Participant's Guide

Including important background information on each session

PUBLIC POLICY FORUM

on Venture Capital and Innovation

Monday, October 25th, 2010
8:30 am - 5:00 pm

Frontenac Room

Fairmont Le Château Frontenac

Breakfast 7:30 to 8:30 am
Bellevue Room

Message from the Quebec City Conference President & Chair

Dear Participants in the Public Policy Forum on Venture Capital and Innovation,

Venture capital plays a crucial role in building an economy based on knowledge. Research studies clearly show how venture capital can transform innovations of R&D into broadly-based economic gain and societal benefit through a unique combination of financing and professional management. The results of these studies explain why most governments in the industrialized world actively support this industry.

The venture capital model was invented in the US after three decades of trial and error. It has registered its main successes in California and the US East Coast and proven very flexible to adapt to the ups and downs of this very cyclical industry. New challenges, however, have added to the difficulties of the present downturn as it comes after a decade of disappointing returns, even in the US, while globalization of technology and innovation is profoundly changing the landscape. The new cycle may look very different from the previous ones.

On the other hand, it is important to remember, especially in these unsettling times, that it is innovation that truly drives economies. The underlying factors of innovation, which are R&D spending and the training of entrepreneurs, engineers and scientists, keep growing and becoming more and more global. Even if its model is being questioned, venture capital remains the most efficient financing means to transform innovation into successful companies and products.

This international challenge accentuates the need for an annual meeting of architects of public policy aimed at developing and supporting a buoyant global venture capital and private equity ecosystem in a well-designed format intended for high-level exchanges and reflection.

The Public Policy Forum on Venture Capital was conceived to accomplish this objective.

We would like to thank the institutions and governments who supported this Public Policy Forum, financially and logistically. In particular, we wish to salute the governments of Ontario, British Columbia and Alberta which joined the governments of Canada (Industry Canada and Foreign Affairs and International Trade) and Quebec as partners in this project, based on the conviction that joining forces, resources and expertise is the right strategy to maximize value for each participant. We hope that this generous and visionary precedent will also benefit other jurisdictions faced with a common challenge of creating wealth through innovation.

Our sincere thanks to all panellists, to the members of the organizing committee and to the volunteers who have invested time and efforts to ensure another successful Forum.

Finally, a warm thank you to the President of the Forum, Mr. Gilles Duruflé, to its Chair, Mr. Yigal Erlich, and to the Forum's Special Advisor, Dr. Josh Lerner.

Sincerely,

Mr. Christian Racicot
Co-Founder and President
The Quebec City Conference

Mr. Stephen A. Hurwitz
Co-Founder and Chair
The Quebec City Conference

About the Public Policy Forum

Held annually within the Quebec City Conference, the Public Policy Forum on Venture Capital and Innovation has evolved into the premiere gathering of public policy makers and industry leaders (GPs, LPs, academics and other experts) responsible for encouraging high-potential entrepreneurship and venture capital from all major economies.

The objectives: Building this Forum as an independent platform to give participants an opportunity to exchange views, experiences and concerns regarding public policies in support of a buoyant venture capital ecosystem to finance emerging technology companies and to develop long term relationships.

About The Quebec City Conference

Now in its seventh year The Quebec City Conference is private, by invitation-only and not-for-profit, and regarded as the "Davos" of this international investment community. In 2009, the Conference attracted nearly 400 participants from 21 countries from North America, Europe, Asia, Middle-East and South America. Service providers are not invited.

The QCC attracts an exceptional group of world-leading investors in a small and intimate setting, offering a unique opportunity for networking at the highest levels of the international investment community. This year, to preserve the unique attributes of the Conference, we are targeting a limited attendance of 400 guests.

Additional information at: www.quebeccityconference.com

Table of content

Introduction

This year's themes and agenda

Importance of reading the Participant's Guide in advance

Last year's Public Policy Forum was focused on the case for government intervention to support the development of a buoyant VC industry, its pitfalls and conditions for success. Based notably on the conclusions of Josh Lerner's book ("Boulevard of Broken Dreams – Why Public Efforts to Boost Entrepreneurship and Venture Capital Have Failed and What to Do about it"), which was launched at the Forum, a broad high level consensus was reached on these topics. However, many concerns were raised around the viability of the VC model itself, in the absence of positive returns, especially outside the US, and about the possibility of implementing successful public policies to support the industry in such a context.

One year later, these questions are even more pressing. We all have in mind the 10 year horizon return for venture capital funds in the US and Europe, which makes it clear that the industry has now had disappointing returns for more than a decade, even in the US. LPs' dissatisfaction has grown and fund raising is in a free fall in most markets: compared to 2007, the first half of 2010 is down 66% in the US and 75% in Europe.

There is obviously a cyclical dimension in these results, but cyclicality may not tell the whole story. One may have to consider different scenarios where the LP base may be enduringly affected by the situation and GPs will have to change some of their practices to respond to the new situation. Public policies to support the industry would also have to adapt to this new configuration.

This is why the overall theme of this year's Forum will be "Questioning the VC model – implications for public policies".

Dr Josh Lerner and Dr Thomas Hellmann will set the stage with their initial presentation reminding us of the economic benefits of venture capital investment activities and the case for government intervention, but also exploring the various future scenarios and their potential implications for public policies.

The four panels that follow will explore how the industry and public policies are responding to the present challenges, which initiatives seem to work best and what lessons could be learned:

- "Innovative and creative actions taken around the world to renew the venture capital model"
- "Which public policies to support the industry in a period of transition"
- "Tech transfer: new model or traditional VC financing"
- "Best developments in new markets: China, Mexico and the Middle East"

Following last year's recommendations, we shall focus these panels on practical solutions: what has worked, what has not, and why.

In the afternoon, to go more into specifics, we shall present and discuss a business case on the model of the Harvard Business School. We have chosen the “British Columbia Venture Capital Program” (Canada), a tax credit for business angels, which seems to have been successful in stimulating business angels’ investment and linking tech savvy angels with venture capital.

The case was prepared by the Sauder School of Business at the University of British Columbia under the leadership of Dr. Thomas Hellmann, in collaboration with Dr. Josh Lerner and Todd Tessier, Vice President, Venture Investments, BC Renaissance Capital Fund.

You will find in the Participant’s Guide a detailed presentation of the themes of the panels, the bios of the panellists, as well as some background information which the panellists would like you to have read before the Forum in order to better participate in the discussion.

You will also find in this Guide the document presenting the Business case. It is important that you read it in advance in order to be able to participate fully in the session.

Our speakers and panellists, as well as our audience, will be composed of public policy makers and industry leading GPs, LPs, academics and other industry experts from North and South America, Europe, China, Israel and the Middle East, Australia and New Zealand, all of which have deep interest and high level experience in advocating, designing and implementing public policies in support of a buoyant venture capital ecosystem to finance emerging technology companies. This should set the stage for what we hope will be intense discussions and high quality networking.

We would like to thank all of those who contributed to this Forum: our Organizing Committee, especially Dr Josh Lerner who, for months has acted as special advisor to the Forum’s team, the directors of the Québec City Conference who have wholeheartedly supported this endeavour and all the panellists who have sent their background information and enriched the program with their ideas and suggestions.

A special “thank you” goes to the Governments of Canada, Québec, Ontario, Alberta and British Columbia which partnered with the Québec City Conference to develop this Forum and have provided a great deal of financial and technical support.

We hope you will find the documents contained in this Participant’s Guide interesting and look forward to meeting you in Québec City.

Gilles Duruflé

Dr. Gilles Duruflé
Executive Vice President
The Quebec City Conference
President, Public Policy Forum on Venture Capital

Mr. Yigal Erlich
Founder, Chairman and Managing Partner
The Yozma Group
Chairman, Public Policy Forum on Venture Capital

Organizing Committee

President

Dr. Gilles Duruflé

Executive Vice President
The Quebec City Conference

Members

Mr. Ross Bricker

President and CEO
AVAC Ltd.

Mr. Francis Carpenter

Senior Advisor - CDC international
Caisse des dépôts et consignations
CDC

Mr. Thomas Hellmann

Professor
Sauder School of Business

Dr. Robin Louis

Senior Advisor
Vanedge Capital

Mr. Randy Mitchell

International Trade Strategist for
Venture Capital
US Department of Commerce,
International Trade Administration

Dr. Helmut Schühsler

Managing Partner
TVM Capital

Résumés

Dr. Gilles Duruflé

Executive Vice President
The Quebec City Conference
President, Public Policy Forum on Venture Capital

Gilles Duruflé is presently Executive Vice President of the Quebec City Conference and President of the Public Policy Forum. He is also an independent consultant advising venture capital and private equity funds, institutional investors and governments.

He was previously Senior Partner at CDP Capital Technology Ventures, in charge of the Funds of Funds portfolio and has been Head of strategic studies at the Caisse de dépôt et placement du Québec. From 1979 to 1991, he worked as senior consultant in strategic planning firms in the CDC Group in Europe and North America.

He is a Vice President of the Canadian Venture Capital Association (CVCA) and sits on the International Private Equity Valuation (IPEV) Board.

M. Duruflé obtained his Masters in Philosophy from the CERP (Paris), his Ph.D. in Mathematics from the Paris VI University and the Diploma of the Centre d'Études des Programme Économiques (Ministry of Finance, Paris). He is a CFA and has published numerous books and articles on various subjects related to economics and finance.

Mr. Yigal Erlich

Founder, Chairman and Managing Partner
The Yozma Group
Chairman, Public Policy Forum on Venture Capital

Mr. Yigal Erlich is the founding father of the Israeli venture capital industry and one of the most prominent figures in the Israeli high-tech arena in the past 15 years.

At the beginning of the 1990s, Mr. Erlich identified a market failure and a huge need in Israel to establish for the first time a professionally-managed venture capital industry that will fund the exponential growth of high tech ventures coming out of Israel.

In late 1992, Mr. Erlich convinced the Israeli government to allocate $100 million for his venture capital vision. Within a period of three years, Erlich, along with the other members of the core team at Yozma, established ten venture funds. These ten funds, which include Gemini, JPV, Nitzanim (Concord), Polaris, STAR and Walden Israel, are the backbone of the vibrant and sophisticated venture capital market that Israel has today.

Mr. Yigal Erlich is the founder of the Israel Venture Association and currently serves as its Chairman. Between 1984 and 1992, Mr. Erlich served as the Chief Scientist of Israel's Ministry of Industry and Trade. During his eight-year tenure as Chief Scientist, Mr. Erlich commanded an annual budget of $200 million, primarily directed at research and development projects of high-technology companies. In addition, Mr. Erlich initiated the Generic Technology program which fostered cooperation on long-term R&D activities through the creation of consortia of companies with research institutes and universities worldwide.

Mr. Erlich also started the Technology Incubator Program that led to the creation of 24 Incubation Centers throughout Israel. Mr. Erlich was instrumental in the establishment of several bi-national industrial and technology R&D cooperation agreements with Canada, France, the Netherlands, Singapore and Spain. Mr. Erlich was the Chairman of the Executive Committee of the US-Israel Bi-national Industrial Research and Development Foundation (BIRD), and a Director of the Dead Sea Works, Israel Chemicals, Israel Oil Refineries, Hadassah's commercialization company - Hadassit, and the Technion Research and Development Co. Ltd.

Mr. Erlich holds B.Sc. and M.Sc. in Chemistry and an MBA from the Hebrew University of Jerusalem.

Program

Monday, October 25, 2010

7:30—8:30	**BREAKFAST: Bellevue Room**		
8:30 - 8:50	**WELCOME:**	**Mr. Christian Racicot** *Co-Founder and President* The Quebec City Conference	**Mr. Yigal Erlich** *Founder, Chairman and Managing Partner* The Yozma Group *Chairman,* Public Policy Forum
	INTRODUCTION:	**Dr. Gilles Duruflé** *President* Public Policy Forum	
8:50 - 9:40	**KEYNOTE PRESENTATION*: “Questioning the VC model - implications for public policies”**		
	Dr. Thomas Hellmann *B.I.* Ghert Family Foundation *Professor in Finance and Policy,* Sauder School of Business University of British Columbia		**Dr. Gilles Duruflé** *President* Public Policy Forum
	* **Dr Josh Lerner** participated in the preparation of this presentation but will not be physically present due to prior teaching commitments.		
9:40 - 10:30	**FIRST PANEL: Innovative and creative actions taken around the world to renew the venture capital model**		
10:30 - 10:50	**NETWORKING BREAK**		
10:50 - 11:40	**SECOND PANEL: Which public policies to support the industry in a period of transition?**		
11:40 - 12:30	**THIRD PANEL: Best developments in new markets**		
12:30 - 13:30	**NETWORKING LUNCH**		
13:30 - 15:15	**BUSINESS CASE: The British Columbia Venture Capital Program**		
15:15 - 15:35	**NETWORKING BREAK**		
15:35 - 16:25	**FOURTH PANEL: Tech transfer: new model or traditional VC financing**		
16:30 - 17:00	**General Discussion: conclusions and next steps**		

Keynote Presentation

"Questioning the VC model – Implications for public policies"

Keynote speakers

Dr. Thomas Hellmann
B.I. Ghert Family Foundation Professor in Finance and Policy
Sauder School of Business
University of British Columbia

Dr. Thomas Hellmann is the B.I. Ghert Family Foundation Professor in Finance and Policy at the Sauder School of Business at the University of British Columbia. He holds a BA from the London School of Economics and a PhD from Stanford University. He is the director of the W. Maurice Young Entrepreneurship and Venture Capital Research Centre at UBC. Prior to joining UBC, he spent ten years as an Assistant Professor at the Graduate School of Business, Stanford University.

He teaches executive, MBA and undergraduate courses in the areas of venture capital, entrepreneurship and strategic management. His research interests are venture capital, entrepreneurship, innovation, strategic management and public policy. He is also the founder of the NBER Entrepreneurship Research Boot Camp, which teaches the frontiers of entrepreneurship economics and entrepreneurial finance to PhD students.

Recently he wrote a report about the role of government in venture capital for the World Economic Forum in Davos. He also led the evaluation report of the venture capital program in British Columbia. His academic writings have been published in many leading economics, finance and management journals. He has also written numerous case studies on entrepreneurship and venture capital, and led the development of a library of case studies focused on high technology companies in British Columbia. Currently he is writing a textbook on venture capital and private equity.

Dr. Gilles Duruflé
President
Public Policy Forum on Venture Capital

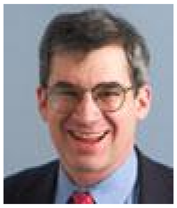
Gilles Duruflé is presently Executive Vice President of the Quebec City Conference and President of the Public Policy Forum. He is also an independent consultant advising venture capital and private equity funds, institutional investors and governments.

He was previously Senior Partner at CDP Capital Technology Ventures, in charge of the Funds of Funds portfolio and has been Head of strategic studies at the Caisse de dépôt et placement du Québec. From 1979 to 1991, he worked as senior consultant in strategic planning firms in the CDC Group in Europe and North America.

He is a Vice-President of the Canadian Venture Capital Association (CVCA) and sits on the International Private Equity Valuation (IPEV) Board.

M. Duruflé obtained his Masters in Philosophy from the CERP (Paris), his Ph.D. in Mathematics from the Paris VI University and the Diploma of the Centre d'Études des Programme Économiques (Ministry of Finance, Paris). He is a CFA and has published numerous books and articles on various subjects related to economics and finance.

Collaborator



Dr. Josh Lerner
Jacob H. Schiff Professor of Investment Banking
Harvard Business School

Josh Lerner is the Jacob H. Schiff Professor of Investment Banking at Harvard Business School, with a joint appointment in the Finance and Entrepreneurial Management Units. He graduated from Yale College with a Special Divisional Major that combined physics with the history of technology. He worked for several years on issues concerning technological innovation and public policy, at the Brookings Institution, for a public-private task force in Chicago, and on Capitol Hill. He then obtained a Ph.D. from Harvard's Economics Department.

Much of his research focuses on the structure and role of venture capital and private equity organizations. (This research is collected in two books, The Venture Capital Cycle and The Money of Invention.) He also examines technological innovation and how firms are responding to changing public policies. (The research is discussed in the book, Innovation and Its Discontents.) He founded, raised funding for, and organizes two groups at the National Bureau of Economic Research: Entrepreneurship and Innovation Policy and the Economy. He is a member of a number of other NBER groups and serves as co-editor of their publication, Innovation Policy and the Economy. His work has been published in a variety of top academic journals.

In the 1993-94 academic year, he introduced an elective course for second-year MBAs on private equity finance. In recent years, “Venture Capital and Private Equity” has consistently been one of the largest elective courses at Harvard Business School. (The course materials are collected in Venture Capital and Private Equity: A Casebook, whose fourth edition is forthcoming.) He also teaches a doctoral course on entrepreneurship and in the Owners-Presidents-Managers Program, and organizes an annual executive course on private equity in Boston and Beijing. He recently led an international team of scholars in a study of the economic impact of private equity for the World Economic Forum.

Panel 1

Innovative and creative actions taken around the world to renew the venture capital model

Moderator: **Dr. Gordon Hargraves**
Partner
Rho Fund Investors

Panellists:

Mr. Ed Colloton
Bessemer Venture Partners

Mr. Frank Landsberger
Senior Managing Director
INKEF Netherlands Manager B.V.

Mr. Jim Pittman
Vice President PSP Investments
ILPA Board member

Table of content

Panel 1

6.1 Introduction

Criticism of the LP/GP model have grown louder and louder over the last few years:

- From LPs to GPs: lack of transparency, fee business, excessive costs, misalignment of interests, short-termism, inability to leverage the main competitive advantages of large institutional investors which are very long term horizon and deep pockets.

- From GPs to LPs: excessive conservatism, unwillingness to explore new models which would better align interests and allow for longer term horizons if needed to grow investee companies to their fullest potential.

Meanwhile the industry, GPs as well as LPs, did not stay still ahead of these issues. Initiatives have been taken on both sides to remedy them. This panel will discuss sets of actions which take different angles to address the issues:

- Bessemer (Ed. Colloton) has worked on modifications to the fund raising cycle and the GP compensation scheme which should contribute to better align interests of LPs, GPS and entrepreneurs.

- INKEF Capital (Frank Landsberger) is the result of a joint initiative of two large institutional investors, OMERS in Canada and ABP in The Netherlands to move away from the LP/GP model and develop their own captive team with a much longer investment horizon.

- On the LP side, the ILPA (Institutional Limited Partners Association) has developed “Private Equity Principles” which “are intended to serve as a basis for continued discussion among and between the general partner and limited partner communities with the goal of improving the private equity industry for the long-term benefit of all its participants”. Jim Pittman is a Board member of ILPA and Vice President at PSP Investments, a large Canadian institutional investor.

- For 30 years, Rho Fund Investors (Gordon Hargraves) has been looking for emerging managers who will build tomorrow’s performing funds and, possibly, renew the industry.

Details on their initiatives and their view on the future of the industry can be found in the background information they sent. We encourage you to read it as the panel will not come back to it but rather concentrate on lessons learned, questions and issues such as:

- What are the early impacts of these initiatives?
- Are they adequate responses to the challenges facing the industry?
- Will they help returns?
- Are we going to see deep changes in the way the VC industry is functioning?
- How should public policies adapt to this new environment?

Panel 1

Moderator

Dr. Gordon Hargraves
Partner
Rho Fund Investors

Gordon Hargraves is the Partner responsible for managing Rho Fund Investors ("RFI"), which commits to venture capital and other specialized private equity funds whose strategies afford unique advantages, such as domain expertise, operational expertise or focus on a particularly attractive sector. Since 1981, RFI has committed in excess of $1.9 billion to over 125 private equity funds. Rho has successfully committed to, and realized substantial returns from, private equity funds across numerous sectors and through a wide variety of economic cycles. RFI also draws extensively on its relationship with Rho Ventures, the division of Rho that manages a series of venture capital funds that have invested in more than 150 early stage companies in information technology, communications, and healthcare since 1981.

Prior to joining Rho, Gordon was responsible for the developing and managing the private equity program at the National Bank of Kuwait, which included leading direct investments, co-investments and private equity fund investments. Gordon began his private equity career in 1993 when he joined GCC Investments and made direct private equity investments in the US and Western Europe. Gordon received his MBA from the University of Chicago.

Panellist

Mr. Ed Colloton
Bessemer Venture Partners

Ed joined Bessemer Venture Partners in 2001. As chair of the firm's investment and management committees, Ed leads the operations of the firm. Prior to joining Bessemer, he was Chief Operating Officer and a financial services investor at JP Morgan Capital, the private equity arm of JP Morgan. While at JP Morgan, Ed led investments in seven electronic financial services deals, including Archipelago (merger with NYSE).

Previously, Ed was a private equity lawyer at Davis Polk & Wardwell. At Davis Polk, he regularly advised DLJ Merchant Banking Partners both in connection with private equity deals and on fund formation matters.While on active duty in the U.S. Navy, Ed served as a representative for international negotiations at the Joint Chiefs of Staff, where he was awarded a Navy Commendation medal by the Secretary of Defense, and as Navigator and Combat Information Center officer onboard USS Boulder (LST-1190) in the U.S. Atlantic Fleet. In 2009, the Forbes Midas List ranked Ed among leading venture capitalists. Ed serves on the board of Creative Capital, a leading foundation funding some of the country's most innovative artists.

Ed received his A.B in economics from Cornell University and a J.D. from the Harvard Law School.

Panellists

Mr. Frank Landsberger
Senior Managing Director
INKEF Netherlands Manager B.V.

Frank Landsberger is the Senior Managing Director of INKEF Netherlands Manager B.V. In his varied career in the US as well as in Europe, Dr. Frank Landsberger has acquired significant experience as a venture capitalist, start-up entrepreneur, academic and senior corporate manager.

Mr. Jim Pittman
Vice President PSP Investments
ILPA Board member

Jim Pittman joined PSP Private Equity in February 2005 and has co-lead the strategy and investment of a $5 billion international Private Equity portfolio, including $1.2 billion of direct deals and co-investments.

From 2002 to 2005, Mr. Pittman was Executive Vice-President and Chief Financial Officer of Provincial Aerospace, an internationally diversified aerospace and aviation operations company focused on aircraft modifications and operations. Prior to Provincial, he was Chief Financial Officer and Co-owner of two other operating businesses in the technology and pharmaceutical industries.

