



National Angel Organization™

# **Solving the Precommercialization Gap in Canada**

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Panel on Commercialization  
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## Solving the Precommercialization Gap in Canada

### Executive Summary

The National Angel Organization is a grassroots coast-to-coast organization with the mission to promote angel investing best practices, provide networking and to open up a two-way channel of communication with government <sup>(1)</sup>. Informal investors including angel investors are the heart of commercialization. In Canada, it is most often the funding of founders, friends, family and angel investors that start the process of commercialization. Business angels are the oldest, largest, and most often used source of outside funds for entrepreneurial firms. Less than 1% of Canadian companies have been started with venture capital.

The NAO believes that a major hindrance to Canada's commercialization efforts is the precommercialization funding gap. Rapid increases in the supply of research funding and measures to improve venture capital supply in Canada have aggravated the precommercialization gap. The precommercialization-funding gap, sometimes known as the valley of death, is the funding shortage that occurs between government or corporate funding of R&D and just before a new company is large enough to attract financing from banks, institutions, public investors or VCs. In order to solve the precommercialization gap we must address three critical areas:

1. talent
2. infrastructure, and
3. risk capital

It is our recommendation to improve the infrastructure so that more informal investors are attracted to commercialization. The infrastructure improvements will address the talent shortage by encouraging successful business people and professionals to share their own talent, mentor and develop the talent of others and provide the capital needed to attract talent to this sector. The informal investor's capital and talent will help get new companies through the critical initial commercialization phase so that they are ready for bank, institutional, public or VC financing.

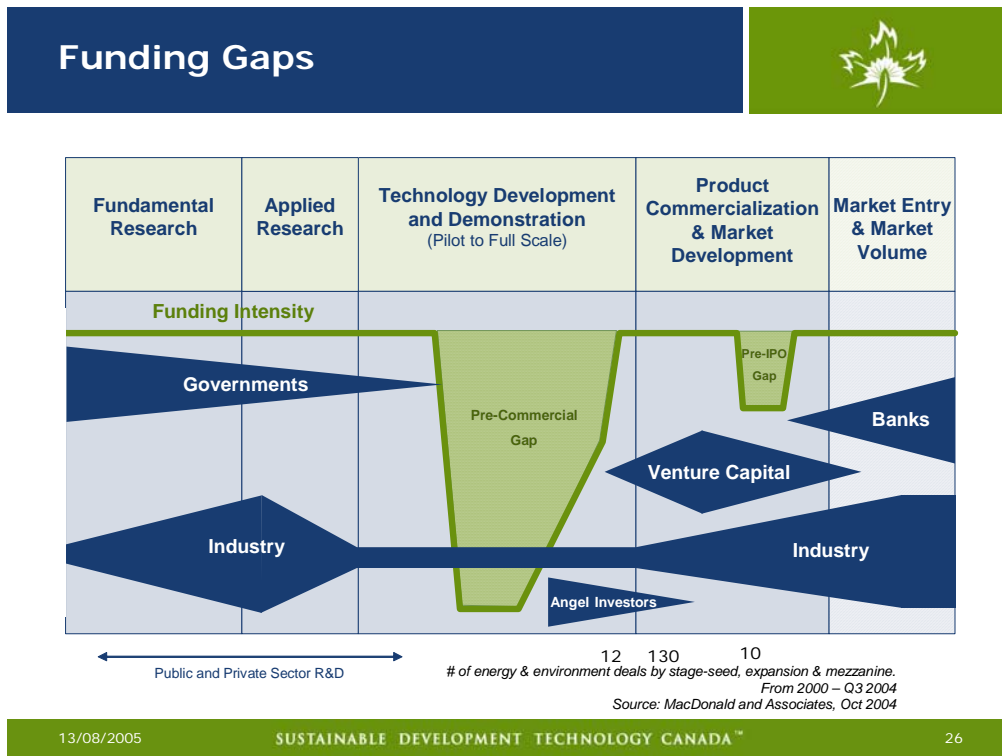
#### **The NAO's specific recommendations are:**

