives companies a head start in accessing the market and resources to grow. It also helps form clusters, which create better conditions for Ontario startups entering China later.
- Participation in development of industry policy and regulations: Since many innovative sectors are uncharted industry territory in China, first-movers can participate in the formulation of industry policy and regulations. This can be of vital importance to the strategic development of companies

Opportunities for business to shape the market *Healthcare IT*

China is a nascent market for private healthcare IT vendors. Early entrants have the chance to help develop the platforms of the future and to standardize the products that will help gather, link and analyze data.³³

- Reduction in commercialization costs: Due to the large size of market opportunities and "economy of scale," startups can significantly reduce their commercialization costs for sophisticated technology products
- Access to funding: China offers access to risk capital to fund the R&D and prototype activities needed to grow a company. The risk capital received in China could be deployed in projects and activities conducted in Ontario
- Opportunities to reach other emerging markets: Successful market entry into China will open doors to other emerging markets

China is offering unprecedented, hefty bonuses to high-tech startups. This golden decade will pass as China's markets take root. Now is the time to take full advantage of the opportunity. As the world's largest market adjusts its position in the global value chain, companies with a vision need to seize the opportunity.

Ontario is a leader in some technologies that at present are desperately needed in China. This affords a robust opportunity for commercialization. Should other countries with similar technologies enter China ahead of Ontario, the opportunity will be forever lost. While most Ontario high-tech startups struggle for find customers and survive at home, potentially lucrative markets in China are waiting to be tapped.

As the Canadian Council for Chief Executives wrote in August 2012, "it is no longer possible for Canadian companies to succeed in China by treating it as an interesting side bet. They need to start treating China as a third home market, after Canada and the United States." ³⁴

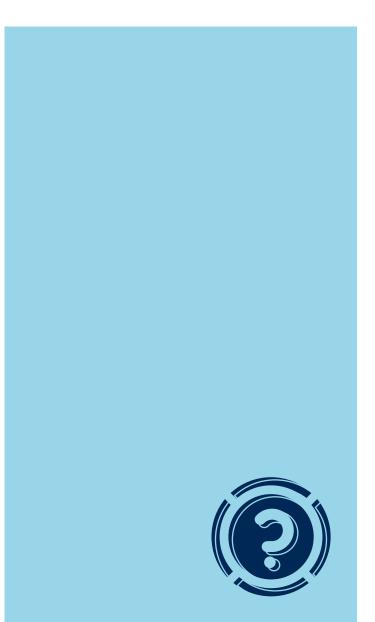
Finding the market opportunities

In the upcoming Parts 2 and 3 of our research of China's markets, we will introduce you to the biotechnology/life sciences and cleantech sector opportunities in different regions across China.

We will also discuss related research resources, government incentive policies, potential regional partners and collaboration models. Best practices for Ontario startups, including deal negotiation and IP protection, will also be examined.

STAY TUNED:

- Part 2: China Biotechnology/Life Sciences Market Opportunities for Ontario Startups (summer 2014)
- Part 3: China Cleantech Market Opportunities for Ontario Startups (fall 2014)



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