Mr. Pittman currently sits on the Board of Directors for Telesat Canada, Herbal Magic Inc., the Institutional Limited Partners Association and Haymarket Financial Holdings Limited

Venture Market Review

April 2010

Gordon Hargraves
152 West 57th Street
23RD Floor
New York, NY 10019
____
+1.212.848.0415
ghargraves@rho.com

Habib Kairouz
152 West 57th Street
23RD Floor
New York, NY 10019
____
+1.212.848.0400
hkairouz@rho.com

www.rho.com

Venture Capital Historically Outperforms S&P 500

- **10-year returns are expected to decline as the "bubble" year returns are excluded.**
- **Over the long-run, Early-stage funds have historically generated the highest returns, while recently, Later-stage funds have outperformed.**

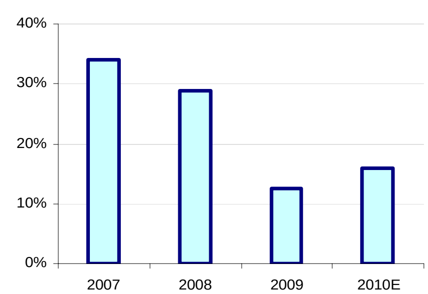
Investment Horizon Returns

Fund Type	20 Yr	10 Yr	5 Yr	3 Yr	1 Yr
NASDAQ	**7.8%**	**-2.5%**	**2.3%**	**-2.0%**	**1.5%**
All Venture	**17.4%**	**7.7%**	**5.4%**	**2.6%**	**-10.8%**
Early/Seed	22.5%	8.3%	2.0%	0.4%	-11.5%
Balanced	14.8%	9.2%	8.0%	3.2%	-12.5%
Later Stage	14.7%	5.0%	8.2%	6.6%	-5.9%

Source: Thomson's Venture Xpert, returns are as of 9/30/2009.

LP Interest in Venture is Declining

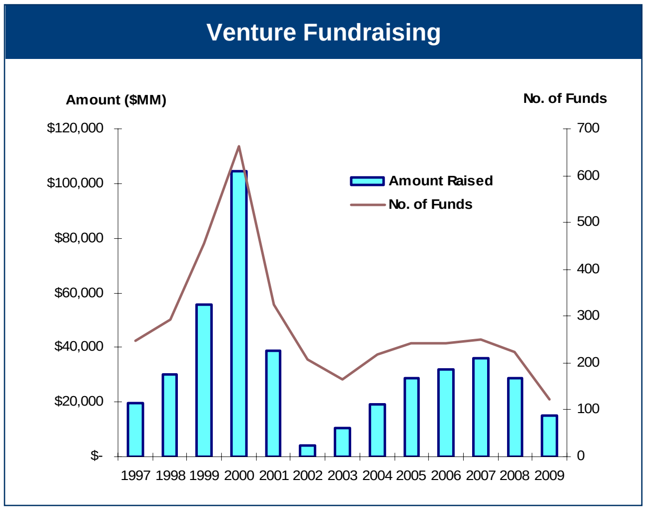
Percentage of LPs Targeting Venture Funds



Note: 2007 to 2009 are actual; 2010 is based on LPs expectations.

Source: Probitas Partners 2010 Private Equity Institutional Investor Survey.

Amount Raised and Number of Funds Decline

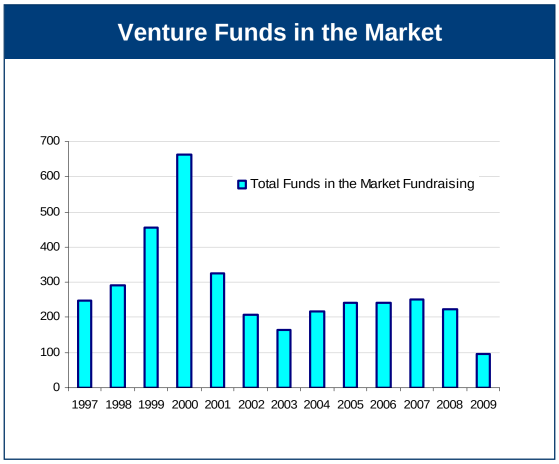


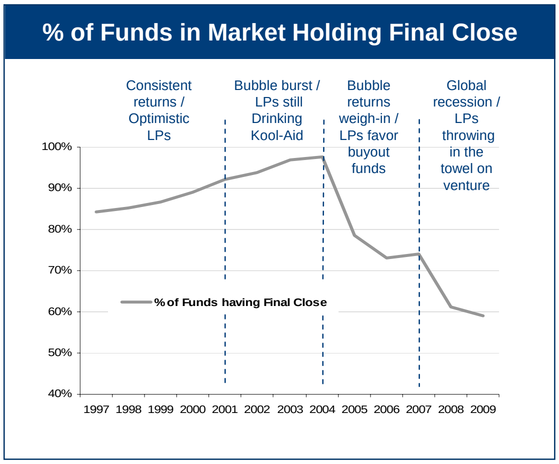
Source: Thomson's Venture Xpert.

rho

Shakeout of Funds

- **NVCA reports that VC firm membership has fallen 11% from 2007 to 2009.**
- **Not only are less funds in the market fundraising** (left chart)**, but also, of the funds that are in the market less than half held a final close in 2009** (right chart)**, significantly below the historical average of >80%.**

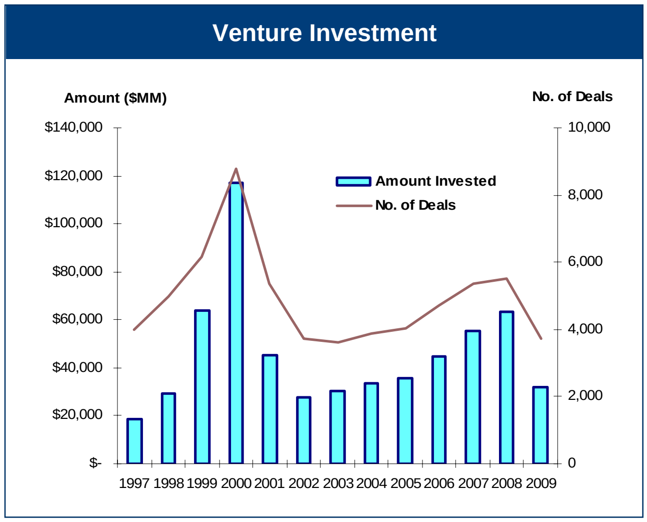




Source: Thomson's Venture Xpert.

rho

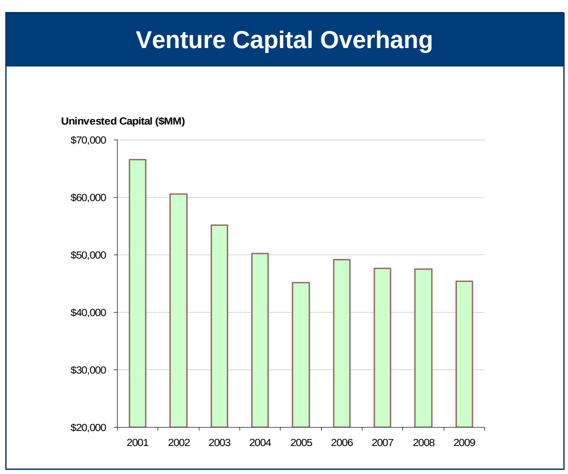
Invested Capital and Number of Deals Decline



Source: Thomson's Venture Xpert.

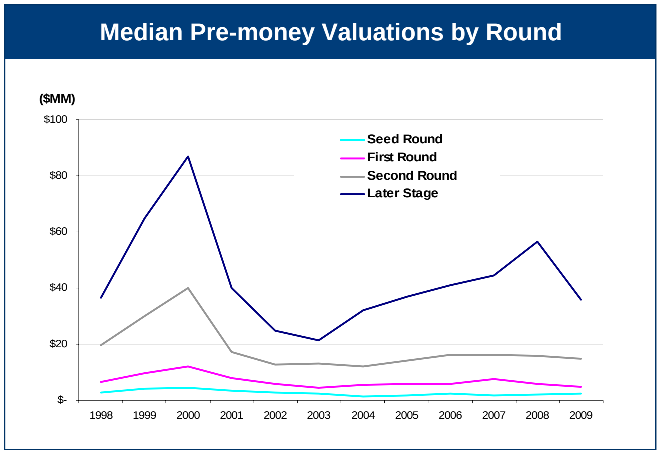
Shrinking Capital Overhang

- **Supply of uninvested capital is currently at $45 billion, or 1.8x the annual investment pace over the last five years.**



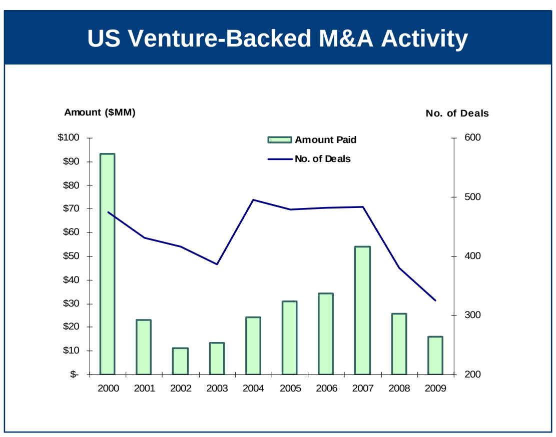
Source: Thomson's Venture Xpert.

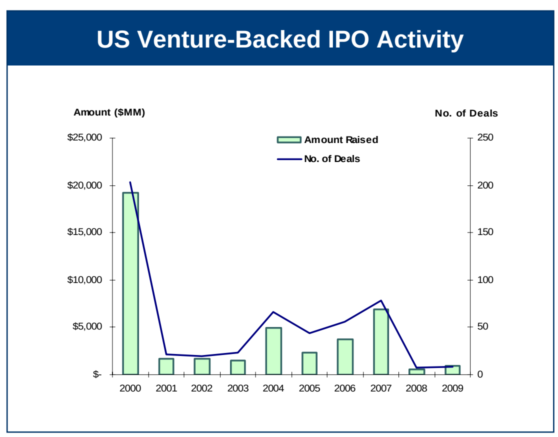
Overall, Pre-money Valuations Declined



Source: Dow Jones VentureSource.

Exit Activity May Have Hit Trough in Early-2009…



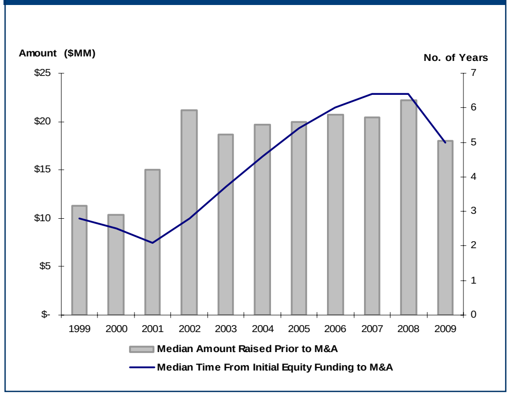


Source: DowJones VentureSource.

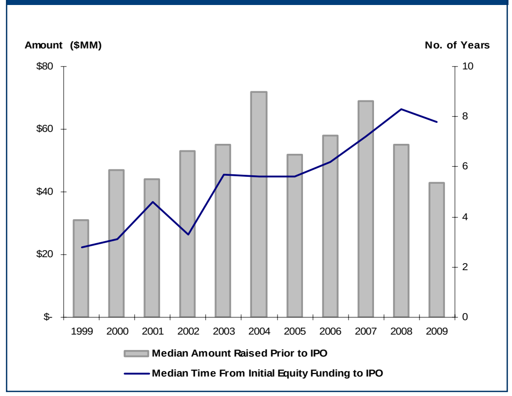
With Time to Exit Improving

- **The median time from initial equity funding and median amount raised before exit, both declined in 2009.**

Equity Raised & Avg. Time Before M&A



Equity Raised & Avg. Time Before IPO



Source: Dow Jones VentureSource.

rho

VC-backed M&A Activity Picking Up

datadomain

Founded:	2001
Total VC Funding:	$152M*
Date Announced:	June-09
Purchase Price:	$2,368M*
Acquirer:	EMC

admob

Founded:	2006
Total VC Funding:	$47M
Date Announced:	Nov-09
Purchase Price:	$750M
Acquirer:	Google

pure digital

Founded:	2000
Total VC Funding:	$95M
Date Acquired:	March-09
Purchase Price:	$590M
Acquirer:	Cisco

spring source

Founded:	2007
Total VC Funding:	$46M
Date Acquired:	Aug-09
Purchase Price:	$420M
Acquirer:	vmware

STARENT

Founded:	2000
Total VC Funding:	$217M*
Date Announced:	Oct-09
Purchase Price:	$2,778M*
Acquirer:	Cisco

playfish

Founded:	2007
Total VC Funding:	$17M
Date Announced:	Nov-09
Purchase Price:	$400M
Acquirer:	EA

Zappos.com

Founded:	1999
Total VC Funding:	$49M
Date Acquired:	July-09
Purchase Price:	$930M
Acquirer:	amazon.com

Athenix

Founded:	2000
Total VC Funding:	$45M
Date Announced:	Aug-08
Purchase Price:	$400M
Acquirer:	Bayer CropScience

mint.com

Founded:	2006
Total VC Funding:	$32M
Date Announced:	Nov-09
Purchase Price:	$170M
Acquirer:	Intuit

LifeSize

Founded:	2003
Total VC Funding:	$90M
Date Announced:	Nov-09
Purchase Price:	$405M
Acquirer:	Logitech

COREVALVE

Founded:	2001
Total VC Funding:	$62M
Date Acquired:	Feb-09
Purchase Price:	$700M
Acquirer:	Medtronic

Gloucester Pharmaceuticals

Founded:	2003
Total VC Funding:	$113M
Date Acquired:	Dec-09
Purchase Price:	$640M
Acquirer:	Celgene

Source: Thomson's Venture Xpert.
* Data Domain and Starent went public and shortly thereafter were acquired. The Total VC Funding includes both the amount raised from VC's and the IPO proceeds. The Purchase Price represents the total valuation of the company, not just the value of the shares acquired.

rho

Venture-backed IPOs are Performing Well

LogMeIn

Founded:	2003
Total VC Funding:	$25M
IPO Date:	July-09
Post Offer:	$342M
Current Mkt Value	**$464M**

medidata (Medidata Solutions Worldwide)

Founded:	1999
Total VC Funding:	$22M
IPO Date:	June-09
Post Offer:	$313M
Current Mkt Value	**$348M**

OpenTable

Founded:	1998
Total VC Funding:	$69M
IPO Date:	May-09
Post Offer:	$404M
Current Mkt Value	**$834M**

solarwinds

Founded:	1998
Total VC Funding:	$62M
IPO Date:	May-09
Post Offer:	$763M
Current Mkt Value	**$1,560M**

A123 SYSTEMS

Founded:	2001
Total VC Funding:	$243M
IPO Date:	Sept-09
Post Offer:	$1,325M
Current Mkt Value	**$1,410M**

FORTINET

Founded:	2000
Total VC Funding:	$84M
IPO Date:	Nov-09
Post Offer:	$805M
Current Mkt Value	**$1,140M**

Source: Thomson's Venture Xpert; Current Market Value represents the market cap reported by Google Finance as of 4/8/2010.

rho

IPO Market Returning

- **Recent IPO activity is reaching a level that has not been seen in two years**
  - First quarter of 2010 was the best quarter for VC-backed IPOs since the fourth quarter of 2007.
  - In the quarter, there were 9 VC-backed IPOs that raised $936.2 million, compared to 12 IPOs that raised $1.6 billion in all of 2009.
  - Ironwood Pharmaceuticals, QuinStreet, AVEO Pharmaceuticals, MaxLinear, and Financial Engines were some of the largest IPOs in the quarter.
- **VC-backed IPO pipeline robust**
  - According to Dow Jones, there are currently 44 VC-backed companies currently in registration with more than half of the registrations occurring in the fourth quarter.
  - New entrants include mobile TV chip designer Telegent Systems, broadband access equipment vendor Calix Networks, and online advertising solutions for local businesses company ReachLocal.
- **Anecdotally, the 'shadow' pipeline of companies preparing for IPO and in talks with bankers is significant and growing.**

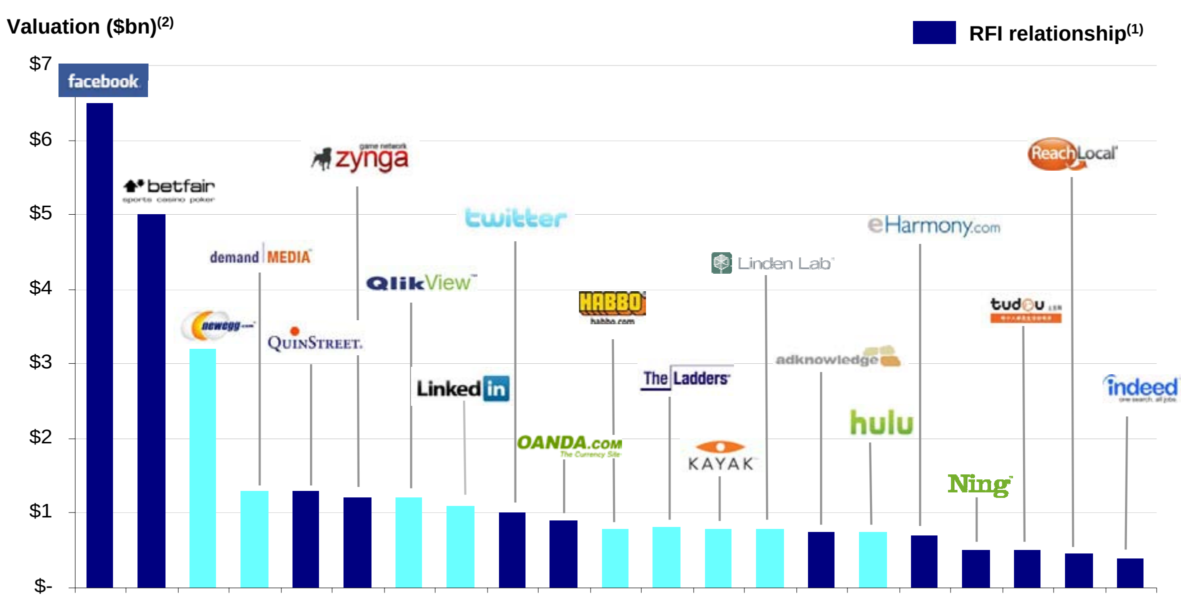
rho

Innovation is Not a Victim of Recession

- **Sustainable, outsized returns are driven by innovation and building novel companies or products that shift paradigms and have limited correlation to market timing or economic conditions:**
  - Computer shifted how we manage information (Apple, IBM, Intel, Microsoft, Compaq)
  - Internet shifted how we search and share information (Netscape, Google)
  - Email & I.M. shifted how we communicate (AOL, Yahoo, Gmail)
  - Wireless, Mobile & S.M.S. shifted where we communicate (iPhone, MetroPCS, Starent)
  - Social Networks shifted how we connect (Facebook, MySpace, Linkedin)
- **Great venture-backed successes that drive returns are not reliant on market timing:**
  - **Google** received its first institutional funding in June-1999 at the beginning of the tech-bubble, and went public in Aug-2004 in a benign public market, returning greater than 300x invested capital for the early round investors.
  - **Facebook** was founded in Oct-2003 and received its first funding in 2004 coming out of the dot-com and 9/11 driven recession. Facebook will likely IPO over the next few years at a valuation in the billions.
  - **Zynga** was founded in June-2007 at the peak of the credit bubble; rumors of a 2010 IPO of more than $1 billion.
  - **Admob** was founded in 2007 by a Wharton MBA student, received $47 million in VC funding, and after two years, Google announced in Nov-2009 that it would acquire Admob for $750 million.

rho

Examples of Private VC-backed Internet Companies



(1) RFI has exposure to that company through a fund investment; ReachLocal is a Rho Ventures investment.
(2) Source: *The SAI 50+: World's Most Valuable Internet Startups*; www.businessinsider.com.

rho

What Does This All Mean?

- **Current Phase**
  - Surveys indicate that LPs are losing interest in venture
  - 2009 was one of the most difficult years to raise a venture fund and new investment activity was lowest in over a decade
  - Renewed exit activity too late to impact returns of bubble-era funds
- **Next Phase**
  - Fund life is ending for bubble vintage funds ('99 to '01)
  - Contraction in available capital (overhang) will force GPs to triage portfolio companies more aggressively and invest more selectively
  - A smaller, but committed group of LPs
  - A smaller, stronger group of GPs
  - A greater number of older and underperforming companies will no longer be funded and fewer new companies will be funded
  - Returns for recent vintage year funds are showing promise
  - Innovation remains vibrant (new media, wireless, SAS, biotech, clean energy, etc)
- **Overall Impact**
  - Changing of the guard with a new wave of leading GPs
  - More LP-friendly terms and increased access
  - GPs will experience less competition, better entry valuations, more time for due diligence, and higher syndication risk
  - Companies will experience a higher hurdle for funding, lower valuations, and fewer "me-too" companies
  - Future vintage year funds will invest in what we believe is a very attractive environment for returns

Summary: Historical Perspective and Outlook

Vintage Year	1992 – 1997	1998 – 2002	2003 – 2008	Going Forward
Fundraising & Capital Supply	Limited Supply	Excess Supply	Moderate Supply	Contracting Supply
Investment & Manager Competition	Limited Competition	Highly Competitive	Competitive	Shrinking Competition
Entry Valuations (Years 1-3)	Low	High	Moderate	Improving
Exit Valuations (Years 3-6)	High	Low	Moderate	Improving
Industry Growth / Spending (2)	High Growth	Declining	Moderate	Moderate
Major Trends	- IT as a % of capital expenditure (increased from 40% in early 1990s to 50%) - Internet discovery - Biotech innovation requirement	- IT digestion - Internet bubble bursts - Biotech innovation requirement	- New media disruption - Emergence of on-demand software - Biotech innovation requirement	- New media disruption - Secular software shift to on-demand - Wireless data adoption - Alternative energy commitment - Biotech innovation requirement
Top Quartile IRR	Very Attractive	Below Average	Attractive	More Attractive

■ Indicates favorable environment ■ Indicates Moderate environment ■ Indicates unfavorable environment

(1) A continued weak IPO/M&A market may lengthen life cycle of venture backed companies, which may result in bigger, but fewer IPOs.
(2) Includes IT spending, online advertising, alternative energy and biotech investing.