- 1. All infrastructure investments related to commercialization should require that a minimum of 20% of the investment go toward encouraging informal investment.**
- 2. Establish and fund angel sidecar funds.**
- 3. Implement the Innovation and Productivity Tax Credit**
- 4. Promote informal and angel investment whenever and wherever possible.**

## The Commercialization Bottleneck

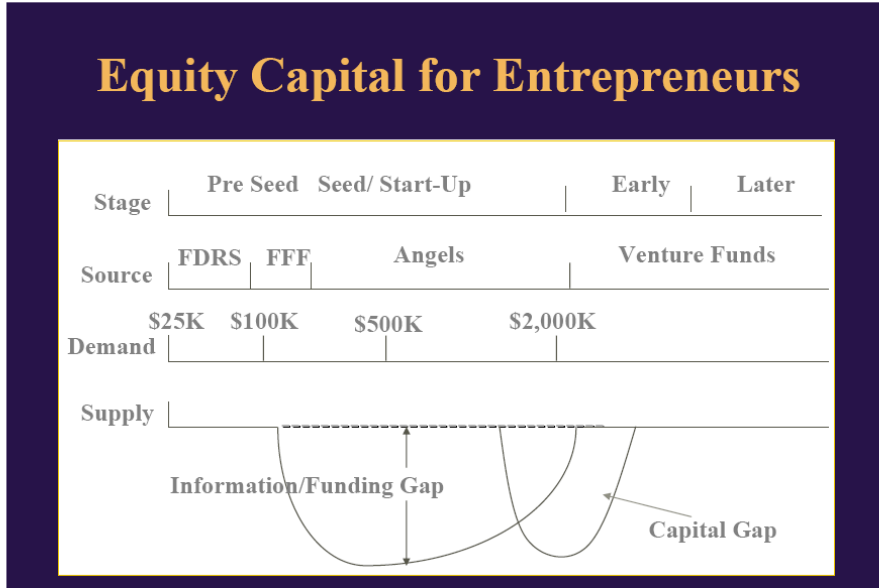
The Government of Canada has made major investments in R&D in order to increase the country's innovation and productivity and to reap the economic benefits. Since 1997, Canada has doubled its support for university and hospital-based research – an increase of more than \$13-billion. At the same time, the venture capital industry has been encouraged through tax credits to increase the amount of venture capital available. So why have we not been able to reap the full benefit of these two large investments? The NAO believes that there has not been an equivalent increase in informal investment. This has been reflected in the low rates of returns that VC's have encountered in seed and early stage investments,<sup>(2)</sup> which has caused VC's to reduce their investment in seed and early stage deals and has caused VC's difficulty in raising capital for these sectors. Informal investment comes from founders, friends and family, and angel investors. Informal investment is what turns R&D into the successful businesses that banks, institutions, public investors and VC's can finance. The bottleneck holding back the benefits of the government's large investments in R&D has been a shortage of informal investment.

The chart below<sup>(3)</sup> illustrates the relationship between government and industry funding for research and venture capital funding. The doubling of research spending and measures to increase venture capital funding has had the affect of aggravating the precommercialization gap.





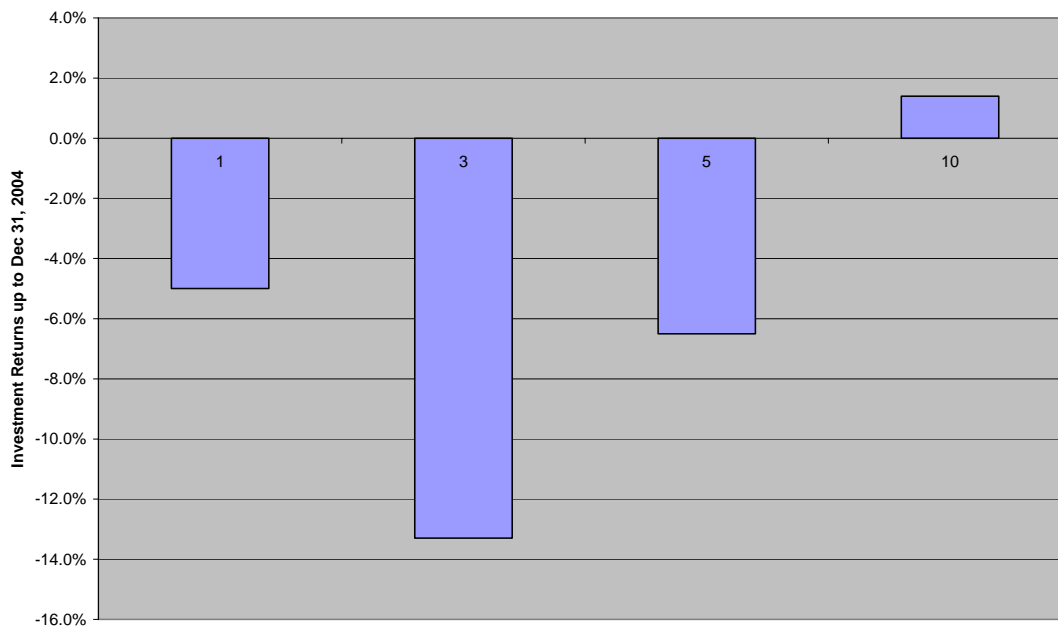
The precommercialization gap arises due to the information-funding gap that occurs in the preseed to seed/startup phase of company formation as is illustrated in the figure below:



The net result of the increase in R&D and tax measures encouraging VC investment has been an oversupply of venture capital given the supply of “venture capital investment ready companies” in Canada. This supply imbalance must be addressed by increasing the number of VC investment ready companies. The oversupply of VC capital is shown by the low rates of returns that VC’s exhibit in Canada for early stage financing and measures relative to other jurisdictions.



CVCA Early Stage Venture Capital Returns



Period in Years 1, 3, 5 & 10 years Source: Thomson Macdonald & CVCA

The chart above shows that the venture capital community in Canada has experienced negative returns on its early stage investments for the past five years despite early stage investments being their highest risk investments and hence the investments that should have given them the highest returns. In the USA, early stage VC investments, over 10 years and 20 years have outperformed all other stage categories of investment. The economic principle of supply and demand would suggest that in Canada there is either an oversupply of venture capital or a shortage of suitable investments. From an economic policy perspective, the best way to reap the benefits of R&D investments would be to increase the supply of VC investment ready companies by encouraging informal investors.

A comparison of US vs. Canadian per capita VC investments by stage of company is shown in the figure below. The figures show that Canadian VC's over invest in early and seed stage deals relative to the US. This overinvestment is most likely due to not enough informal investment to grow seed and early seed companies thus creating a shortage of VC ready investment companies for the VC's to invest in. The natural economic result of the company shortage is for the VC's to invest further up the food chain to early stage companies where they do not belong and where it is uneconomic for them to operate. In fact, recent trends have shown a retreat by VC's from seed and early stage investment as returns have dropped. This retreat has aggravated the gap still further as can be seen in the second figure below