The VC Industry at a Crossroads:
Current Issues and Thoughts

Ed Colloton

Bessemer Venture Partners

The views expressed in this presentation are those of the author and not Bessemer Venture Partners

LPs Perception of the VC Model

LPs View on VC in 2010

VC Return

- **"Show Me The Money":**
  - Average VC returns post bubble have been negative
  - Few venture-backed IPO over the past two years
- **"The Lake Wobegon Effect":**
  - Every GP can't be above average
  - Only top GPs are interesting and they are hard to get into

VC Risk

- **Heightened Liquidity Risk:**
  - Liquidity isn't there when I need it
- **Heightened Agency Risk:**
  - GPs are doing well on fees alone, regardless of LP return
  - Funds are too large & some GPs may be "asset gathering"

2

GPs Perception of the VC Model

GPs View on VC in 2010

VC Return

- **The Returns *Are* There:**
  - Returns post bubble after fees beat public market returns
  - There is a backlog of VC-companies poised to go public
- **Survival of the Fittest:**
  - LPs funded too many "me-too" GPs and companies
  - Indiscriminate funding has contributed to lower average returns

VC Risk

- **VC is About Building Great Companies, Not Flipping Assets:**
  - Long time horizon is needed to build world class companies
- **The World Has Changed:**
  - VC no longer just a Silicon Valley – Boston – NY game; larger funds and fees needed to staff and build a global VC practice

3

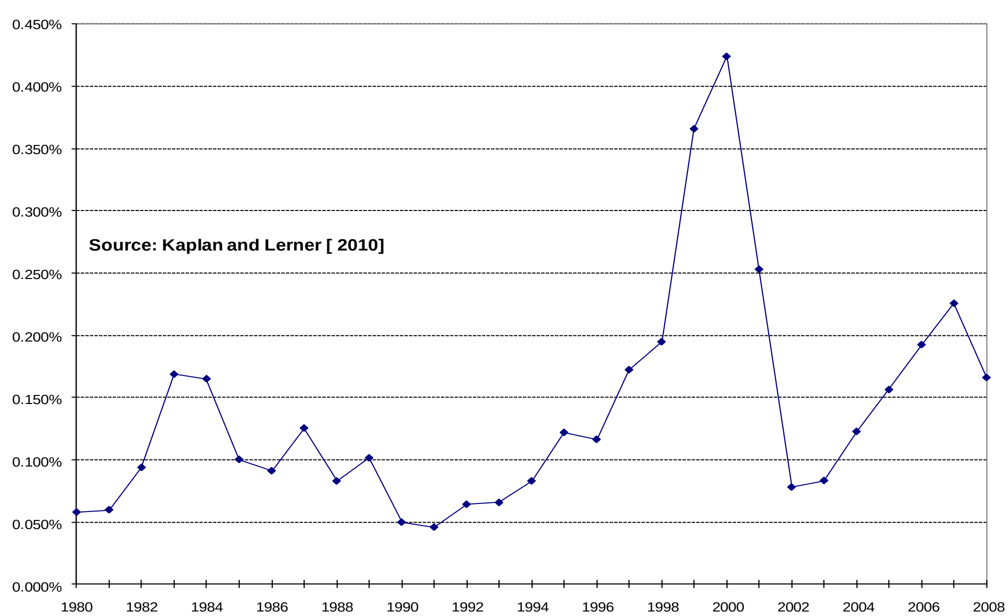
State of VC

- "Dramatic inflows of cash weaken the 'fragile ecosystem' of the venture capital industry by forcing some to 'shove' money into deals… The answer is discourage more money from coming in."

Venture Capital Journal, December 1993

Capital-weighted average IRR of contemporaneously-formed funds: ***30.7%***.

Overfunded? Commitments to VC funds as a % of equity market capitalization



Who Is Right? Observation #1

The Long "Boom and Bust" Cycle Exacerbates This Debate

6

Who Is Right? Observation #2

Changes in the IPO Market for Tech Companies Exacerbate This Debate

Fewer new companies started and funded by VCs immediately post bubble

VCs' focus on existing companies after internet and telecom bust

Time to IPO lengthened for all companies

Sarb-Ox and greater investor demands on profitability

Tech investment bank boutiques disappear

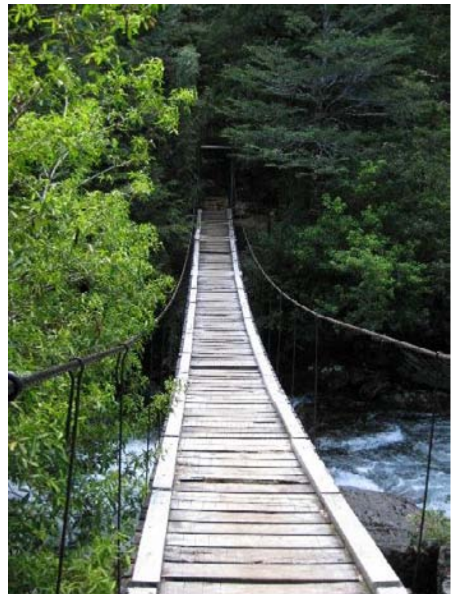
"Four horsemen" disappear; larger Banks exit business of taking small taking Tech companies public

7

Bridging the Gap Between LPs and GPs

Three Areas to Consider

1. Venture Capital Terms
2. Venture Capital Governance
3. Venture Capital Reporting & Transparency



8

Bridging the Gap Between LPs and GPs

Consideration #1

1. **Venture Capital Terms**
2. Venture Capital Governance
3. Venture Capital Reporting & Transparency

- Alter fundraising cycle to more closely match liquidity cycle?
- Move towards budget based or scaling of fees?
- Change carry % depending on ultimate fund performance (perhaps even against relative benchmark)?
- Significant GP Co-Investment?

But consider track record …
LPs are slow to embrace new terms or unusual fund models

9

Bridging the Gap Between LPs and GPs

Consideration #2

1. Venture Capital Terms
2. **Venture Capital Governance**
3. Venture Capital Reporting & Transparency

- Strengthen LP rights?
- Investment period early termination?
- Greater advisory board rights and monitoring?

But consider track record ...
Governance waxes and wanes depending on market conditions, individual GP success

10

Bridging the Gap Between LPs and GPs

Consideration #3

1. Venture Capital Terms
2. Venture Capital Governance
3. **Venture Capital Reporting & Transparency**

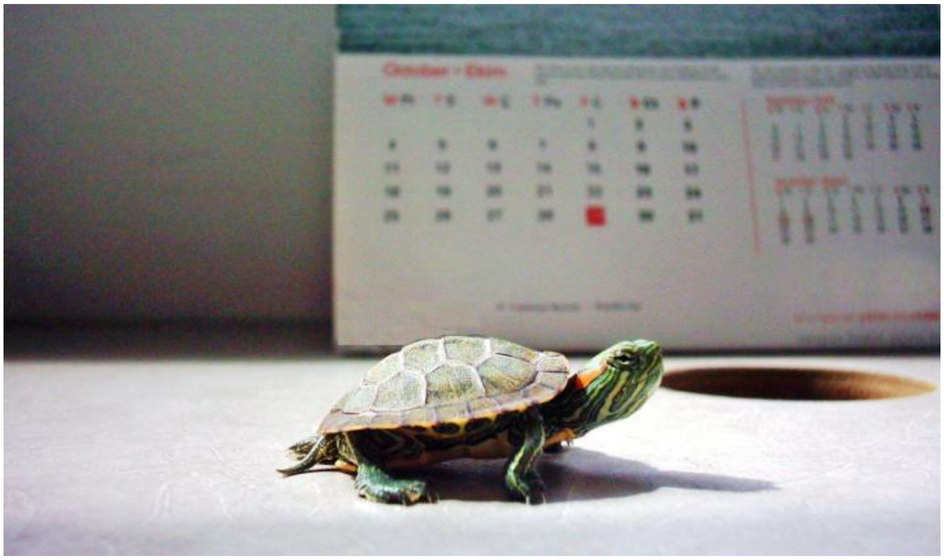
- Would better reporting help bridge this gap?
- Better VC valuation standards?
- Reporting "net" of fees and carry?
- Better disclosure during fundraising?

But consider track record ...
LP agreement complexity and portfolio company deal terms makes this hard to do!

11

What Pace of Change Can We Expect?

History Would Suggest that Change Will Occur Incrementally ...



12

What Pace of Change Can We Expect?

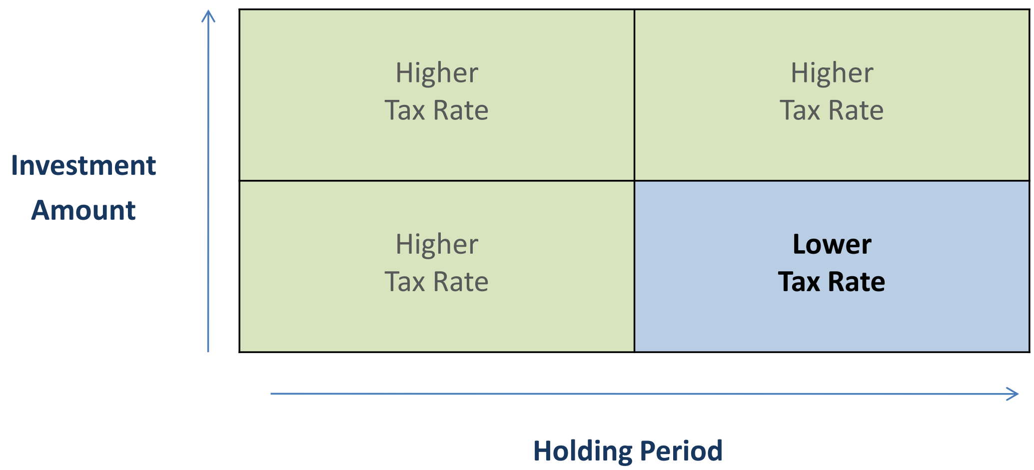
... But The World Has Been Turned Upside Down

- New VC investors may help drive changes in the model
- Aggressive regulation may force change
- GPs may be willing to consider new models in difficult fundraising environment
- Some interesting VC models are already out there - funds with:
  - Non-traditional fundraising cycles
  - Significant GP co-investment
  - Budget based fees
  - Scaling carry %

13

One Area Both LPs and GPs Can Agree On?

Consider Lower Tax Rate for Those Building Companies



14

In Conclusion

Reasons to be Optimistic About VC

- Innovation is the foundation of US growth: New company formation has accounted for most of US job growth since 1980
- VCs play a significant role: VCs fund well less than 1% of new US companies, yet participate in majority of IPOs each year[1] (2,000+ public companies financed by VCs since 1970)
- VC returns have outperformed the broader market after fees, more so for top tier funds
- VCs believe IPOs are poised to return, and with it performance will rebound, especially among top tier funds
- Less capital in VC will lead to some very good vintages

15

1. See Kaplan and Lerner (Dec 2009): 1/6 of 1% VC funded, yet VCs accounted for 60% of IPOs since 2000

INVESTING IN THE KNOWLEDGE ECONOMY OF THE FUTURE

inkef capital

Presentation to

Public Policy Forum on Venture Capital and Innovation and the Quebec City Conference

October 25–26, 2010

inkef capital is a novel strategy initiated by two pension funds, ABP and OMERS, for investing in early stage technology opportunities in Canada and the Netherlands. As such, it is a significant departure from the traditional venture capital approaches.

inkef capital

2

What inkef is

- a 15 year program with enough capital to go from early stage to mezzanine financing;
- directly owned by the two pension funds and is not based on the traditional GP/LP structure;
- based on a cost-plus formula and not on a management fee; and
- not based on a carried-interest model but on a novel allignment of upside/downside interests.

inkef capital

3

Implications of the inkef strategy - I

Issue	inkef	Implications
Fund life-time	A 15 year program	— closely aligned with pension fund liabilities — should permit harvesting investments at value inflection points
Fund capacity	Sufficient for a 15 year program	— permits staying in the investment for the long haul associated with early stage technologies — removes a degree of funding uncertainty for the investee company

inkef capital

4

Implications of the inkef strategy - II

Issue	inkef	Implications
Management fee	Cost-plus annual budget approved by the inkef joint venture board.	Annual compensation can be more closely aligned with those of the local institutional investors.
Carried interest	No carried interest but a co-investment strategy	— traditional carried interest has little down-side alignment — co-investment implies a strong up/downside alignment. — the upside alignment is not at the expense of the institutional investors

inkef capital

Implications of the inkef strategy - III

Issue	Inkef	Implications
Circuit breakers	Two significant reviews — management after 3 years — portfolio after 5 years	Should help to remove the difficulties of commitment to a failing team/strategy.
Mentoring of starting entrepreneurs	A separate but closely aligned mentoring service based on a successful US approach.	Puts mentoring in the hands of those “who have done it” as opposed to the investors.

inkef capital

Institutional Limited Partners Association

Private Equity Principles

ilpa
INSTITUTIONAL LIMITED
PARTNERS ASSOCIATION

To view the full document:
http://ilpa.org/wp-content/uploads/2009/12/ILPA-Private-Equity-Principles.pdf

ILPA Private Equity Principles

Historically, the private equity partnership structure has been effective in aligning the interests of investors (the “limited partners”) with those individuals managing the money (the “general partner”). By sharing a substantial portion of profits with the general partner and requiring the general partner to have a meaningful equity interest in their own funds, a business culture was created where most private equity firms were able to maintain a single-minded determination to maximize returns on the underlying investments. The principles contained herein are a means to restore and strengthen the basic “alignment of interests” value proposition in private equity.

Certain terms and conditions that have gradually evolved should receive renewed attention in private equity partnership agreements entered into prospectively in order to (i) correctly align interests between general partners and limited partners, (ii) enhance fund governance and (iii) provide greater transparency to investors. A summary of private equity principles is provided below. Appendix A contains details on preferred private equity terms, and Appendix B contains best practices for Limited Partner Advisory Committees (“LPAC”).

The concepts contained in these documents reflect suggested best practices and are intended to serve as a basis for continued discussion among and between the general partner and limited partner communities with the goal of improving the private equity industry for the long-term benefit of all its participants. These documents were developed through the efforts, contributions and collaboration of many institutional private equity investors and their senior investment officers, the Institutional Limited Partners Association (“ILPA”) and the Private Equity Principles and Best Practices Committee of the ILPA Board of Directors. They reflect the input and feedback from these market leaders and from discussion amongst limited partners at ILPA roundtable events and from a comprehensive survey/questionnaire of the ILPA membership. A list of organizations that endorse the ILPA Private Equity Principles will be posted on the ILPA website (www.ilpa.org).

With the typical limited partnership agreement and related documents numbering well over a 100 pages and containing thousands of clauses it has become increasingly difficult to focus on what aligns the interests of the limited partner with the general partner. These documents will serve as an educational medium. The authors and sponsors of these documents are not seeking the commitment of any private equity investor to any of the outlined terms.

To view the full document:
http://ilpa.org/wp-content/uploads/2009/12/ILPA-Private-Equity-Principles.pdf

Best Practices in Private Equity Partnerships

Alignment of Interest

- The agreed profit split in commingled funds has typically worked well to align interests, but tighter distribution provisions must become the norm in order to avoid clawback situations.
- Clawbacks must be strengthened so that when they are required they are fully and timely repaid.
- Management fees should cover normal operating costs for the firm and its principals and should not be excessive.
- All transaction and monitoring fees charged by the general partner should accrue to the benefit of the fund, including offsetting management fees and partnership expenses during the life of the fund.
- The general partner should have a substantial equity interest in the fund to maintain a strong alignment of interest with the limited partners, and a high percentage of the amount should be in cash as opposed to being contributed through the waiver of the management fee.
- Changes in tax law that personally impact members of a general partner should not be passed on to limited partners in the fund.
- Fees and carried interest generated by the general partner of a fund should be directed predominantly to the professional staff and expenses related to the success of that fund.

To view the full document:
http://ilpa.org/wp-content/uploads/2009/12/ILPA-Private-Equity-Principles.pdf

Governance

- General Partners should reinforce their duty of care. The "gross negligence, fraud, and willful misconduct" indemnification and exculpation standard should be the floor in terms of what is agreed to by limited partners. Recent efforts by the general partner to (1) reduce all duties to the fullest extent of the law, (2) demand the waiver of broad categories of conflicts of interests and (3) allow it to act in its sole discretion even where a conflict exists should be avoided.

- Investments made by the general partner should be consistent with the investment strategy that was described when the fund was raised.

- The general partner should recognize the importance of time diversification during the stated investment period as well as industry diversification within the portfolio.

- A supermajority in interest of the limited partners should have the ability to elect to dissolve the fund or remove the general partner without cause. A majority in interest of the limited partners should have the ability to elect to effectuate an early termination or suspension of the investment period without cause.

- A "key-person" or "for cause" event should result in an automatic suspension of the investment period with an affirmative vote required to reinstate it.

- The auditor of a private equity fund should be independent and focused on the best interests of the partnership and its limited partners, rather than the interests of the general partner.

- Limited Partner Advisory Committee meeting processes and procedures should be adopted and standardized across the industry to allow this sub-body of the limited partners to effectively serve its role.
  Appendix B serves as a model.

To view the full document:
http://ilpa.org/wp-content/uploads/2009/12/ILPA-Private-Equity-Principles.pdf

Transparency

- Fee and carried interest calculations should be transparent and subject to limited partner and independent auditor review and certification.
- Detailed valuation and financial information related to the portfolio companies should be made available as requested on a quarterly basis.
- Investors in private equity funds should have greater transparency as requested with respect to relevant information pertaining to the general partner.
- All proprietary information should be protected from public disclosure.

To view the full document:
http://ilpa.org/wp-content/uploads/2009/12/ILPA-Private-Equity-Principles.pdf

Panel 2

Which public policies to support the industry in a period of transition?

Moderator: **Mr. Stephen A. Hurwitz**
Co-Founder and Chair
The Quebec City Conference

Panellists:

Mr. Rory Earley
CEO
Capital for Enterprise Ltd

Mr. Pascal Lagarde
CEO
CDC-Entreprises

Mr. Jonathan Silverstein
General Partner
Orbimed Advisors

Table of content

Panel 2

7.1 Introduction

Based on existing research and on last year's Public Policy Forum discussions, it appears that there is a broad consensus around the case for government intervention to support the venture capital industry because of (i) the strong impact it has on innovation and economic growth and (ii) the positive externalities associated with it.

There is also a consensus around the main pitfalls these interventions could encounter due to lack of proper understanding of how the markets work (ill designed programs, counterproductive sets of constraints, lack of skills in implementation) or to regulatory capture.

Finally, there is also a consensus around the major success conditions for government intervention: (i) ensure the environment (legal, fiscal, support to R&D, intellectual property management) is right and (ii) work with the market. In order to achieve the latter, using "matching funds" as market signal seems to be the right way to go.

On the supply side (capital formation), which is going to be the focus of this panel, it is widely understood that the problem is not only "money" but "smart money", which is capital managed by teams with the right skills and networks.

So where is the problem?

It may be twofold:

First, the right skills are scarce, especially in peripheral markets. What is needed to attract them and accelerate the learning curve of local teams?

Second, in the present situation, if it is confirmed that LPs are deserting the asset class, how is it possible to work with the market? What is needed to attract them back to the asset class?

Rory Earley and Pascal Lagarde are running a series of government programs for the UK and French governments. Their background information provides very clear and interesting syntheses of the various tools they have developed and the lessons they have learned. Building on this information, the panel will explore what needs to be done to face the present situation.

Jonathan Silverstein is a partner at Orbimed, a large health-care dedicated investment firm based in New York which recently applied successfully to the Israeli Biotech funds program. This program is designed to attract experienced management teams and entails very strong incentives (please see background information). The panel will among other things discuss the role of incentives to attract private sector investors, and how to make sure that it will result in “smart money”.

Steve Hurwitz, chair and co-founder of the Quebec City Conference, is one of the most experienced venture capital lawyers in North America and a long time advocate of the Venture Capital industry in the US and Canada. He will be the moderator of the panel.

Additional background on Ontario’s Venture Capital Initiatives provides another example of government response to the present situation.

Panel 2

Moderator

Mr. Stephen A. Hurwitz
Co-Founder and Chair
The Quebec City Conference

Stephen A. Hurwitz is a member of Choate's Business & Technology Practice Group. He concentrates in business, corporate and securities law. He focuses on cross-border issues relating to venture capital and technology and life sciences companies, including representing non-US companies in all their US legal needs in addressing the US market and in raising capital and protecting their IP in the US. Choate also represents non-US venture capital funds when investing in the US and in their US fundraising.

Mr. Hurwitz has represented companies at all stages of growth from start-ups through mature public companies both in their US and international activities. His practice has included private and public financings, mergers and acquisitions, joint ventures, licensing, and distribution transactions.

Mr. Hurwitz is a frequent speaker and panelist at many of the major technology, life sciences and venture capital events in Canada. He was formerly a co-founder and chairman of Testa, Hurwitz & Thibeault, LLP.

Panellist

Mr. Rory Earley
CEO
Capital for Enterprise Ltd

Rory Earley was appointed CEO and Chief Investment Officer of Capital for Enterprise in April 2008 following 4 years of advising the UK Government on the development and implementation of its venture capital programmes. Prior to that, he was Senior Investment Manager at Westport Private Equity Ltd, Europe's oldest fund-of-funds manager, where he was responsible for designing and investing in venture capital funds around the world. Rory was previously responsible for developing and implementing the UK Government's first interventions in venture capital funds in the 1990s. He has been Chair of a successful University spinout company, chair of an EU expert group on risk capital, member of the Investment TaskForce advising UK Government and was until recently also a Director of Greece's first venture capital investment company (TANEO). Rory holds an MBA from Sheffield University and, after his family and his work, is passionate about rugby (watching and coaching), classic British sports cars, walking and fine food and wine.

Panellists

Mr. Pascal Lagarde
CEO
CDC-Entreprises

Pascal LAGARDE, a Chief Armament Engineer, 47, graduated from the Ecole Polytechnique (X 82) and the Ecole Nationale Supérieure des Techniques Avancées. He began his career as head of program at the General Delegation for Armament of the French Ministry of Defense, in the telecommunications sector (1987-1993). At the Ministry in charge of the Industry (1994-1998), within the General Division for the Industry, Information Technology and the Posts, he became successively the assistant of the "electronic components" assistant director, "IT and telecommunications" assistant director, and at end 1998, "programs and prospective" assistant director, a position where he was particularly in charge of e-commerce, the dissemination of the Internet in SMBs, and in charge of the "information society" program.

In September 1999, Pascal LAGARDE was appointed Head of the Venture and Seed Capital Department of CDC PME (Groupe Caisse des Dépôts) and, in 2001, he became in charge of CDC PME's international activities, assistant Managing Director of CDC PME, and Chairman of its subsidiary CDC PME Gestion, in charge of mid caps. In June 2003, he was appointed Managing Director of CDC PME and its subsidiary FP Gestion. In September 2006, as part of the reorganization of the private equity activities of Caisse des Dépôts, Pascal LAGARDE was appointed Managing Director of CDC Entreprises, a wholly owned subsidiary of Caisse des Dépôts, from now on in charge of CDC general interest programs for SMEs equity financing, especially in the frame of the "France Investissement" program: technological venture capital, expansion capital and smallcap LBOs. CDC Entreprises is a management company, managing fund of funds and direct investment funds. The main LP of these funds is the Caisse des Dépôts group (notably the Fonds Stratégique d'Investissement). Other LPs include public and private financial institutions and industrials firms.