Four Year Average (2001-2004) Venture Capital Investment per \$1,000 GDP

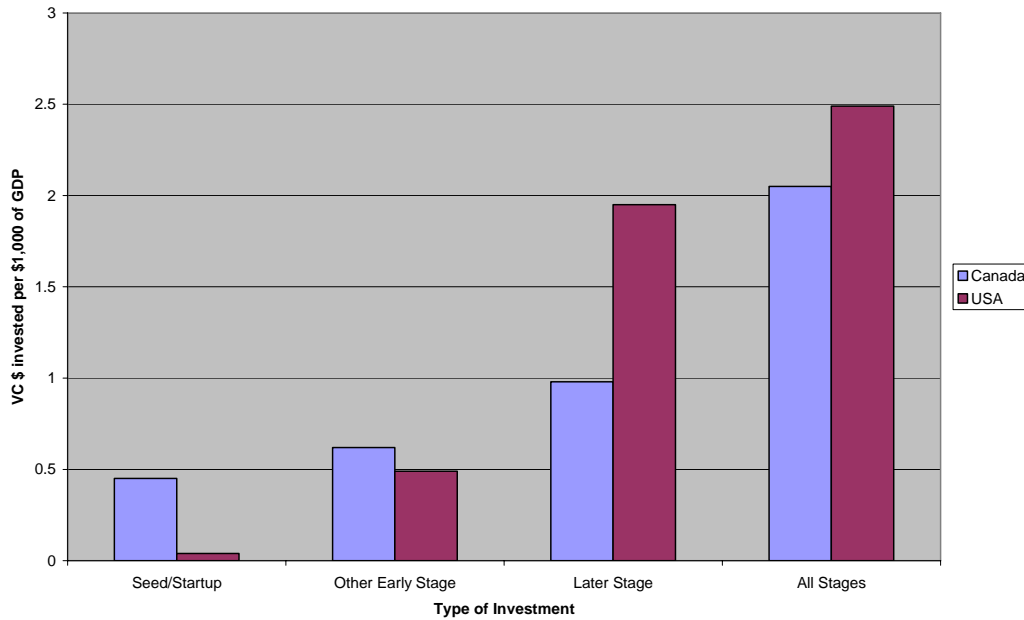
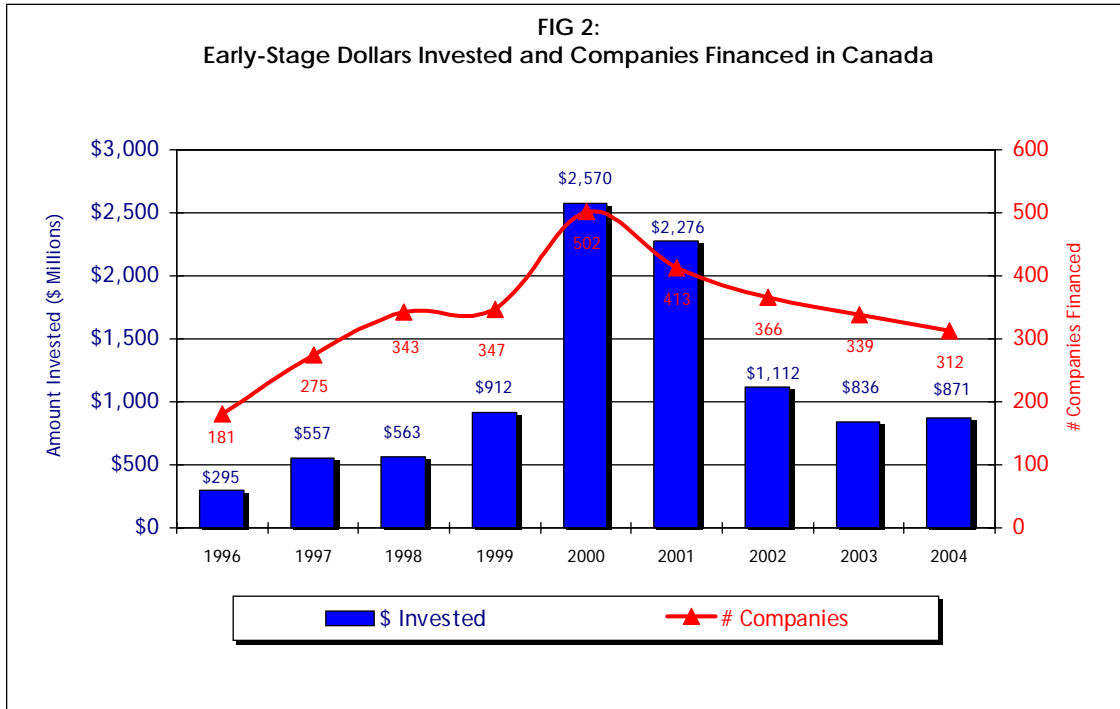