Pascal LAGARDE is Chairman of the Supervisory Board of Sophia Eurolab, a Board member of Proparco, CDC Entreprises, Siparex associés, Micromécanique des Dames Marie, l'Institut CDC pour la Recherche, CDC International, CDC France Brevets, Kurma biofund, Prométhéus Foundation and INRIA transfert, Vice-President of Capintech.

Mr. Jonathan Silverstein
General Partner
Orbimed Advisors

Mr. Silverstein is a General Partner of OrbiMed, an asset management firm solely focused in healthcare with roughly $5 billion in assets under management. Mr. Silverstein joined OrbiMed in 1998 to focus on private equity and structured transactions in small capitalization public biotechnology and medical device companies. Mr. Silverstein was previously a Director of Life Sciences in the Investment Banking Department at Sumitomo Bank. Mr. Silverstein has a J.D. and an M.B.A. from the University of San Diego, and a B.A. in Economics from Denison University. Currently, Mr. Silverstein is a Director of Cerapedics, SuperDimension, Enobia and Insulet Corporation (PODD). He has been a former director or observer in more than a dozen other companies including: LifeCell (LIFC), Given Imaging (GIVN), Cerexa (sold to Forest Labs), Peninsula Pharmaceuticals (sold to JNJ), Predix (sold to EPIX), Avanir (AVNR), Orthovita (VITA), Auxillium (AUXL), Bioenvision (BIVN), Adiana (sold to Cytyc), Adolor (ADLR) and Emphasys Medical.

STIMULATING THE PROVISION OF VENTURE CAPITAL WITH PUBLIC FUNDING : THE UK EXPERIENCE

Background

The UK Government has been investing public funds to support the Venture Capital (VC) industry in the UK since the late 1990s. In addition to this direct investment activity, the UK Government provides tax reliefs to individuals to invest through funds (Venture Capital Trusts) and directly (Enterprise Investment Scheme). This paper focuses on funded interventions rather than tax reliefs.

Unlike less mature VC markets, the UK Government has not needed to invest to stimulate the creation of a VC industry. The UK has had a viable and active VC market since the establishment of the Industrial and Commercial Finance Corporation (ICFC, later 3i) in the 1940s. That market has developed rationally with investors gravitating towards those investment opportunities which, in aggregate, offer the highest and/or most stable financial returns. Historically those investments have been in leveraged buyouts and larger development capital deals and institutions have increasingly backed funds investing in those areas. The gravitation of capital towards these deals has left a shortage of capital to meet the needs of viable, smaller innovative companies. This shortage is commonly referred to as "the equity gap". Since 2003 this gap has been considered to be "structural", i.e. the fundamental economics of small deals in higher risk companies will always fail to deliver the returns available from investing in larger, more stable businesses.

UK Government believes there are significant economic benefits to be gained from investment in smaller, innovative companies and is prepared to invest to ensure such investment continues to take place. In the belief that every £1 invested will generate more than £1 of economic value[1], the Government also sees the benefit of leveraging in private funding to this sector of the VC market and has been prepared to structure its investments in such a way as to provide an incentive to private investors to invest alongside it in the "equity gap", even if that increases the chances of the public investment being "lost".

The UK Government also sees considerable benefit from engaging with private investors because of the disciplines that private investors can bring to the monitoring, management and commerciality of the investment programmes developed. It is acutely aware of the risk of political distortion, however unintentional, that Government can be perceived to bring to corporate investment.

In order to attract private investment, Government has sought to provide the minimum incentive necessary to attract private capital. It has introduced a number of programmes over the years, each with differing objectives and each therefore with a different structure of incentives. The main programmes are listed in the table attached, along with details of their size, whether the Government investment is subordinated and the leverage generated.

[1] defined as the benefits from increased turnover, employment, exports, productivity etc'

Experience

In reality, a complex matrix of the structure of Government investments has developed. The type and degree of subordination of Government investment tends to be driven by:

- the severity of the restrictions placed on the investment mandates (often defined by size and driven by EU Competition rules),
- the types of investor targeted (institutions or HNWI[2]s, financial or philanthropic) and their current appetite for this investment class,
- the stage of investments targeted (seed, start-up etc'),
- the ability to build a large, diversified portfolio of investments through a fund-of-funds vehicle,
- the stage of the investment cycle (vintage year) the programme is introduced
- the existence of a Global Financial Crisis (GFC)

and this list is not comprehensive!

Summary and Questions

Design of the structure of Government investment to address equity gaps is never going to be easy. It will always depend on the state of the development of the individual national, or sub-national market and an assessment of the factors above. Much of that assessment will be predictive and subjective, in particular, estimating what returns might be available from any investment programme and hence the degree of subordination required to encourage the investors to choose to invest alongside Government rather than in alternative opportunities.

There are also other hazards to be considered. One is the effect of the existence of a subordinated investor on fund managers. If a manager believes that one of the investors in his fund is seeking a reduced, or even negative return, will he maintain his investment discipline and only seek the best investment opportunities?

There is also too little evidence yet of the economic impact or economic return of funds investing in the equity gap. Even in the UK, over 10 years experience has still not generated sufficient data to be able to make a robust assessment of returns to the economy (because the highest returns from investments are still "prospective"). Given the length of these time horizons, it could be a considerable act of faith for any Government to continue investing over decades, let alone to continue an investment programme of a predecessor Government.

With an increasing acceptance that all VC investment, outside of a few select super-funds, has failed to deliver on expectations, the absence to date of new, more efficient and effective VC investment models and the lack of evidence of wider economic benefit, it must be questioned also whether Governments can continue to fund such activity in a period of austerity.

---

[2] High Net Worth Individuals

Fund Programme	Fund Type	Gov't Commitment	Private commitment	Leverage public: private	Status of Government commitment	Investment Restrictions
Current Programmes						
Enterprise Capital Funds	Public/Private VC funds investing in the equity gap	£156.2 m	£81.3m	~1:0.5	Priority return at Gilt rate, then suppressed profit share	Yes, maximum investment £2m
Aspire Fund (Investing in Women-led businesses)	VC Co-investment Fund	£12.5m	>£12.5m	1:>1	Parri passu	No
Office of the 3rd Sector (Cabinet Office)	VC Fund investing in social enterprises	£5m	>£5m	1:>1	Parri passu	Yes. Sectoral
UK Innovation Investment Fund	Fund-of-fund structure GFC Response Measure	£150m	>£175m	1:1.2	Parri passu	No (except "innovation" and some sectoral targets)
Legacy Programmes (no longer making new investments or loans)						
Capital for Enterprise Fund	Fund-of-funds providing growth capital GFC Response Measure	£50m from BIS	£25m	1:0.5	Parri-passu	Yes. Maximum investment £2m
Regional Venture Capital Funds	**9** VC Funds	£74.4m	£250.5m	1:2.4	Subordinated preferred	Yes. £500k maximum investment and regional
UK High Technology Fund	Early stage Technology VC Fund of Funds	£20m	£126.1m	1:5.3	Subordinated	No (except technology and expectation of earlier stage)
Bridges CDVF	VC Fund investing in deprived areas	£20m	£40m	1:1	Part subordinated	Yes. Geographical and State Aids
Early Growth Funds	**6** Venture Capital Funds and a Mezzanine Fund	£31.5m	£63m (min)	1:>1	Parri-passu	Yes. c£200k investment size and normally co-investment

cdc entreprises

Which public policies to support the industry in a period of transition : The experience of CDC Entreprises on the French Market

QCC Public Policy Forum on Venture Capital and Innovation

Pascal LAGARDE

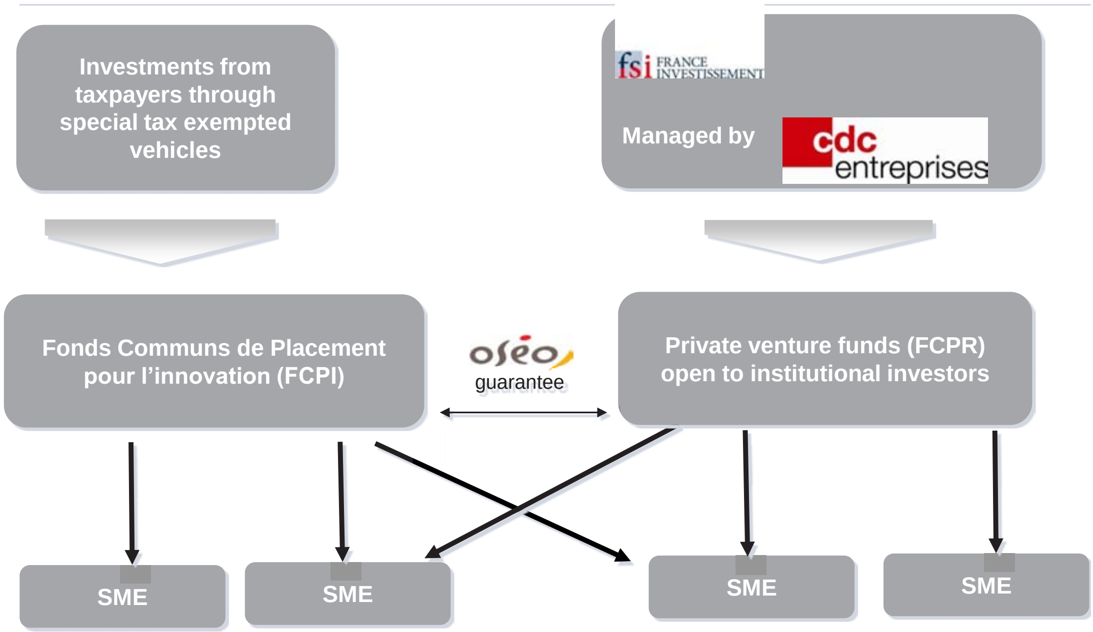
CEO CDC Entreprises

October 2010

Table of contents

cdc entreprises

French public policy tools to support venture capital



cdc entreprises

FCPI

- An FCPI ("fonds commun de placement dans l'innovation") is a tax incentived venture capital fund.
- 60% of the assets of an FCPI must be invested in innovative French unquoted companies.
- The innovative nature of a company is judged :
  - according to its spending on research and development,
  - or whether it has been approved by Oseo (the French public agency).
- The company must also satisfy a number of criteria:
  - Size of staff is less than 500 employees
  - Majority of the capital has to be held by individual investors or investment funds
- FCPIs are subject to specific limits on the holding of assets and distribution of risk within portfolios.
- FCPIs are subject to approval and auditing by the AMF (the French financial markets authority).
- it entitles income tax relief equivalent to 25% of the amount invested as well as full exemption from capital gains tax on all FCPI units held for more than five years.

FCPI

	Vintage 2008	Vintage 2009
Amount raised	567 M€	471 M€
Number of funds created	41	47
Number of GPs	33	38

OSEO Garantie is strongly committed to support the financing of SMEs' innovation and R&D investments

Venture capital guarantee

- General guarantee schemes dedicated to early-stage investments (around 300 mn€ guaranteed each year) made by :
  - Non-fiscal funds (funded by CDC Entreprise)
  - Specific fiscal funds (FCPI only, funded by French government)
  - Large business angels associations
- Specific Biotech Scheme
  - Combined loans and equity guarantee schemes, largest individual amounts

VC industry is also indirectly supported by OSEO

- Guarantee scheme for medium and long term unsecured loans for innovative SMEs (600 Mn€ in 2009)
- Direct financing of innovative projects through subsidies and refundable advances (560 Mn€ to 4.000 companies in 2009)
- Venture loans dedicated to very early-stage situations

cdc entreprises

6

OSEO equity guarantee scheme is balanced to provide sufficient impact while preserving the specific incentives of GPs and LPs

Access to guarantees

- VCFs ' management team, investment strategy (focus on innovation), and past performances are reviewed prior to signing an annual framework agreement,
- This agreement grants an annual portfolio « insurance », including a maximum total investments amount, for eligible investments (shares, convertibles or venture loans in early stage, i.e less than 7 years old SMEs)
- VCFs' investment decisions are then totally free (all eligible investments are guaranteed until max investment amount is reached).

Financial conditions

- a 50 % guarantee given to VCFs for 10 years,
- a guarantee raised to 70 % for less than 5 year-old enterprises,
- a 30% "stop-loss" ceiling determined as a proportion of the portfolio composition,
- an annual guarantee fee on the investment amount (0,30%),
- a 10 to 15% share in capital gains made by the VCFs.

cdc entreprises

7

Benefits expected are an enhanced attractiveness of VC in France and enhanced financing conditions for start-ups

Benefits for the Government

- Enhanced attractiveness of venture capital to LPs (facilitated fund raising)
- Maintained capital allocation on early-stage (eligibility criteria),
- Strictly controlled risk thanks to the "stop-loss" technique,
- High leverage on public money (when VCFs achieve a positive IRR, the leverage increase dramatically).

Benefits for VCFs (and their LPs)

- Smoother " J curve " : quicker break-even and smaller losses during the first years ,
- Ability to make some riskier investments (possible guarantee coverage of up to 70% on 1st round financing),
- Simple formalities and quick decisions,
- Portfolio insurance mechanism with total delegation of decision.

Table of contents

Background and Identity

CDC ENTREPRISES

- A 100% subsidiary of Caisse des Dépôts founded in 1994
- Dedicated to private equity funds' management focused on SMEs with high value technologies and expansion strategies
- AMF registration number: GP 01006 / €4.8b under management
- 45 seasoned investors backed by state of the art MO and BO

CAISSE DES DEPOTS

- A French State-owned financial Institution founded in 1816
- "The safest bank in the world in 2007 and 2008", *Global Finance magazine*
- €221b Total Assets / AAA/aaa Rating
- Established by the Law of 28 April 1816 under the supervision and guarantee of the French parliament / Governed by Articles L 518-1 to L 518-24 of the French Monetary and Financial Code
- Business model combines long-term investments, a portfolio of operating subsidiaries and management of public mandates
- A strategic plan composed by 4 missions: housing, universities, SMEs' equity and environment

Key dates

1994 – Launch of the first three-year Program with €260m committed by the Caisse des Dépôts

1998 – Launch of the first generation of Venture Capital funds of funds managed by CDC Entreprises on behalf of third parties (EIB and French State)

1999 – Creation of the first seed funds sponsored by CDC Entreprises

2000 – Launch of the second generation of Venture Capital funds of funds managed on behalf of French State, EIB and Caisse des Dépôts, and the funds of funds activity focused on Maghreb countries

2002 – Launch of the first direct fund managed by CDC Entreprises: the FCJE (€90m total commitments) focused on early stage high-tech companies

2004 – Launch of the second Program with the French Government – Within such five-year agreement, the Caisse des Dépôts undertakes to commit each year €150m within the SME-Innovation Program in order to finance high growth potential companies

2005 – Launch of the third generation of Venture Capital funds of funds (FFT3 with €150m total commitments)

2005 – Launch of the second direct fund managed by CDC Entreprises: Patrimoine & Création (P&C)

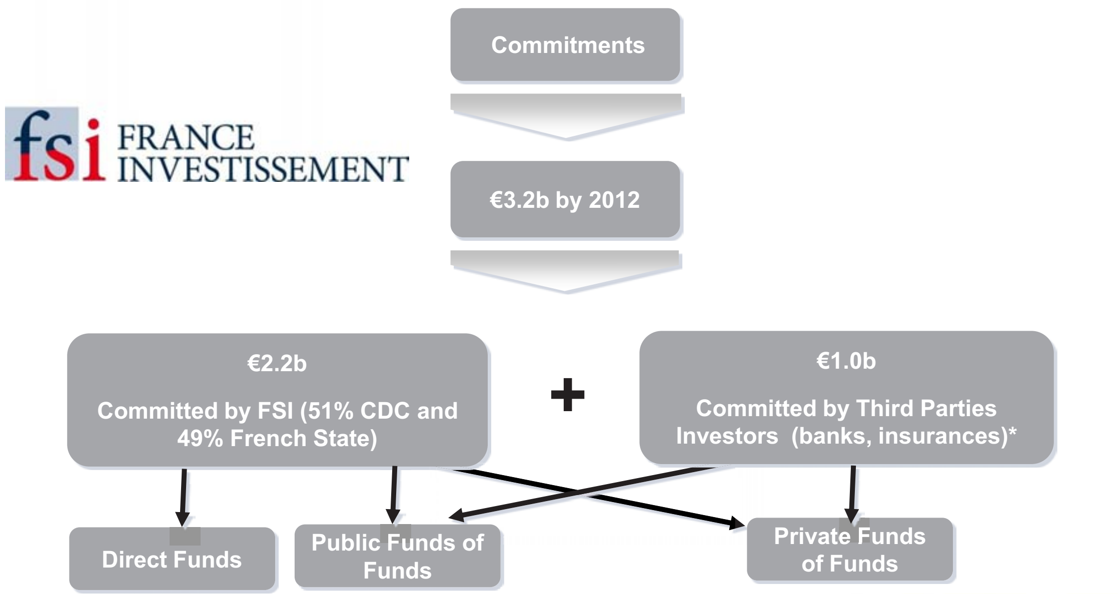
2006 – Launch of the third Program with the French Government – CDC Entreprises will commit €2.2b in Venture Capital and Expansion funds ("France Investissement")

2008 – Through its various Programs, CDC Entreprises funded 1 SME / day (directly and indirectly)

2009 – Past and future commitments of the Caisse des Dépôts in "France Investissement" are transferred to the French Strategic Investment Fund (FSI – Fonds Stratégique d'Investissement) which becomes the major LP of CDC Entreprises

2010 – Launch of several new direct funds (OC+, bois, Innobio). French government gives a new fund of fund mandate for seed funds (400 Me)

FSI France Investissement Purpose

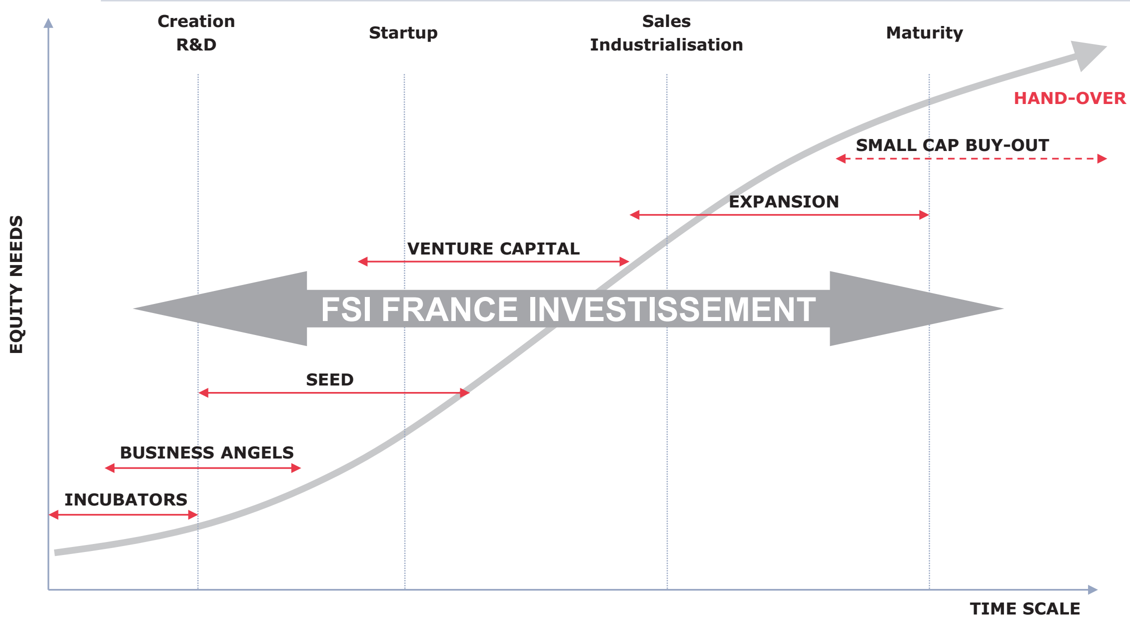


* France does not have pension funds

cdc entreprises

12

FSI France Investissement Coverage



FSI France Investissement is a corner stone of SMEs' expansion plan

cdc entreprises

13

Key Figures

+ 15 years experience in small cap private equity (1994-2010)

€4,8 b under management

LP in over 200 funds
Financing 2,500 SMEs
180 are French funds

Selected co-investments in 60 SMEs

As of June 30th, 2010

People

INVESTMENT TEAM

- 45 professionals, of which 15 dedicated to funds of funds
- Complementary backgrounds (business schools, engineering schools, universities)
- Composed of highly skilled people having diversified experiences including inter alia direct investment (venture capital and expansion), investment banking, business law, audit and consulting

BACKED BY INTEGRATED SUPPORT FUNCTIONS

- Dedicated compliance officer registered at the French Financial Markets Authority
- Strong middle-office
- Back-office with an extensive experience in reporting to numerous and various LPs
- Integrated HR management

Existing Limited Partners

FINANCIAL INSTITUTION

Caisse des Dépôts · fsi Fonds Stratégique d'Investissement · Proparco Groupe Agence Française de Développement · Caisse de Dépôt et de Gestion · European Investment Bank · European Investment Fund

GOVERNMENT

Liberté • Égalité • Fraternité République Française · Ministère de l'Économie de l'Industrie et de l'Emploi

BANKS

CA · BPCE · Intesa Sanpaolo

CORPORATE

Eiffage · Roche · Novartis · Takeda Pharmaceutical Company Limited · Pfizer · gsk GlaxoSmithKline · Office National des Forêts · sanofi aventis · Lilly · Ipsen · Boehringer Ingelheim