FIG 2: Early-Stage Dollars Invested and Companies Financed in Canada



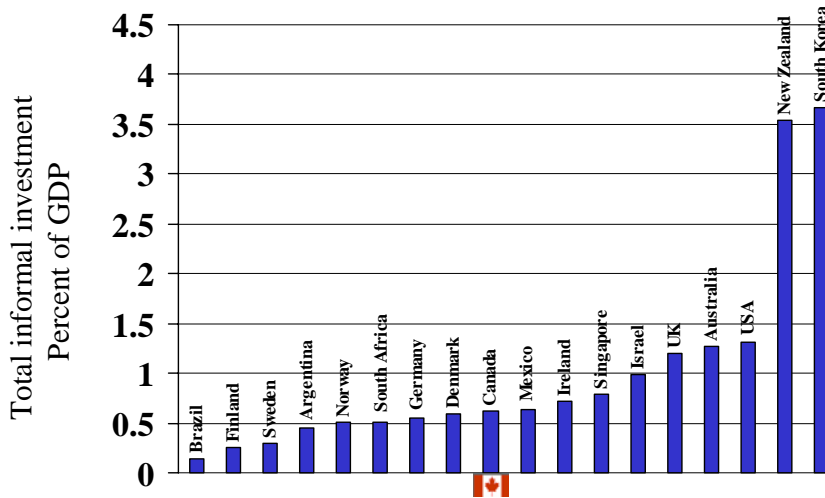


The shortage of venture capital ready companies and government tax incentives has caused venture capital companies to invest in companies that are too young and too small to earn a decent return, making it difficult to attract new capital to this sector. The graph above shows how early stage funding from VC’s has dropped in Canada. Increased informal investment will allow the young small companies to grow to a larger size that is practical for VC’s to invest in.

The reason there is a shortage of VC investment ready companies is because of the shortage of informal investors in Canada. The chart below shows that Canada ranks 9<sup>th</sup> out of 18 in the Global Entrepreneurship Monitor study<sup>(4)</sup> for level of informal investment. In the United States, there are 53% more informal investors per capita 4.9% vs. 3.2% in Canada. On average, the US informal investors are much wealthier and have a greater capacity for investment over 400,000 American households have assets greater than \$10 million.



Annual total amount of informal investment  
Percent of GDP



Average total amount of informal investment per year 1998 – 2001 per GDP in 2000.

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There are sound economic policy reasons to justify the government encouraging informal investment. One of the most important reasons is to reduce the bottleneck in the government’s innovation and productivity program caused by the precommercialization gap.



However, there are also good market reasons for government to intervene in this inefficient market. The average size of deals in Canada is smaller than in the USA and yet the costs associated with investment are almost the same in both markets. In Canada, entrepreneurs have a substantially lower number of banks they can approach than in the USA. Canada also suffers from large geographic distances between investors and companies. Clusters tend to be spread out and the matching up of individual investors with companies is more difficult. The USA has 53% more angel investors per capita than Canada, making it is much harder for Canadian companies to find and pitch individual investors. The high scarcity value of individual investors in Canada has distorted the market and made it harder and more expensive if not impossible in some situations to raise seed and early stage funding. The nature of early stage companies is such that information about the company is imperfect creating inefficiencies in the market.

Therefore, we are making the following recommendations to improve the market for informal investment in seed and early stage businesses:

1. **All infrastructure investments related to commercialization should require that a minimum of 20% of the investment go toward encouraging informal investment.** For example, assisting in the formation of local and sector angel investor groups, funding the screening of deals, providing meeting space, holding seminars to teach local angels about technologies, providing administrative assistance, organizing and running meetings. Making room for having angels in residence to assist researchers in commercialization. Mentorship programs linking business people with researchers. Having an angel outreach officer or point person who coordinates new projects with the angel community. Creating publications teaching about informal investment and promoting best practices.

Angel groups are a recent development, groups like the Ottawa Angel Association, the Toronto Angel Group and the Vancouver Angel Network give members a means of risk mitigation – via pooled expertise, networks and resources, access to quality deal flow, investment-cost efficiencies, and other types of strategic support. For this reason, collectivization gives members not just new opportunities, but safety in numbers.

2. **Fund Angel sidecar funds.** A sidecar fund—as the name suggests—is a committed source of capital that “rides” or invests alongside an angel group<sup>(5)</sup>. Sidecar funds invest in deals that have been vetted by and are being invested in by an angel group’s membership. Angel sidecar funds are a way for, institutions, governments, BDC, VC’s and others to leverage the expertise of the angel community thus reducing the need for their organizations to recruit scarce in-house talent and at the same time attract entrepreneurial talent for the investee companies



A key benefit of the angel sidecar fund is that it is the fastest and most prudent way of quickly ramping investment in seed and early stage companies to meet government policy needs. It also benefits from the fact that it is lower cost than building the capability in-house so that more of the funding goes towards investment.

The angel community likes angel sidecar funds because they increase the amount of available capital for their investee companies, thus increasing the chance of success and reducing the angel's risk. It is important to understand that angels on their own cannot always provide adequate funding for investee companies; and that there is no formal mechanism for accessing additional sources of angel capital when needed.

The National Angel Organization would be glad to make a presentation to your group on angel sidecar funds.

3. **Innovation and productivity tax credit** <sup>(6)</sup>. The Innovation and Productivity Tax Credit or IPTC is a tax credit that would encourage informal investors to invest in seed and early stage companies in the economic sectors the government wishes to grow. The IPTC regulations would define eligible companies as meeting certain simple size and type criteria. Once a company is approved as being eligible and allocated a specific tax credit allotment, individual investors could invest up to that amount in the eligible company. Upon making their investments, investors can apply for a 30% refundable tax credit. The tax credit would be funded 50/50 by the federal government and participating provinces.

Similar programs have been in effect in the United Kingdom and Nova Scotia for more than ten years and more recently in British Columbia and some US states<sup>(7)</sup>. The data show that such programs attract significant incremental investment and have quick paybacks for the government<sup>(8,9)</sup>. The IPTC is a tried true and proven method of addressing the precommercialization gap. The IPTC proposal has the support of the following groups:

- Canadian Advanced Technology Alliance
- Canadian Task Force on Early Stage Funding
- Canadian Federation of Independent Business
- Conference Board of Canada
- Ottawa Centre for Research & Innovation
- Foragen Technology Ventures Inc.
- MaRs Discovery District for Medical and Related Sciences
- National Angel Organization
- Primaxis Technology Ventures Inc.
- Petroleum Technology Alliance Canada
- Sustainable Development Technology Canada



The compelling reasons for the Innovation and Productivity Tax Credit are as follows:

- It increases the chances of success for start up and early stage companies by attracting more capital and individual investors;
- IPTC can be used to cut taxes while generating more tax revenue than it uses;
- It can generate great social returns through high quality job creation, regional development, product innovation and reduced tax burden;
- It can create net new investment for economic growth.
- It mobilizes individual investors with expertise, skill and contacts to help SME's;
- It benefits high-growth and knowledge-based SME's the most.
- It can be embraced by all members of the risk capital sector and many other sectors of the economy
- It is not subject to abuse like the SRTC program in the 80's;
- It is relatively simple and cost-effective to administer;
- It can be limited to a pre-determined budget amount by allocation.
- It greatly increases availability of risk capital in areas, outside major financial centers.

The NAO would be glad to make a presentation to your group on the IPTC.

4. **Promote informal and angel investment whenever and wherever possible.** In addition to the infrastructure, investments recommended above Canada must encourage a culture of informal investment in order to reduce the commercialization bottleneck. This culture change can best be accomplished by promoting the concept of angel investing including mentions of angel investment in departmental literature, speeches, awards, and strategic policy. Promotion applies to university commercialization programs, governmental organizations, Industry Canada, Finance Canada, NRC, provincial economic development, provincial finance and others. Media and education programs can also be used to make Canadians aware of informal and angel investment.

In conclusion, the National Angel Organization believes that the best way to increase the quality and number of successful commercialization efforts is to encourage informal investment to attract talent, risk capital and to finance early infrastructure.

For additional information on any of the recommendations or to arrange a presentation, please contact:

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