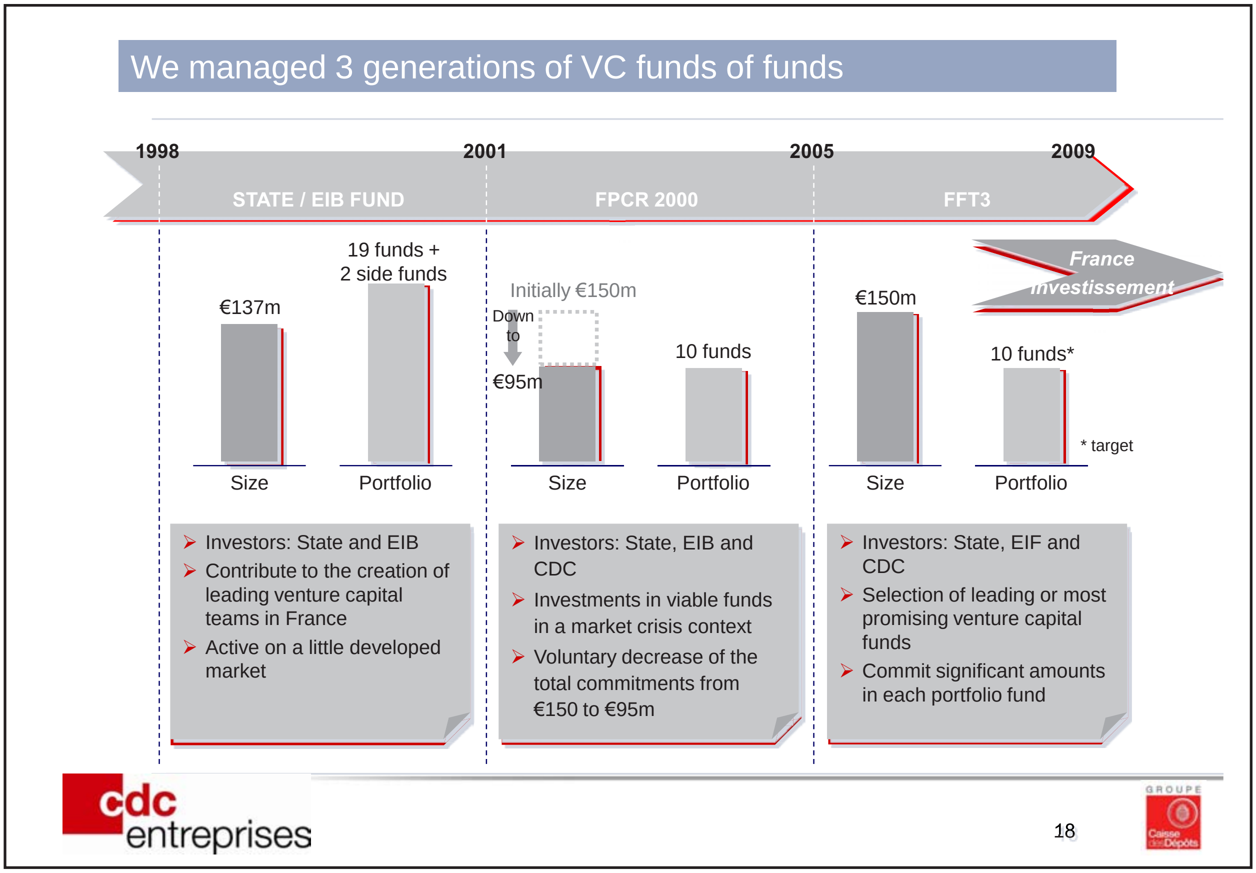
cdc entreprises

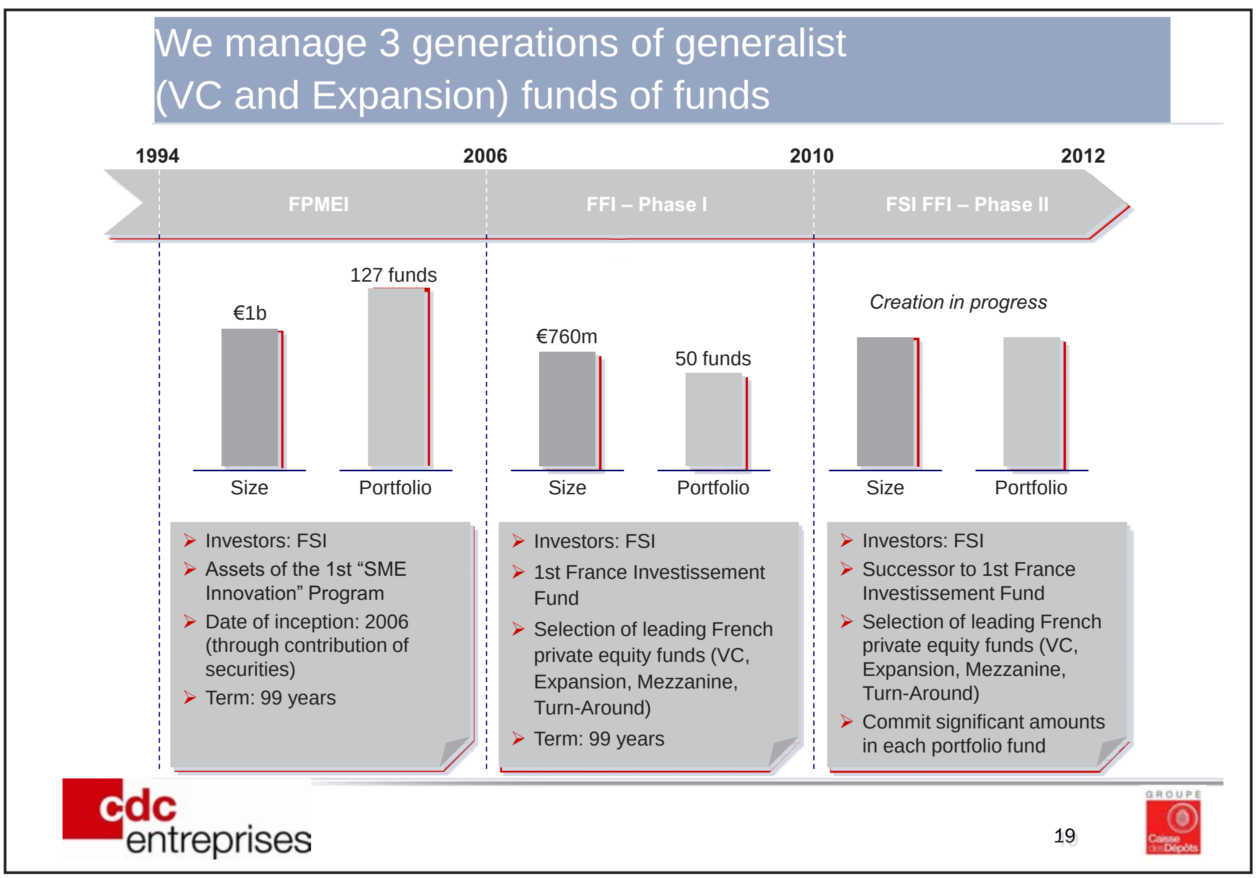
Groupe Caisse des Dépôts

Table of contents

cdc entreprises

Groupe Caisse des Dépôts


We managed 3 generations of VC funds of funds
1998
2001
2005
2009
STATE / EIB FUND
FPCR 2000
FFT3
France Investissement
€137m
19 funds + 2 side funds
Size
Portfolio
Initially €150m
Down to
€95m
10 funds
Size
Portfolio
€150m
10 funds*
* target
Size
Portfolio
Investors: State and EIB
Contribute to the creation of leading venture capital teams in France
Active on a little developed market
Investors: State, EIB and CDC
Investments in viable funds in a market crisis context
Voluntary decrease of the total commitments from €150 to €95m
Investors: State, EIF and CDC
Selection of leading or most promising venture capital funds
Commit significant amounts in each portfolio fund
cdc entreprises
18
GROUPE Caisse des Dépôts


We manage 3 generations of generalist (VC and Expansion) funds of funds
1994
2006
2010
2012
FPMEI
FFI – Phase I
FSI FFI – Phase II
€1b
127 funds
Size
Portfolio
€760m
50 funds
Size
Portfolio
Creation in progress
Size
Portfolio
Investors: FSI
Assets of the 1st "SME Innovation" Program
Date of inception: 2006 (through contribution of securities)
Term: 99 years
Investors: FSI
1st France Investissement Fund
Selection of leading French private equity funds (VC, Expansion, Mezzanine, Turn-Around)
Term: 99 years
Investors: FSI
Successor to 1st France Investissement Fund
Selection of leading French private equity funds (VC, Expansion, Mezzanine, Turn-Around)
Commit significant amounts in each portfolio fund
cdc entreprises
19
GROUPE Caisse des Dépôts

Investment Strategy

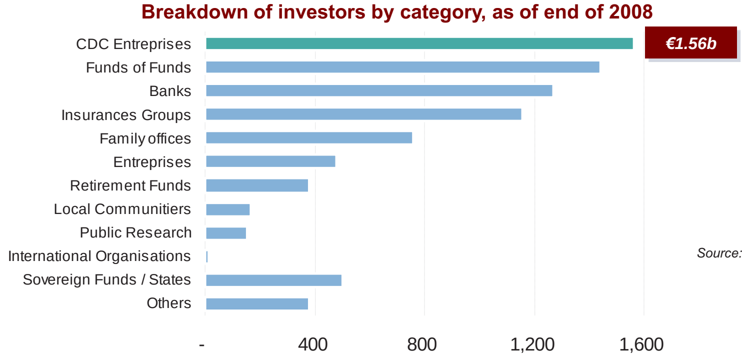
- Investment strategy covering all stages:
  - seed/early stage
  - late stage including high tech capital
  - Venture loan
- Target fund size increased over time with a minimum size of first closing at 50 M€ for capital intensive investment strategies (since 2005)
- Funded VC funds allowed to invest, to a certain extend, abroad, especially in other EU countries
- Focus on leading French venture capital funds as well as first time funds or even first time teams when a sound strategy and a substantial experience are presented

Expansion Capital Funds Investment Strategy

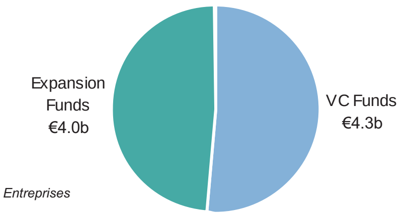
- Investment strategy covering :
  - Pure expansion capital (minority investment in equity)
  - Sponsorless mezzanine
  - Turn around
  - For a limited part, small-cap buy outs (primary and mainly MBOs or OBOs)
- Small caps expansion capital is clearly a national activity : only one cross border fund (CATHAY PE which invest in France and in China)
- Focus on fund managers creating value through growth (internal or external) of portfolio companies. Leverage must be limited

CDC Entreprises is the 1st investor of its portfolio funds

Breakdown of investors by category, as of end of 2008



Distribution of total commitments managed by portfolio funds



Source: CDC Entreprises

CDC Entreprises represents 19% of the total commitments of the 169 portfolio funds, i.e. €1.56b as of December 31, 2008 (+26%)

- 18% of the commitments of venture capital funds (€782m)
- 19% of the commitments of expansion funds (€780m)

CDC Entreprises finances, inter alia:

- 36% of the commitments (i.e. €450m) managed by seed teams
- 22% of the commitments (€1b) managed by local/regional teams

Table of contents

Investment Policy Drivers

- Long term investor:
  - Commitment to the venture capital asset class (regardless the financial markets' and economy's situation)
  - No expectation of value creation on a short term basis nor through excessive leverage
- Target a reasonable and sustainable IRR on the long term for our sponsor and investors
- Investment policy driven by financial and economic rationales
- Primary investments (and incidentally secondaries in funds in which we are already an investor)
- As the case may be, creation of new leading players on underserved market segments

cdc entreprises

24

GROUPE Caisse des Dépôts

General investment rules

- CDC Entreprises makes commitments on a fund selection basis
- In accordance with high market standards (consistent with ILPA guidelines)
- Alongside and pari passu with private investors
- In order to act in the best interest of its LPs :
  - Extensive due diligences
  - Commitments in accordance with standard liquidity and returns expectations
  - Balanced portfolio allocation (in terms of stages and sectors)
- Active investment follow-up through Advisory Committee

cdc entreprises

18

25

GROUPE Caisse des Dépôts

A professional and market practice
Investment process

1. Assessment of attractiveness of fund project on the basis of PMM and 1st meeting with team
   - ⇨ Investment strategy and main terms and conditions of the fund
   - ⇨ Credibility of the team
   - ⇨ As the case may be, quality of the business relations with CDC Entreprises

☑ **Review in weekly Executive Board (CDC) or monthly Investment Committee (third parties investors)**

2. Extensive due diligences
   - ⇨ Attractiveness of investment strategy / Opportunities for investing in the fund's targeted market
   - ⇨ Quality of the team's deal-flow
   - ⇨ Reputation, experience and track record of the team
   - ⇨ Detailed portfolio analysis
   - ⇨ Transparency of business practices of the team
   - ⇨ Quality of reporting to investors
   - ⇨ Compliance
   - ⇨ Commitment and fund-raising at first closing

☑ **Approval and sign-off of Investment Committee**

3. Negotiation of fund's terms and conditions
   - ⇨ Main provisions of the fund (key man, divorce, fees and expenses, etc…)
   - ⇨ Review viability of management company / GP

☑ **Finalization of legal documentation and subscription to the fund**

Funds of Funds portfolio's sample

Venture Capital funds

SOFINNOVA
PARTECH INTERNATIONAL
BANEXI VENTURES PARTNERS
EDMOND DE ROTHSCHILD INVESTMENT PARTNERS
innovacom
360 CAPITAL PARTNERS

Expansion funds

LA FINANCIÈRE PATRIMONIALE D'INVESTISSEMENT
Céréa
EDMOND DE ROTHSCHILD INVESTMENT PARTNERS
BLACKFIN CAPITAL PARTNERS
Cathay Capital Private Equity
SIPAREX SIGEFI PRIVATE EQUITY
DeMeter PARTNERS

Table of contents

cdc entreprises

GROUPE Caisse des Dépôts

Situation of the French Venture Capital market

- Numerous teams on the market
- Limited number of LPs willing to commit to VC funds and some are currently exiting this asset class or involved in special situations (e.g. mergers, etc..)
- Funds' sizes are decreasing but raising time is increasing…
- A move to later stage type of investments
- Underperforming teams are going to go out of business
- Seed financing is substantially decreasing: the French "Grand Emprunt" will dedicate €400m to seed funds and CDC Entreprises should be the operator

cdc entreprises

GROUPE Caisse des Dépôts

Situation of the French Expansion Capital market

– A limited number of pure plays, but expansion capital transactions are back

– A lot of funds managers moved to mid-market buy out – it will be difficult for them to go backwards… Managers who remained on their initial market are well positioned in the current situation

– Mezzanine investments (convertible bonds with warrants) are developing

– Duration of fundraising is also increasing for expansion capital funds…

– Leverage is no longer the value creation focus!

– Expansion capital funds managers do not invest much in high tech companies even when they are profitable

Table of contents

Synthesis

GENERAL

- Public funding must be pari passu alongside private investors (e.g. subordination must be excluded)
- Strong fund selection and market practices are a required
- A dedicated highly skilled professional managers team is required

VENTURE CAPITAL FUNDS

- Investing in the VC asset class requires a long term perspective
- VC is an asset class requiring very specific characteristics on the GP side as well as on the LP side
- Focus on leading VC fund managers as well as first time funds / teams which have a genuine strategy focused on market inefficiency

EXPANSION CAPITAL FUNDS

- Expansion capital funds (with minority stake holding) where ignored by most of LPs, but they are currently demonstrating that they are relevant!
- Focus on expansion capital funds (including some OBOs and MBOs) not relying on high leverage as a main source of value creation

cdc entreprises

GROUPE Caisse des Dépôts

OrbiMed Healthcare Fund Management

OrbiMed Israel Partners

Fall 2010

FUND SUMMARY

OrbiMed is forming OrbiMed Israel Partners (the "Fund") to capture a compelling set of investment opportunities at the intersection of three significant factors: the world-class level of life sciences innovation in Israel, the rapidly growing global markets for healthcare products, and an extraordinary set of financial incentives offered by the Government of Israel to attract investors to the Fund.

1. **Israel** is a proven life sciences innovator, with success across both biopharmaceuticals and medical devices. The Israeli life sciences sector leads the world in metrics such as patent approvals per capita, research and development ("R&D") productivity and R&D concentration. Multinational medical device companies identify Israel as the source for a significant portion of the novel products and technologies they evaluate. With over 1,000 life sciences companies today and an average of 70 new entities formed per year, Israel has a broad universe of investable opportunities. The Israeli life sciences industry has provided over $11 billion in exits to investors and has created over $20 billion in outlicensed drug revenues during the past 15 years. Success stories include OrbiMed's investment in Given Imaging, which returned 5x invested capital.

2. **Healthcare** products and services are a compelling source of growth opportunities for investors, supported by the "trifecta" of aging demographics in industrialized countries, the rise in many emerging markets of a middle class which now demands Western quality medicine, and the increasing share of the world economy allocated to healthcare. Consider that emerging market healthcare consumption is growing at four times the rate of growth in the West, the elderly proportion of China's population will double in the next two decades, and U.S. healthcare spending, driven by aging demographics, already exceeds 16% of GDP and is expected to reach 28% of GDP by 2030.

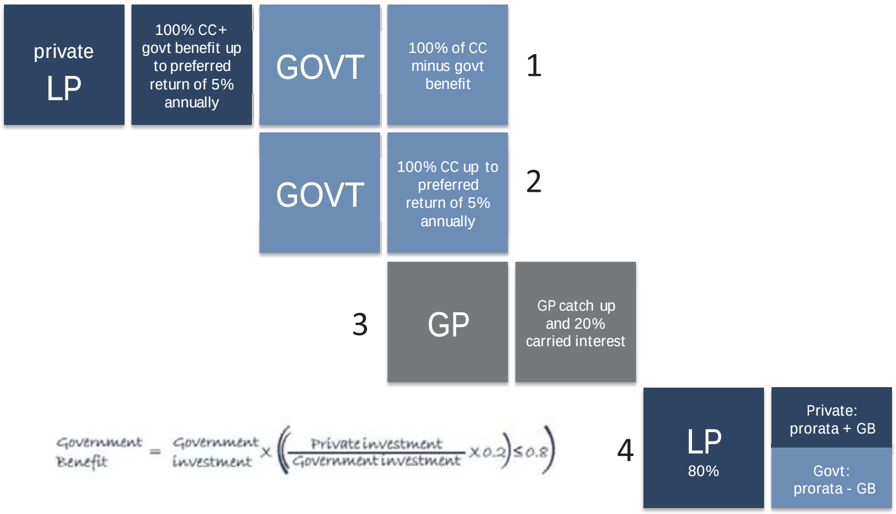
3. **Compelling incentives** have been offered by the Government of Israel, which is the Fund's anchor investor. The Government anchor will forego up to 80% of its pro-rata distributions from the Fund to all other investors in the Fund, which will magnify any gains generated, or potentially offset losses. OrbiMed's team has never encountered a more attractive fund structure for investors to access venture capital opportunities.

The Fund will be the **first Israel-focused venture capital fund established by a leading global healthcare investment firm**. The Fund has a target size of $150 million, to be invested in approximately 12 to 15 portfolio companies across all stages of development and all life sciences segments, including biotechnology, pharmaceuticals and medical devices. The Fund will be managed by a dedicated team in Israel with proven expertise in investment, operational and scientific endeavors, in close collaboration with OrbiMed's global investment team of over 40 professionals.

GOVERNMENT BENEFIT

In addition to the merits of the Fund's opportunity set, investment strategy and team, the Fund offers investors a compelling profit-sharing benefit paid by the Government of Israel. The Government will make an anchor commitment to the Fund of between $24 million and $44 million. At various stages in the Fund's distribution waterfall the Government will rebate a majority of its distributions to the other investors in the Fund. The mechanics of this benefit are shown below.

Government Profit Sharing Benefit



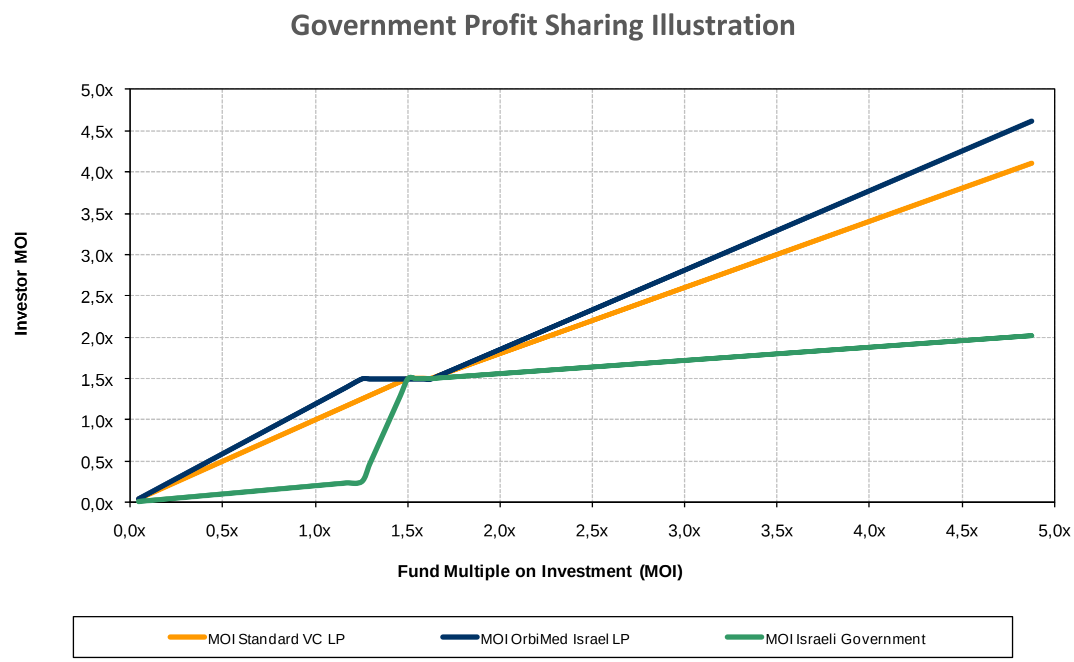
CC = contributed capital. GB = Government Benefit

Once the Fund is established, a profit sharing percentage will be calculated in accordance with the formula listed above. The profit share will be a function of the ratio between the Israeli Government's capital and private investors' capital. For example, if the ratio is 1:3, the profit sharing percentage will be 60%. If the ratio is 1:4, the profit sharing percentage rises to 80%. The following example will assume a 1:4 ratio, yielding an 80% profit share.

As the Fund makes distributions to investors, private investors will receive their pro-rata distributions **plus** 80% of the Government's distributions until private investors have received their contributed capital plus a 5% annual preferred return. During this first stage of the waterfall the profit sharing mechanism provides significant downside protection to investors. In the second stage of the distribution waterfall, the Government receives a "catch up" of 100% of distributions until it has received contributed capital plus a 5% annual preferred return. During the third stage of the waterfall OrbiMed receives a "GP catch up" of 100% of distributions until it has received an amount equal to 20% of the Fund's realized profits. The fourth and final stage in the distribution waterfall is similar to the first: private investors are entitled to their own pro-rata distributions **plus** 80% of any distributions received by the Government. During this final stage, the profit sharing mechanism provides meaningful leverage to private investors, magnifying the returns of the Fund.

This profit sharing benefit is graphically illustrated below. The downside protection aspect of this mechanism allows private investors to earn approximately a 1x return even if the Fund delivers only a 0.8x multiple. The leverage aspect of this profit share allows private investors to receive a 4.5x multiple if the Fund's overall multiple is 4x.

U.S. Contact: Carter Neild, (212) 739-6469, NeildC@OrbiMed.com
Israel Contact: Anat Naschitz, +972 (54) 7711788, NaschitzA@OrbiMed.com



Excludes the impact of management fees, assumes realizations occur in year 6.

SUMMARY OF DRAFT TERMS

Fund Target Size	**$150 million**	**Government Anchor**	**$24 million min, up to $44 million**
Minimum Commitment	$5 million	**GP Investment**	$5 million minimum
Management Fee		2%	
Preferred Return		5% annually	
Incentive Fee		20%, subject to 5% preferred return	
Investment Period		5 Years or >75% invested	
Term		10 Years, with 3 One-Year Extensions	
Diversification		No more than 20% of capital in a single company	
Government Benefit		A portion (expected 60% to 80%) of the Government's distributions will be allocated pro-rata to the Fund's other investors as an added inducement to invest in the Fund	

INVESTMENT STRATEGY

The Fund will pursue a diversified strategy, seeking opportunities in biopharmaceuticals, medical devices and diagnostics, across all stages of development. OrbiMed will generally act as a lead investor, taking a substantial equity position and exercising significant influence over its portfolio companies.

OrbiMed believes Israel's prolific science and relative capital efficiency will produce many attractive earlier-stage investment opportunities, in areas such as biosimilars, molecular diagnostics, and biopharmaceutical discovery companies. For many of these companies, the "end game" will involve licensing or acquisition by a U.S. or European Big Pharma company. OrbiMed believes its unrivaled industry footprint and global platform is capable of nurturing these companies to a significant milestone that will ultimately garner interest from potential suitors.

U.S. Contact: Carter Neild, (212) 739-6469, NeildC@OrbiMed.com
Israel Contact: Anat Naschitz, +972 (54) 7711788, NaschitzA@OrbiMed.com

OrbiMed will also actively consider later-stage opportunities, which generally benefit from a substantial body of clinical data which can de-risk the investment and shorten the time to realization. Later-stage opportunities may include spinouts and PIPEs. OrbiMed has a long history of backing spinout opportunities from entities such as Amgen, Shire, Human Genome Sciences, SkyePharma, and GenProbe. As a substantial investor in publicly-traded healthcare companies, OrbiMed is in a unique position to source and transact in spinout opportunities in advance of the broader venture capital community. Similarly, OrbiMed's substantial footprint in the public markets catalyzes PIPE opportunities, as these companies seek out "validating" investors well known in the public equity markets.

Finally, OrbiMed will also consider creative transactions such as "roll-up" consolidations of single product entities into substantial platform companies with critical mass, adequate funding, and world-class management teams. OrbiMed will also evaluate "take private" transactions with companies traded on the Tel Aviv Stock Exchange ("TASE"), many of which are vulnerable given relative market infancy: 90% of TASE life sciences stocks had IPOs after 2005, and in most cases are still in clinical stages of development.

The Fund will utilize a diverse range of exit strategies for its portfolio companies. Public offerings will be pursued, where appropriate, on either Israeli or U.S. stock exchanges. Israel is second only to China in the number of companies ex North America listed on Nasdaq. OrbiMed's extensive relationships with the global investment banking community will be valuable to companies seeking an exit by this route. Merger and acquisition activity will also be an important avenue for exits. The Fund will proactively utilize OrbiMed's extensive contacts with global Big Pharma and Big Biotech companies to facilitate M&A and licensing opportunities.

INVESTMENT TEAM AND INVESTMENT COMMITTEE

The Fund will be managed by a dedicated team of investment professionals and supported by OrbiMed's broader organization. OrbiMed has established a local team in Israel with diverse skills and experience, as well as a proven track record. OrbiMed's Israel team members will leverage the resources of the firm's public and private equity teams worldwide. The public equity team provides introductions to Big Pharma companies, analytical support, proprietary deal flow and trading capabilities to facilitate realizations. The private equity team provides relationships with existing portfolio companies, due diligence resources, scientific advisors, and other venture capital firms for syndicate-building. As the largest asset management firm focused solely on life sciences, OrbiMed's global resources and industry footprint provide a unique competitive advantage to the Fund's Israel-based team.

ORBIMED OVERVIEW AND TRACK RECORD

OrbiMed is the world's largest healthcare-dedicated investment firm, with approximately $5 billion in assets under management. Since the inception of its venture capital activities in 1993, OrbiMed has successfully invested in over 100 companies across a wide range of therapeutic categories and stages of development. OrbiMed's investment team includes over 40 experienced professionals with backgrounds in science, medicine, industry, finance and law. The firm's diverse team of professionals has a unique understanding of industry dynamics through active participation in both public and private companies. OrbiMed's venture capital investments have resulted in over 70 **complete or partial realizations** with a **26.3% internal rate of return** (IRR) on those investments.

This document does not constitute an offer of securities. Such an offer will only be made by means of a Confidential Memorandum to be furnished to investors at a later date. The manager may make changes to this document without notification. Returns reflect the performance of Pre-Fund I, Fund I, Fund II and Fund III investments. However, no assurances can be made that the Fund will achieve returns comparable to these previous funds. The fee arrangements proposed to be charged for the Fund are different from the fee arrangements that applied to OrbiMed's previous funds. Return multiples and IRRs are computed for realized investments or overall, as the case may be, based on Equity Invested. For a breakdown of investments into realized value and remaining value, please see the Confidential Memorandum. Unless otherwise specified, stated IRRs are annual figures gross of any management fees, carried interest, or other fees and expenses.

U.S. Contact: Carter Neild, (212) 739-6469, NeildC@OrbiMed.com
Israel Contact: Anat Naschitz, +972 (54) 7711788, NaschitzA@OrbiMed.com

Ontario's Venture Capital Initiatives

October 13, 2010

Ontario

MINISTRY OF RESEARCH AND INNOVATION

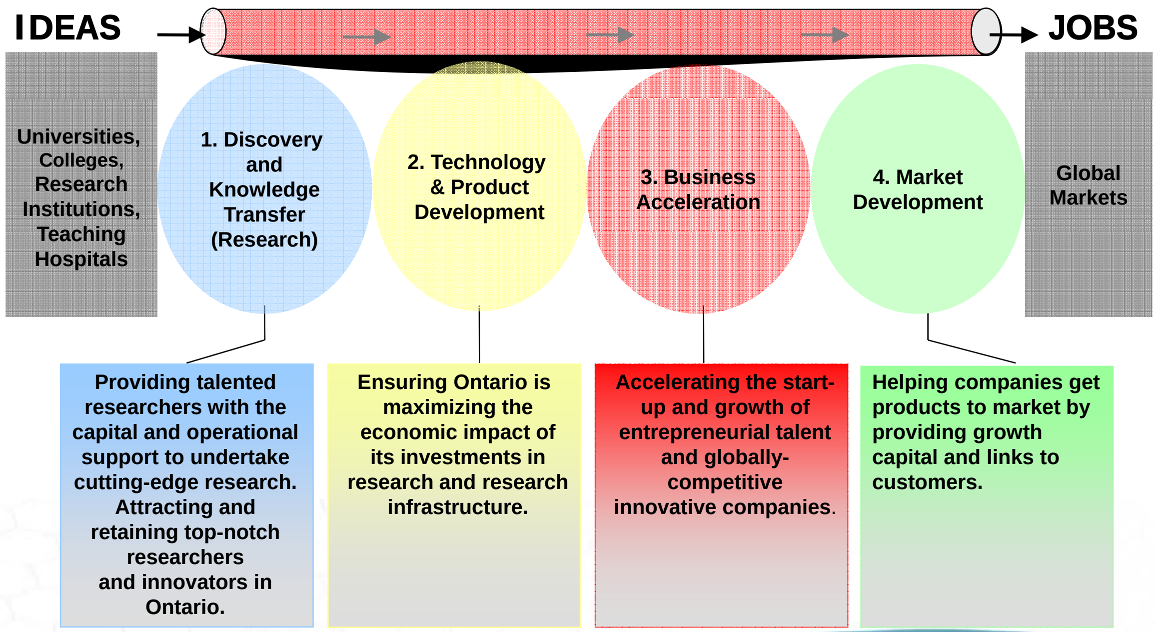
Ontario's Innovation Agenda

- The Ministry of Research and Innovation (MRI) was created to focus on the government's commitment to innovation as the driver of growth across all sectors of the economy
- MRI leads the development of the Ontario Innovation Agenda (OIA) to guide the province's future economic growth
- The OIA is a cornerstone of the government's Open Ontario Plan to create more and better jobs for Ontarians
- The OIA calls for better use of our existing strengths, identifies key opportunities for Ontario and outlines the kind of environment Ontario must create to drive innovation

Ontario's Innovation Agenda Guiding Principles

- Extract value from excellence
- Focus investment in global opportunities
- Leverage skills and knowledge
- **Create a business-friendly climate** – this includes helping innovative companies **gain access to capital** at every stage of their growth

MRI Innovation Pipeline



MINISTRY OF RESEARCH AND INNOVATION

Ontario

Ontario's Capital Strategy

Goals: full-cycle company financing and a long term, self-sustaining market

- **Ontario's capital strategy is three-pronged:**
  - Seed-stage capital for companies seeking first time financing
    → Investment Accelerator Fund
  - Creating a long-term globally-competitive venture capital industry
    → Ontario Venture Capital Fund
  - Rapid deployment of capital immediately
    → Ontario Emerging Technologies Fund

MINISTRY OF RESEARCH AND INNOVATION

Ontario

Investment Accelerator Fund (IAF)

In July 2006, the $29M Investment Accelerator Fund was launched as part of Ontario's Market Readiness Strategy to help start-ups become more investor-ready

- Objectives: to help Ontario-based companies with technology development, market potential analysis, prototype development, early customer trials, promotion and patenting costs
- Investments between $250,000 and $500,000
- $9M available annually beginning in 2010
- Provides $7M in increased funding (side-car) for early-stage Biotech companies under the Life Science Commercialization Strategy
- Supports assistance to attract later-stage venture capital
- Also provides companies with business mentorship until a skilled management team is in place
- Delivered by MaRS, an Ontario innovation hub supported by MRI.
- MRI investments to date: $15.4M

Ontario Venture Capital Fund (OVCF)

On June 11, 2008, the Government of Ontario committed $90M to leverage the $205M Ontario Venture Capital Fund

- Objectives: to strengthen the ability of Ontario's venture capital sector to support innovative, high-growth companies in the province
- A unique limited partnership between the Ontario Government, RBC Bank, OMERS Capital Partners, TD Bank, Manulife Financial, Business Development Bank of Canada (BDC), and Fonds de solidarité in Quebec
- A fund of funds with the primary objective of generating attractive returns for its investors
- Has attracted an additional $15M from BDC since its launch
- 3-5 years to make investments; with investment returns back to investors over an additional 8-year period
- Managed by Northleaf Capital
- Investment committed: $69.3M

OVCF
ONTARIO VENTURE CAPITAL FUND

Lead Investors
BDC
Ontario
OMERS Worldwide
RBC
Manulife Financial
TD Bank Financial Group

Fund Manager
Northleaf Capital Partners

Ontario Emerging Technologies Fund (OETF)

On March 18, 2009, the Government of Ontario announced a $250M co-investment fund for the province's emerging technology companies

- Objectives: to rapidly deploy investment capital into innovative, high-growth Ontario-based companies, including green technology companies, to ensure their future success in Ontario.
- Co-invests with qualified venture capital funds and private sector investors into innovative, high growth Ontario companies
- Targets market opportunities in the clean technology, life sciences and advanced health technologies, and digital media and information and communications technology sectors
- Be self-sustaining through a return on investment
- Managed by the Ontario Capital Growth Corporation (OCGC), an agency of MRI
- MRI investments to date: $22.5M

For more information please contact:

Simone Boxen, Manager (A), Access to Capital Secretariat, Ministry of Research and Innovation

Tel: 416-212-5448

Email: Simone.boxen@ontario.ca

For more information on the Investor Accelerator Fund (IAF) please contact:

Tel: 1 (877) 862-4411 or 647-258-4290

iaf@marsdd.com

Panel 3

Best developments in new markets

Moderator: **Ms. Susana Garcia Robles**
Senior Investment Officer
Multilateral Investment Fund

Panellists:

Mr. Paul Ahlstrom
Managing Partner and Founder
Alta Ventures

Mr. Rogelio de los Santos
Managing Partner and Founder
Alta Ventures

Mr. Omar Lodhi
Executive Director
Abraaj Capital

Mr. Ken Xu
Partner
Gobi Partners

Table of content

Panel 3

8.1 Introduction

The objective of this panel is to bring a different perspective to our debate on the renewal of the VC model and its implications for public policies, and the perspective of new markets that have emerged more recently. These are markets where the growth potential is far higher than in the West, where huge pools of domestic capital have emerged (China, Middle East), which are eager to move up the value chain of innovation and where governments and multilateral funds are willing to support entrepreneurship and the financing of innovation.

Nevertheless, building a strong venture capital industry within an ecosystem which is still incomplete is a huge challenge. Should these countries try to replicate what has been successful in Silicon Valley or do things differently? Money is not enough; talent and networks are key: to what extent should they rely on international funds or international talent and try to attract them? Individual innovation clusters are still small and have not the critical mass to feed strong specialized deal flows: to what extent can this be compensated for by a broader geographical coverage with multiple offices? Local LPs may be reluctant to invest in venture capital: is it possible to replace them by foreign sources with the support of government money? Is there a strong local exit market or does NASDAQ remain the objective? What can be the role of governments to help address all of these issues?

Most places outside Silicon Valley and the US East Coast face these challenges. In fast growing emerging markets they are even more challenging. On the other hand the dynamism of these markets in the context of globalization may lead to innovative solutions. What can we learn from them?

Ken Xu is a General Partner at Gobi Partners, an early stage VC fund based in Shanghai with offices in Beijing, Hong Kong and Tianjin. His perspective on China shows how fast a local VC industry is emerging in China, backed by large pools of domestic capital and highlights some of the challenges it is presently facing.

Paul Ahltrom, was a very active participant of the buoyant Utah VC ecosystem. He joined forces with Rogelio de los Santos to found Alta Ventures in Mexico. The title of his background information, “Growing Success Outside Silicon Valley” is a good summary of their perspective.

Omar Lodhi is Executive Director at Abraaj Capital, headquartered in Dubai. Abraaj Capital has launched Riyada Enterprise Development, a two tier platform established to in SMEs of the MENA (Middle East and North Africa) region with supports of governments both at the regional and country specific levels. His background information highlights lessons learned in responding to the specific challenges facing the MENA entrepreneurship ecosystem.

The panel will be moderated by Susana Garcia Robles, Lead Specialist in charge of the Early Stage Financing program at the Multilateral Investment Fund which for more than 12 years has invested in emerging seed and venture capital funds in Latin America. Her background information provides an interesting synthesis of lessons learned through this experience.

Panel 3

Moderator

Ms. Susana Garcia Robles
Senior Investment Officer
Multilateral Investment Fund

SUSANA GARCÍA-ROBLES - Senior Investment Officer, Multilateral Investment Fund (MIF) of the Inter-American Development Bank (IDB) Since 1999, Ms. Garcia-Robles has created and guided the venture capital investments of the Multilateral Investment Fund (MIF) in Argentina, Brazil, Central America, Chile, Colombia, Mexico, Peru and Uruguay. She also leads MIF's microfinance activities for Argentina and Uruguay. Ms. García-Robles serves on many boards of directors and investment committees of venture capital funds, and is frequently invited to speak at the world's leading conferences concerning venture capital and microfinance issues in Latin America. She is an Advisor to several Latin American governments on VC policy issues and on how to develop a conducive ecosystem for VC investment. Beyond technical matters, she also speaks regularly on a range of topics related to public policy and private investment in Latin America, and addresses the issues of management, accountability, and business climate, working with local partners to improve them. She has been a member of the US-Brazil Venture Capital Task Force hosted by the Commerce Department and the Kauffman Foundation since 2006.

Ms. Garcia-Robles has also worked for and served on the boards of several civil society organizations, including the Executive Council of Diplomacy in Washington, a private, non-partisan organization established by the private sector to help the Secretary of State and the US government improve political, economic, business and cultural relations with other countries. From 1994 to 1999, she worked with local and international NGOs and several Latin American countries on economic development issues at the U.N. She participated as a country delegate in all the main negotiations of the major U.N. conferences during that period: Cairo, Copenhagen, Beijing, Istanbul, and The Hague.

Ms. Garcia-Robles has a Master's Degree in International Economic Policy from Columbia University in New York, and a Master's in Philosophy and Education from the Catholic University of Argentina. A native of Argentina, fluent in Spanish, English, and Portuguese, she is a US citizen.

Panellists

Mr. Paul Ahlstrom
Managing Partner and Founder
Alta Ventures

Paul Ahlstrom, Managing Director and co-founder of Alta Ventures Mexico a venture capital fund focused in Mexico. In 2000, Mr. Ahlstrom co-founded vSpring Capital, Utah's leading venture capital fund. (www.vspring.com) In 2007, Mr. Ahlstrom co-founded Alta Growth Capital, based in Mexico City (www.agcmexico.com) and Kickstart Seed Fund (www.kickstartseedfund.com) based in Salt Lake City.

Over his career, Mr. Ahlstrom has directly participated in more than 90 venture capital investments and represented vSpring Capital on the boards of Ancestry.com www.ancestry.com which was sold in 2007 to a private equity firm and went public in 2009 (NASDAQ:ACOM), GlobalSim (www.globalsim.com), which was sold to Kongsberg Maritime (KOG - Oslo Stock Exchange), Senforce, www.novell.com which was sold to Novell (NASDAQ: NOVL), and Altiris (NASDAQ:ATRS), which went public and was then sold to Symantec. (NASDAQ: SYMC). Mr. Ahlstrom has also served on the boards of many successful venture back startups including Rhomobile www.rhomobile.com , Public Engines www.crimereports.com, Aeroprise www.aeroprise.com, 7degrees www.mypeoplemaps.com, The American Academy www.TheAmericanAcademy.com and FamilyLink www.familylink.com

In addition to fund creation and investment experience, Mr. Ahlstrom has direct entrepreneurial and operating experience, having personally founded multiple startups. Prior to founding vSpring Capital in 2000, Mr. Ahlstrom was founder and CEO of Knowlix Inc., a Knowledge Management IT company which raised venture capital financing from Dominion Ventures and UV Partners in 1998. Ahlstrom led the sale of Knowlix to Peregrine Systems in 1999 which was in turn sold to Hewlett Packard www.hp.com (NYSE: HPQ).Mr. Ahlstrom is a Founding Member of the BYU Center for Entrepreneurship and Technology and currently serves on the executive committee and board for the University of Utah's Technology Commercialization Office which is ranked number one in university generated spinouts in the United States. Mr. Ahlstrom previously served as trustee for the Utah Technology Council and other community boards and has also served multiple years as a member of Motorola Corporation's Visionary Research Board, (NYSE: MOT).

Mr. Ahlstrom earned his B.A. in Communications from Brigham Young University. Mr. Ahlstrom has also received an honorary doctorate from the Netanya Academic College in Netanya Israel.

Mr. Rogelio de los Santos
Managing Partner and Founder
Alta Ventures

Rogelio de los Santos, after founding and launching 7 companies as a serial entrepreneur, he now supports the venture capital industry in Mexico at the same time that he serves as Managing Director of Alta Ventures Mexico and the Kickstart Seed program.

Mr. de los Santos experience in diverse areas including mining, logistics, education and entertainment. Mr. de los Santos currently participates as a mentor in Endeavor Mexico and serves on the board of Enlace E E, Mexico's top two entrepreneurial mentor organizations.

During college Mr. de los Santos co-founded and was CEO of the national collegiate entrepreneurial organization called Generacion Empresarial Mexicana. Mr. de los Santos received a BS in Mechanical Engineering from Instituto Tecnologico y de Estudios Superiores de Monterrey (ITESM) in 1992 and a Master in Business Leadership from Duxx Graduate School of Business Leadership in 1998.

Panellists

Mr. Omar Lodhi
Executive Director
Abraaj Capital

Omar Lodhi joined Abraaj in 2005, and has 16 years of private equity and investment banking experience in the Middle East, Asia and Europe. At Abraaj, Mr. Lodhi has been involved in many aspects of the business. Until early 2009, he headed on one of three investment-management teams responsible for deal sourcing, execution and post-acquisition management of partner companies. His main area of focus was Turkey and the Gulf, targeting a range of sectors including oil and gas, education, food and agriculture, and industrials. During this time, he was responsible for undertaking and managing several investments for Abraaj Funds, including Gulf Marine and Offshore Maintenance Service Ltd (GMMOS), Global Education Management Systems (GEMS) and Tadawi, the biggest retail pharmaceutical business in Saudi Arabia.

Mr. Lodhi has also played a leading role in the development and launch of new funds including Infrastructure and Growth Capital Fund, and Abraaj Buyout Fund IV. He currently manages Abraaj's Investor Coverage business (AIC), spanning existing and potential limited partners regionally and internationally and also serves on the firm's six member Executive Management Committee. Before joining Abraaj, Mr. Lodhi was Head of Islamic Finance for Citigroup in the Asia-Pacific region, focusing on primary capital-market fund raising, and the structuring and distribution of alternative investments. Prior to that he spent several years with UBS in London and Hong Kong, focusing on advisory and principal opportunities in various infrastructure sectors in Europe and Asia, including telecoms, power, and downstream oil and gas. Mr. Lodhi is a graduate of the London School of Economics with an Honours degree in International Trade and Development, and holds a Master of Business Administration from the Harvard Business School.

Mr. Ken Xu
Partner
Gobi Partners

Born and raised in Shanghai, Ken joined Gobi Partners in 2003 and focuses on wireless and broadband applications, e-learning, and the digital TV sector within the digital media value chain. Ken helped Gobi invest into a leading Beijing-based LBS player in 2004. In November 2003, Ken was invited to be a speaker at the “IT Spring” conference held by IBM in Guangzhou.

Ken has experience in multiple industries including IT, financial services, real estate, and construction. Previously he worked as an Investment Representative for Shanghai Golden Point Investment Corporation where he was responsible for personal finance management and investment consulting services. He also completed internships at China Quest, a leading geographical information systems (GIS) company, and Shanghai Second Construction Corporation.

Ken was awarded scholarships for both his undergraduate and graduate education. He holds a B.S. in Management Engineering from Tongji University in Shanghai and an M.S. in Economics and Finance and a Certification in Economics from the University of York in the United Kingdom. Ken played active roles in various organizations including the student union, college basketball team, and the Real Estate and Investment Association at Tongji and the Chinese Scholar and Student Association (CSSA) at York.

VENTURE COMMERCIALIZATION

Driving Sustainable Growth Through Innovation

Growing Success Outside Silicon Valley

ROGELIO DE LOS SANTOS, DIRECTOR, ALTA INNOVATION INSTITUTE
PAUL AHLSTROM, DIRECTOR, ALTA INNOVATION INSTITUTE

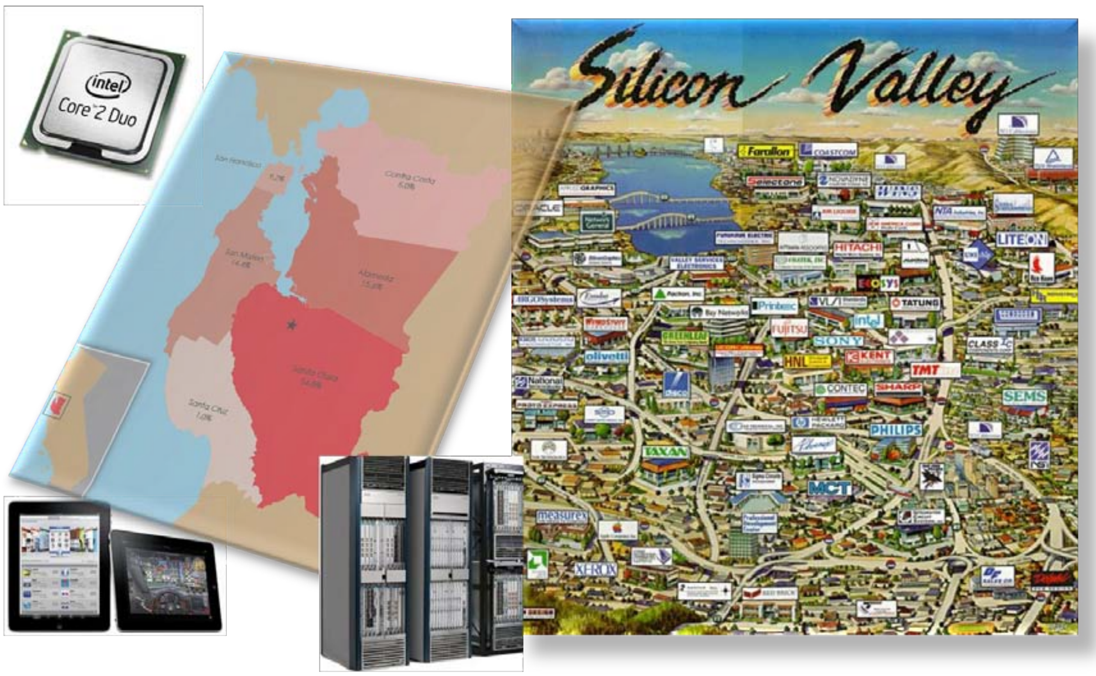
ALTA INNOVATION INSTITUTE™

12/10/2010

Tech Com 1.0: Silicon Valley

ALTA INNOVATION INSTITUTE™

2



Everyone Wants to be Silicon Valley

ALTA INNOVATION INSTITUTE™

3

Silicon Alley – New York, England

Silicon Sloboda - Moscow

Silicon Gulf – Davao Philippines

Silicon Slopes, Utah

Silicon Oasis- Dubai

Silicon Wadi – Israel

Silicon Beach – Australia, Brighton England

Silicon Glen – Scottland

Silicon Gorge – Bristol, England

Silicon Forrest – Portland Oregon

Silicon Prairie – Illinois, Dallas

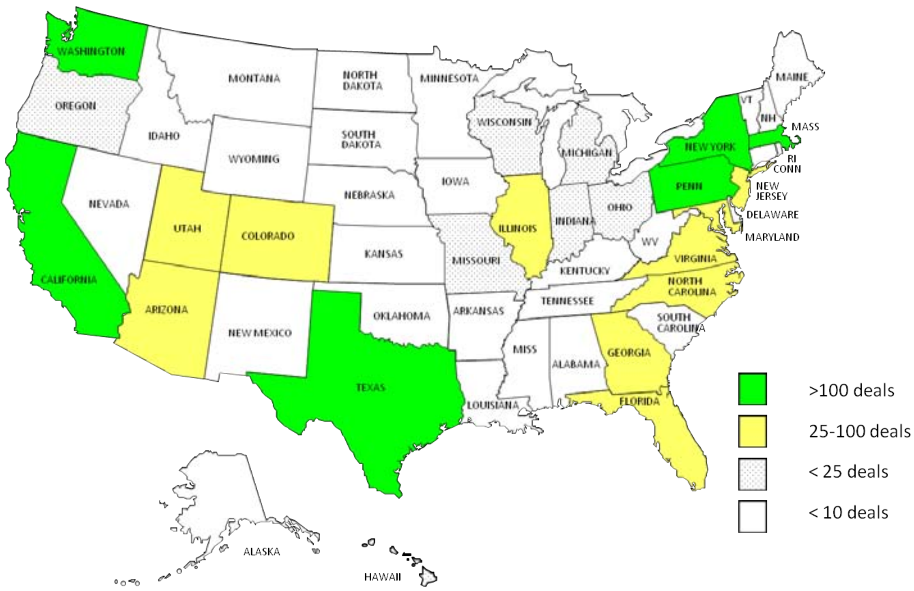
Silicon Sandbar – Cape Cod

Silicon etc.…

Is Silicon Valley's Success Repeatable?

US Venture Capital Concentrated

4



What Makes Silicon Valley work?

5

Critical Mass of Capital, Human Capital and Innovation Capacity tied together with Trusted Informal Networks in an Entrepreneur Friendly Environment

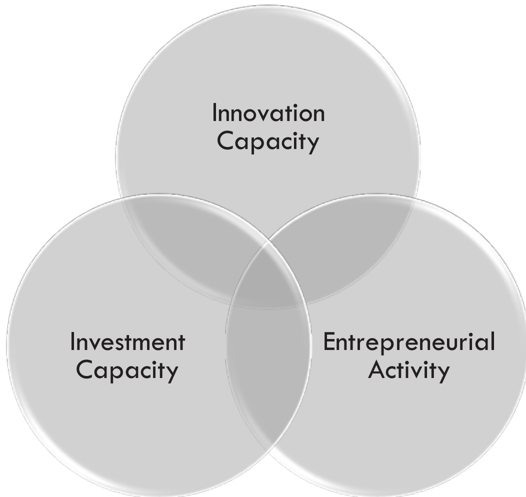
- **Innovation Capacity.** Significant Intellectual Capital (Stanford, Xerox PARC, IBM Research Labs)
- **Capital.** Robust Investment Capacity (Full Funding Continuum)
- **Human Capital.** Critical Mass (Significant Entrepreneurial Activity & Culture, Deep Bench Strength, Social Dynamics: OK to Fail, OK to be Rich)
- **Trusted informal Networks** (Trusted Service Providers, Shared Community Vision, Predictable & Supportive Government)

Tech Com 2.0: Utah Case Study

ALTA INNOVATION INSTITUTE™

6

Trusted Informal Networks Drive Positive Outcomes

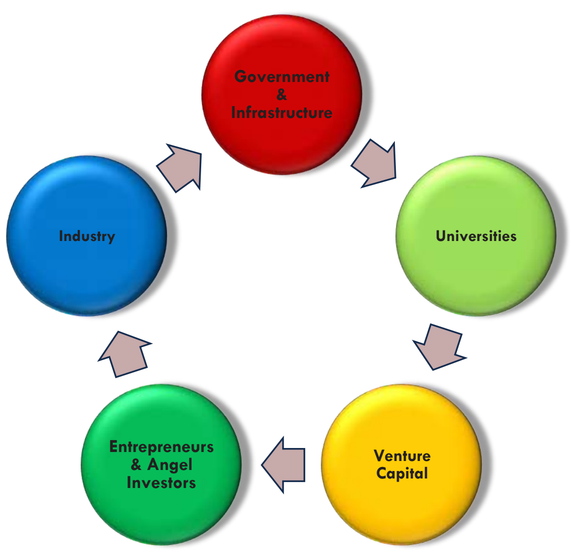


Tech Com 2.0: Utah Case Study

ALTA INNOVATION INSTITUTE™

7

Bringing the Ecosystem Together



Tech Com 2.0: Utah Case Study

ALTA INNOVATION INSTITUTE™

8

Key Drivers of Positive Outcomes for Utah's Entrepreneurial Ecosystem

- Innovation Capacity
- Local Investment Capacity & Established Funding Continuum
- Entrepreneurship Activity and Human Capital Development
- Trust
  - Trusted Informal Networks
  - Trusted Service Providers
  - Shared Vision: Aligned and Predictable Government and Regulatory Environment

Tech Com 2.0: Utah Case Study

ALTA INNOVATION INSTITUTE™

9

Building Innovation Capacity

- Entrepreneur Centric Research Universities
  - University of Utah, Brigham Young University, Utah State
- University of Utah Tech Commercialization - www.tco.utah.edu
  - #1 Spinouts, Tech Titans, Venture Bench, Grants, Incubator Facilities
- USTAR Initiative- www.innovationutah.com
  - $400+ million investment to attract world class Univ. researchers
- Lassonde Center- www.lassonde.utah.edu
- Link to Innovation Centers – RedSpan www.redspan.net , Regional Satellite offices located by national labs
- Nail it Then Scale It - BYU Innovation Curriculum
  - University classes & product innovation training and book

Tech Com 2.0: Utah Case Study

10

University Technology Commercialization Policy

- Conflict of Interest
  - Extreme: Avoid at all costs – Harvard
  - Manage conflicts because that's where the value is - Utah
- Inventor Equity Sharing
  - Extreme: No double-dipping in company and license – most Universities
  - Allow them to benefit where they add value - Utah
- State IP Involvement
  - Extreme: All contractual decisions runs through A.G. – OR
  - Bottleneck: 15 system Universities report to central GC - TX
  - Allow University to control internally - Utah

Tech Com 2.0: Utah Case Study

11

Building Investment Capacity

1. University Venture Fund- www.uventurefund.com
   - Student Run, University of Utah Student Fund
2. Cougar Capital - www.byucougarcapital.org
   - Student Run, Brigham Young University Student Fund
3. Utah fund of Funds - www.utahfundoffunds.com
   - $300MM fund of funds invested into 26 Utah focused VC/PE funds
4. Kickstart Seed Fund- www.kickstartseedfund.com
   - $10 million seed fund with investment committee and capital made up of Utah Investment Ecosystem
5. More than a dozen new venture and seed funds
   - vSpring Capital, Mercato, University Venture Fund, UpStart …

Tech Com 2.0: Utah Case Study

ALTA INNOVATION INSTITUTE™

12

Building Investment Capacity & Networks

6. Rocky Mountain Venture Capital Association
   - Establishing critical mass of capital in the region
7. Venture Capital in the Rockies – Annual VC Deal Flow Conf.
   - Attracts investors from the surrounding states
8. Wayne Brown Institute – Annual VC Deal Flow Conference
   - Attracts VCs from across the nation
9. Utah Governor's VC Summit
   - Self assesment
10. BYU Investment Professionals Conference
    - Global investors with ties to Brigham Young University

Tech Com 2.0: Utah Case Study

ALTA INNOVATION INSTITUTE™

13

Public Policy Approach

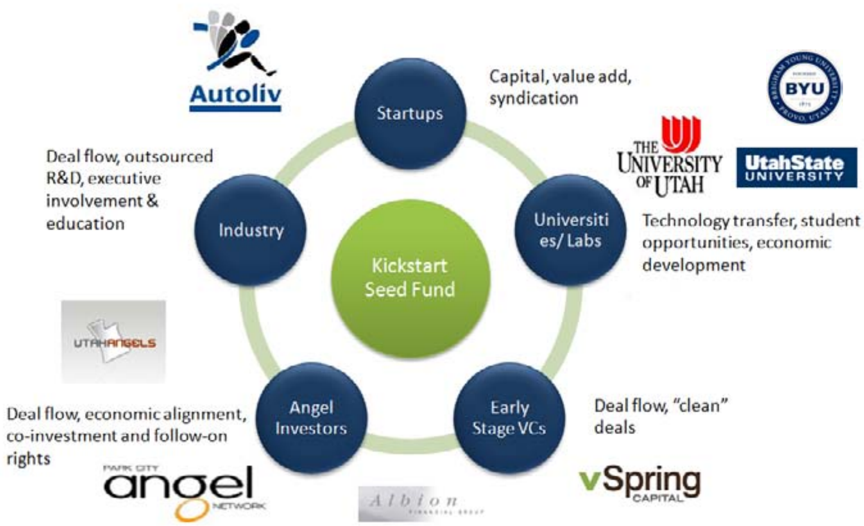
- Minimalist Approach
- Shared Vision
- Supportive, Predictable, aligned environment
  - Senators, Congressmen, Governor, State legislators …
- Measuring the right things
- Focused Funding
  - VC Fund of Fund formation
  - University Research
  - Technology Commercialization

Tech Com 2.0: Kickstart UT Case Study

ALTA INNOVATION INSTITUTE™

14

Building & Aligning Local Investment Capacity



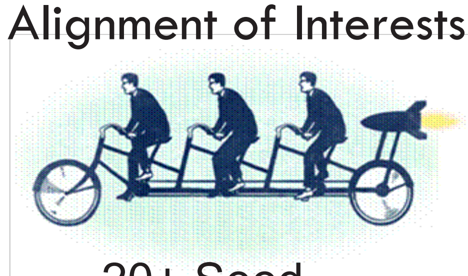
Tech Com 2.0: Kickstart UT Case Study

ALTA INNOVATION INSTITUTE™

15

Kickstart Utah – Alignment of Interests

Entrepreneurial relationships



20+ Seed Companies

5-10 VC-backed Startups

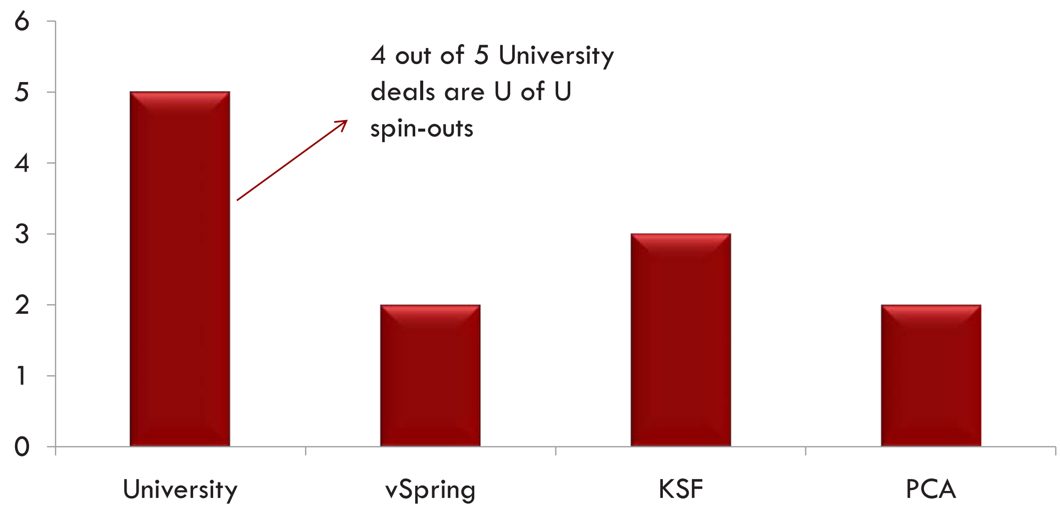
KICKSTART SEED FUND

Fund I ~ $10MM of seed capital

Tech Com 2.0: Utah Case Study

16

KSF Deal Flow Comes From Community



Tech Com 2.0: Utah Case Study

17

15 years later

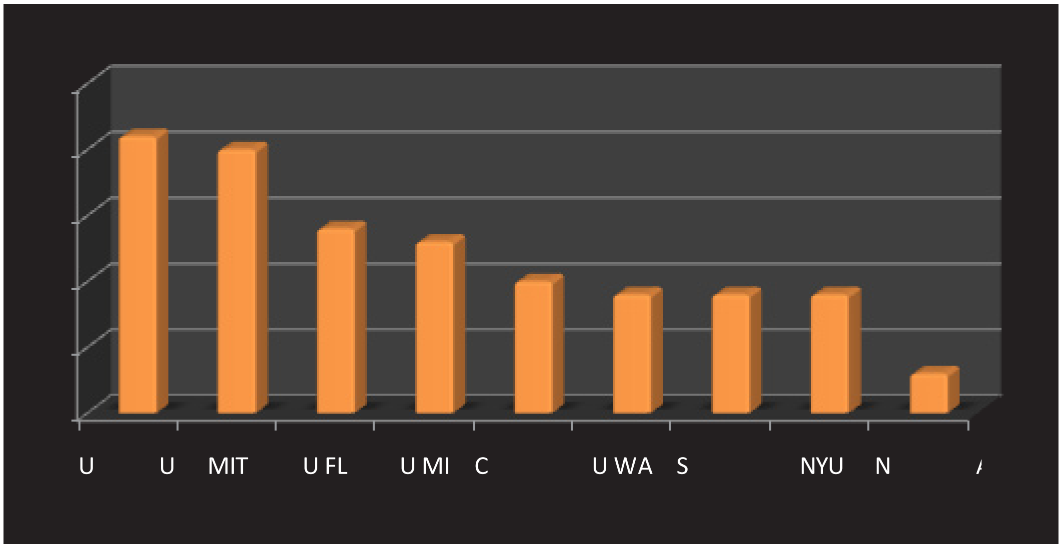
Utah's results

Tech Com 2.0: Utah Case Study

ALTA INNOVATION INSTITUTE™

18

2008 Results University of Utah from #94 to #1



Source: AUTM 2008 – Spinoffs based on University Technology

2008 is most recent results. Audited AUTM results are 18 months behind.

Tech Com 2.0: Utah Case Study

ALTA INNOVATION INSTITUTE™

19

Utah has 30+ Investor groups after 10 Yrs Managing $4 Billion+

Angel & Family Groups

- Utah Angels
- Park City Angels
- Salt Lake Life Science Angels (SLLSA)
- Olympus Angels
- Cache Valley Angels
- Dixie angels
- Grow Utah Ventures
- Top of Utah Angels
- Ash Capital
- Canopy Group
- Cherokee & Walker
- Monarch

Seed & Venture Funds

- Cougar Capital
- ThinkAtomic, Inc.
- University Venture Fund
- JCP Capital
- Upstart Seed Fund
- Epic Ventures
- Intel Capital
- InnoVentures Capital Partners
- Kickstart Seed Fund
- UV Partners
- vSpring Capital
- Prospector Equity

Growth and PE Funds

- Aries Capital
- Mercato Partners
- Cross Creek Capital
- DW Healthcare Partners
- H&G Capital
- Peterson Partners
- Sorensen Capital Partners
- Banyon Ventures
- Dolphin Ventures
- Leucadia

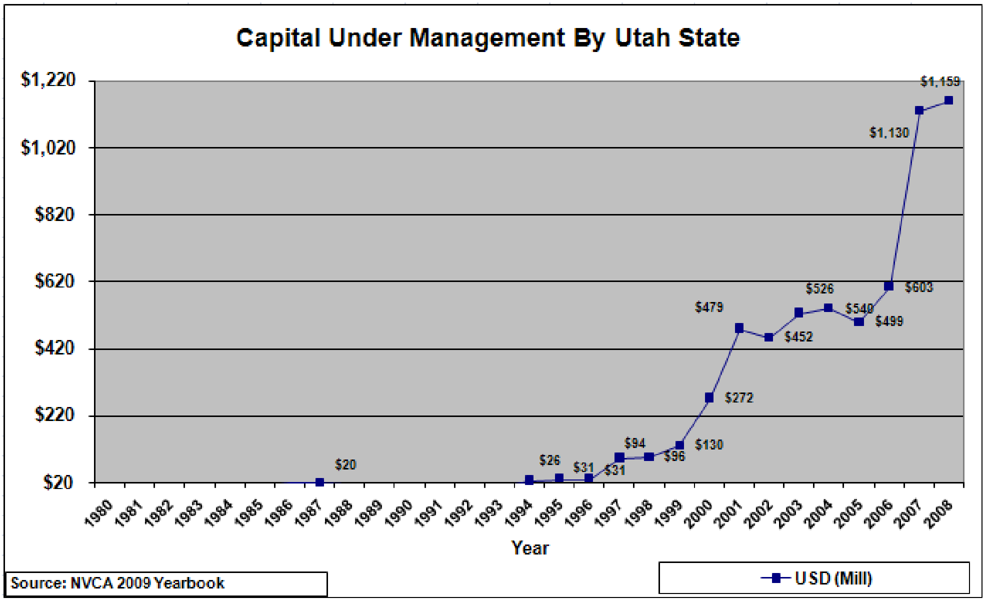
Fund of Funds

- Utah Fund of Funds

Tech Com 2.0: Utah Case Study

ALTA INNOVATION INSTITUTE™

Utah Results

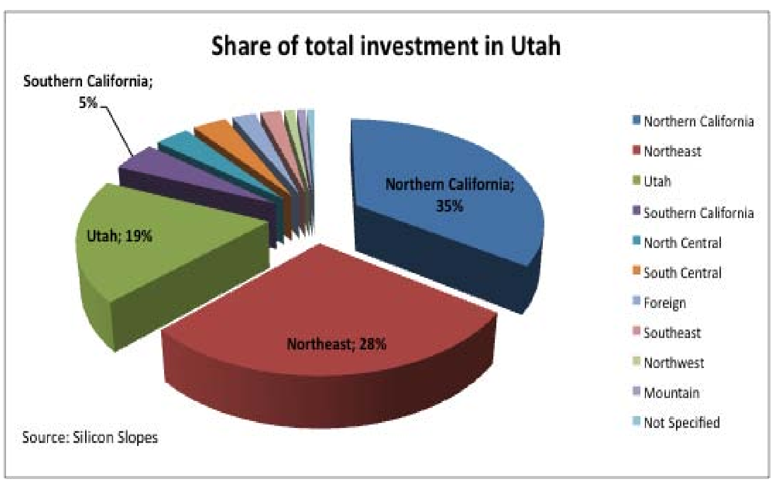


$2.23 B Invested in UT since 2000

ALTA INNOVATION INSTITUTE™

21

- **81%** capital invested came from outside the state.
- In 2009, Utah ranked **16th** in the nation in total VC investment and **7th** in VC investment per capita.



Source: NVCA

Tech Com 2.0: Utah Case Study

ALTA INNOVATION INSTITUTE™

22

Utah Results: Everybody wins!

Tech Com 2.0: Utah Case Study

ALTA INNOVATION INSTITUTE™

23

Areas of Utah Public Policy Impact

- Utah Fund of Funds Results:
  - Increased State Capital Formation
  - Attracted Outside Investment Capital
- Building Innovation Capacity & Intellectual Capital
  - USTAR, University of Utah
- Early Market Catalyst, Predictable & Stable Environment
- State Branding Event: 2002 Winter Olympics!

Tech Com 2.0: Utah Case Study

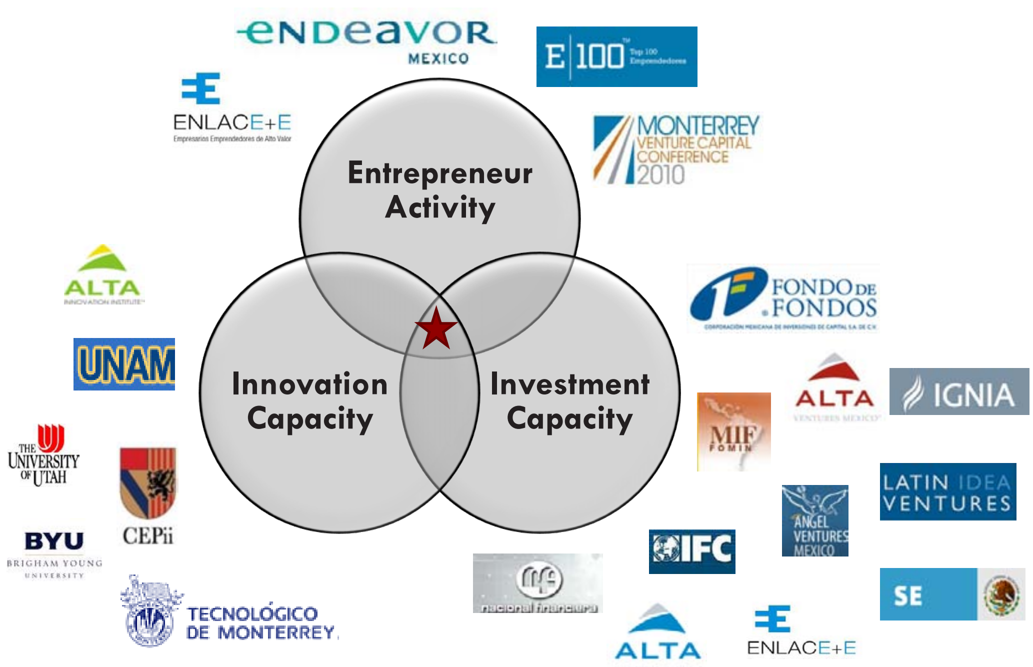
24

Technology Commercialization 2.0

Can it be replicated internationally?

Tech Com 2.0 Going Global: Monterrey Mexico!
“Trusted informal networks drive positive outcomes”

25



Tech Com 2.0 Going Global: Monterrey Mexico!

ALTA INNOVATION INSTITUTE™

26

Monterrey Mexico– Tech Com 2.0 Activities

1. Institutionalization of Mexican Family Offices
2. E|100 www.mvcc.mx/e100
3. 2010 MVCC – Monterrey Venture Capital Conference www.mvcc.mx
4. AMEXCAP – PE/VC Association www.amexcap.com
5. Enlace Mentor Network www.enlacee.org
6. Endeavor Mexico Mentor Network www.endeavor.org.mx
7. MX Kickstart Seed Program
8. Redspan (CONACYT, IMPI and Universities) www.redspan.net
9. Global Entrepreneurship Certificate
   www.altainnovation.com/initiatives.htm
10. New VC Funds – Alta Ventures, Ignia, Gerbera Capital

Tech Com 2.0 Going Global: Monterrey Venture Capital Conference

ALTA INNOVATION INSTITUTE™

27

Tech Com 2.0 Going Global: Monterrey Mexico!

ALTA INNOVATION INSTITUTE™

28

ENLACE+E
Empresarios Emprendedores de Alto Valor

"The Enlace mentors are committed to supporting the rising generation of Mexican entrepreneurs."

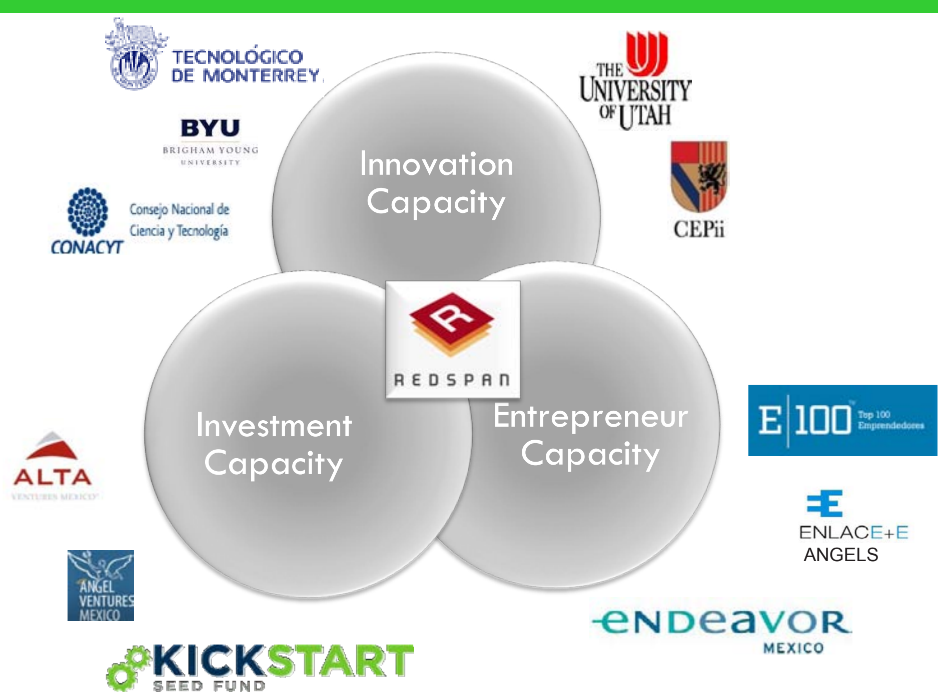
Rogelio de los Santos
Enlace Mentor

- **Mentor network** established to support seed stage companies aligned with Tec de Monterrey
- Enlace is a strategic partnership with the Kickstart Program of Alta Ventures Mexico
  - Mentoring and Board guidance of Portfolio Companies
  - Access to entrepreneur training, strategic relationships and professional contacts
  - Deal flow source

Redspan: Linking Global Innovation and Investment with Entrepreneurs Online

ALTA INNOVATION INSTITUTE™

29



Tech Com 2.0 Going Global: Monterrey Mexico!

ALTA INNOVATION INSTITUTE™

30

Building Local Investment Capacity

1. **Institutionalization of Mexican Family Offices**
2. **Creation of Local Institutional Capital Sources**
   - AFORES - Mexican Public Pension Funds
   - Fondo de Fondos
   - Insurance Companies
   - Small Cap Offerings on Bolsa de Valores (Mexican Stock Market)
3. **Pioneer Venture Capital Funds**
   - Alta Ventures, Latin Idea, Ignia, Gerbera, Angel Ventures, Indigo
4. **Education & Mentorship**
   - EGADE VC Class
   - Monterrey Venture Capital Conference - Tec de Monterrey
   - Kickstart Mexico Seed Program

Tech Com 2.0: Supportive Public Policy Environment for MX PE/VC

ALTA INNOVATION INSTITUTE™

31

Widespread Mexican Public Policy Support and Coordination for Mexico's PE/VC Industry

- Creation of **CKD's**. Public Pension Funds Now Investing.
  - July 2009, MX AFORES Invest–(Treasury & CNBV- Mexico's SEC)
- New Independent VC Fund of Funds (NAFIN & SE)
- New Private Tech Comm. Centers (CONACYT)
  - Alignment with Universities and R&D centers across Mexico
- Science and Technology Commercialization Law
  - (Mexico's Bayh–Dole Act, Updated June 12, 2009)
- SAPI Corporate Structure (Created in 2006 – CNBV)
  - Allowing shares to have separate classes of ownership.
- National Innovation Committee (CONACYT, SE)

Tech Com 2.0: Mexico's PE Public Policy Initiatives

ALTA INNOVATION INSTITUTE™

32

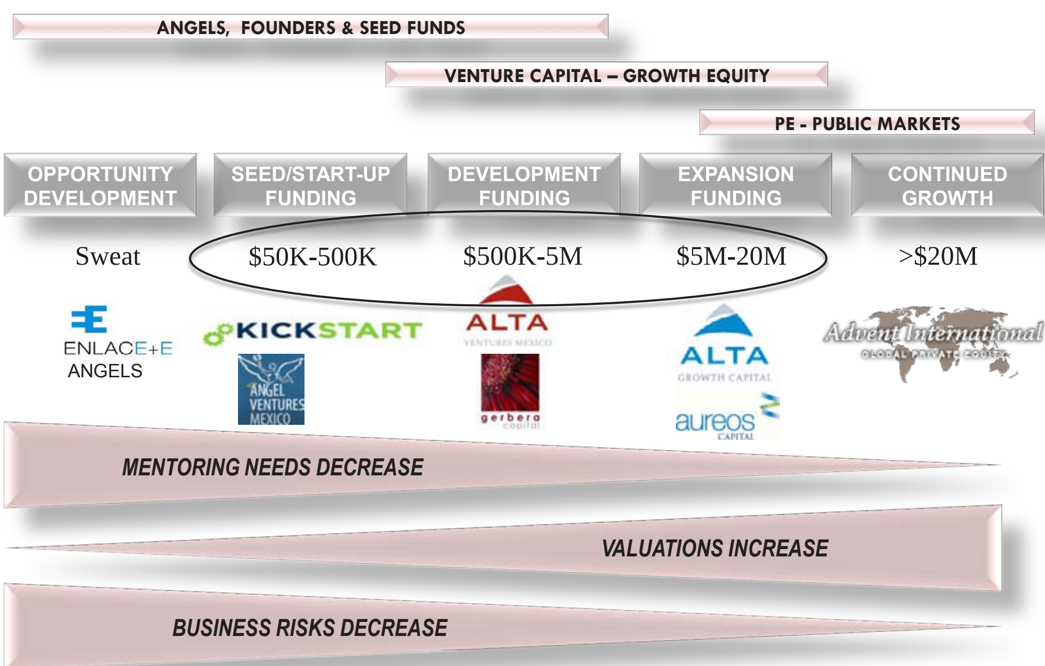
New Programs in Process:

- **PCT Patent Application Grant Fund**
  - (Funded and supported by Mexican Patent office)
- **New Small Cap Stock Exchange –**
  - in review (BMV Mexican Stock Exchange, NAFIN, IADB)
- **Tech Co-investment Fund.** (CONACYT)
  - Supporting Entrepreneurship and Networking
- And many others…

Summary: Mexico's Funding Continuum

ALTA INNOVATION INSTITUTE™

33



Public Policy Forum on Venture Capital and Innovation

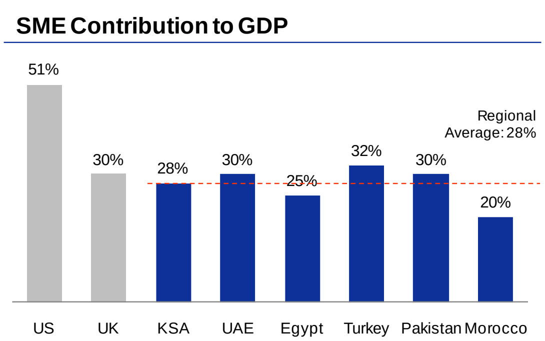
The MENA[1] Perspective

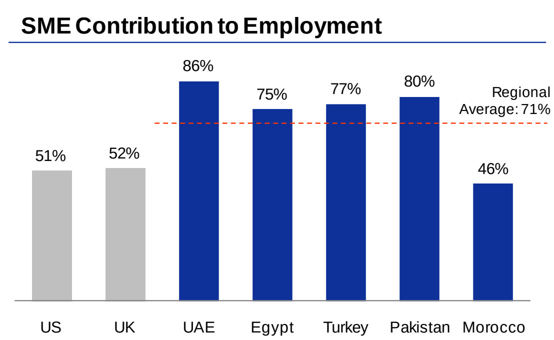
October 25, 2010

1. THE MENA ENTREPRENEURSHIP ECOSYSTEM

Relevance of the SME segment in the MENA region

Across the broader Middle East region SMEs account for c. 71% of jobs and 28% of GDP[2]. Given the significant contribution to employment, in a region not known for high employment levels, the SME segment is rightly seen by governments and observers alike as perhaps the most important in the corporate landscape of the region. SMEs are increasingly also being seen as a motor for future economic growth. Already, SMEs dominate in many fast growing industries in the region such as technology, media and telecommunications. At the same time, SMEs are playing a critical role in transforming traditional industries such as healthcare and education through innovative business models. Generally there is an acceptance that SMEs can contribute disproportionately to future GDP and job growth and according to some reports have the potential to contribute an additional GDP of US$ 100 billion and up to 2 million jobs in the coming years in the GCC[3] alone[4]. There is evidence for this in more developed markets such as the United States and Germany as well as within the region itself. For example, in Egypt the fastest growing segment in the corporate landscape is the medium segment, with the number of these enterprises having increased at a rate of 5.7% from 2006-2008 versus an increase of 0.3% in the total number of enterprises and a decrease of 8.5% in the number of large enterprises[5].





---

[1] MENA (Middle East and North Africa) means the region principally comprising the following countries: Algeria, Bahrain, Egypt, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Palestinian Territories, Qatar, Saudi Arabia, Tunisia, Turkey and the United Arab Emirates

[2] Various government ministries. GDP contribution data based on Saudi Arabia, UAE, Egypt, Turkey, Pakistan and Morocco, which collectively represent 76% of the GDP of the Region. Employment contribution data based on the UAE, Egypt, Turkey, Pakistan and Morocco, which collectively represent 80% of the population of the Region.

[3] GCC means the countries of the Gulf Cooperation Council, consisting of Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates

[4] AT Kearney

[5] CI Capital

Despite the significant contribution to employment, regional SMEs are not delivering a proportionate amount of input to GDP. When comparing SMEs in the region to their global peers, a significant disparity in terms of productivity is readily apparent. For instance, although on average SMEs in the region contribute 3 % more to employment than those in the US (71% versus 51%), the contribution of these same SMEs to GDP is 45% less (28% of GDP versus 51%). In fact, a closer look at certain sectors such as manufacturing reveals compared to SMEs in the region, output per employee for manufacturing-based SMEs is 11x greater in the US and 6x greater in the UK. Evidence indicates that the higher ratio of output employee in these developed markets implies that SMEs in the region continue to suffer from factors such as: (a) lack of investment in productivity-enhancing technology and machinery and a corresponding reliance on low-cost labor (b) lack of access to capital for purposes of expansion, scale, etc and (c) lack of institutional processes including IT systems for back office processes and general support in terms of business sophistication practices

Importance of SME segment

By way of summary of the importance of the segment and the related investment opportunity:

- There exist in the region a vast number of SMEs that collectively account for the largest share of employment and that conse uently represent the core base of economic and social stability within the region.
- The growth potential of these businesses is inherently great because they operate in high-growth emerging markets with supportive macro-economic drivers including demographic change, government reform systemic change and historic undersupply.
- Furthermore, SMEs are currently underserved by the financial sector, including banks, capital markets and private e uity venture capital. They also lack access to sophisticated business practices and know-how. Generally their growth potential is systemically held back and pent-up.
- Finally, SMEs are currently unproductive by comparison with their global counterparts and a further delta of growth can be achieved by means of productivity enhancing technology and know-how.[6]

Lack of Institutional Capital for Entrepreneurs

Access to capital is a great challenge for the vast majority of SMEs in the region. In terms of bank financing, SMEs only account for 8% of total bank loans[7]. Even in markets with more developed financial sectors such as in the UAE the rejection rate for SME loans is over 50%, with a primary reason cited as the low levels of collateral available. Banks, it seems, focus on asset based lending rather than cash flow based lending to the SME segment, whereas many SMEs do not have a significant asset base. For those SMEs that are able to obtain loans, the cost of such financing can be prohibitive, at interest rates of typically between 15-20% p.a.[8]. Furthermore, the nature of the debt available is unlikely to be anything other than short term. In Saudi Arabia, for example, over 0% of loans made to medium-si ed

---

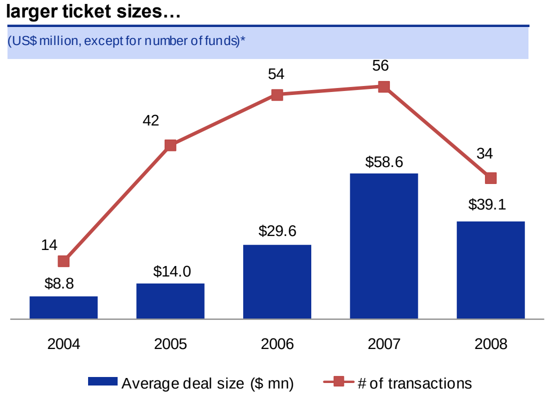
[6] A potential side effect of increased productivity and efficiency is lower employment but this should be offset by the overall economic growth that follows the other factors for unlocking value in the SME segment.
[7] World Bank
[8] Dun Bradstreet

enterprises have tenures of 1 year or less[9]. The lack of available bank financing is even more acute in countries such as Egypt, where only 10% of SMEs receive working capital support and only 13% have access to any formal credit (as compared to a figure of 36% for large enterprises)[10]. Matters have been exacerbated by the recent global downturn, with many banks liquidity constrained and/or more risk averse.

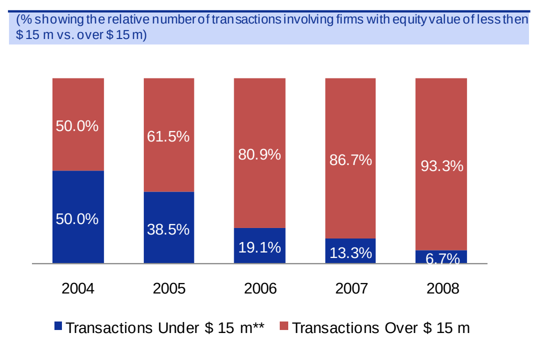
More fundamentally, there is a dearth of strategic equity capital available from institutional investors such as private equity and venture capital firms. Private equity and venture capital firms are vitally important to the entrepreneurial ecosystem in more developed markets. The nature of the equity capital provided through these channels is generally better suited to the SME segment than bank debt. It does not typically carry an on-going cash flow servicing requirement like interest and there is often no amortisation or refinancing risk down the line. This gives the business room to grow and free cash flow can be channelled towards growth. In addition to capital, private equity and venture capital can provide additional institutional support to entrepreneurs including strategic and operating expertise and access to broad business networks.

Unfortunately for SMEs in the region, relatively little private equity or venture capital is available to that segment. For example, the average private equity transaction in the region has increased in size from US$ 9 million in 2004 to US$ 59 million as of 2007[11], indicating a shift towards larger transactions at the expense of the SME segment.

Regional PE funds have been increasingly investing larger ticket sizes…



…As a result the SME sector has been largely ignored



This is not an issue that is unique to the region, of course. Even in the most developed markets the private equity industry has typically allocated significantly greater capital to larger more mature corporates, where the perceived risk of loss is much lower. The situation is perhaps well reflected by the experience of the United States in the 2000s, where the growth of capital available to the private equity industry has far outstripped that available to the venture capital industry. In the region there is practically no dedicated institutional venture capital available for entrepreneurs and relatively little more to SMEs generally.

---

9 Ministry of Economy & Planning, KSA
10 Egypt National Human Development Report (UNDP)
11 Zawya, PE Monitor

The Role of the Government

However, in many industrialized countries where this issue has been acknowledged, governments have been forced to take it upon themselves to provide or encourage the provision of finance and other support to the SME segment. In the United States, for example, agencies such as the Small Business Administration ('SBA'), were created to initiate a range of initiatives such as the Small Business Investment Company program that indirectly support SMEs by channeling government funds through private sector-run investment companies and commercial banks. The existence of these well-established programs is a major factor in the ability of a government to act quickly when needed to support SMEs. For instance, to cushion the impact of the current financial crisis, the Obama administration acted to support small businesses by increasing the cap on the SBA's flagship 7(a) loan program from US$ 2 million to US$ 5 million, providing up to US$ 20 billion in new loans to the SME sector. Additionally, to make SME loans attractive to banks it was proposed that the SBA loan guarantee ratio for new loans be increased from 75% to 90%[12].

Within the MENA region, governments have also taking steps to positively impact the SME segment, but the range of responses to date have had different levels of success. Some provide capital directly to entrepreneurs, others make funds available to third party managers to invest in SMEs, others provide guarantees to banks that fund the SME segment and others offer business start-up incubation services, mentoring and advice. It would be a fair summary that to date the impact has been relatively muted as many initiatives are still at an early stage. Some initiatives are solid and well intentioned but simply lack the scale to have a major impact. For instance in Egypt, the primary loan guarantee support program for SMEs is the Social Development Fund, which has been capitalized with less than US$ 200 million and typically offers small loans of up to US$ 300 thousand, which is not sufficient for many high growth SMEs. Even in relatively well-funded countries such as Saudi Arabia, many of the programs run independently of each other and with relatively little coordination between the government and private sector.

Consequently, despite the best efforts of many governments, the SME segment continues to suffer from a lack of access to capital. Abraaj routinely receives, through its on-the-ground presence in various countries in the region, requests to invest in SMEs that are driven by a lack of available financing for growth plans. Given these dynamics, there is an attractive opportunity to fill this gap and provide much needed capital for the SME segment, in particular long-term, strategic capital for businesses with the potential for significant growth.

Reorientation of Government Support

Broadly speaking, governments in most countries in the region have adopted policies to stimulate their SME segments. At the very least there is broad acknowledgement of the fundamental importance of SMEs to the health of their respective economies and to their communities more generally. This is particularly the case with respect to governments in the region achieving their strategic objectives of diversifying their economies from commodity-based sectors and increasing employment opportunities for the region's young population, of which c. 50% is under the age of 25. Accordingly, several have gone further and have begun to look to bridge the financing gap that currently exists for regional SMEs. The chart below highlights some of the initiatives undertaken by the regional governments.

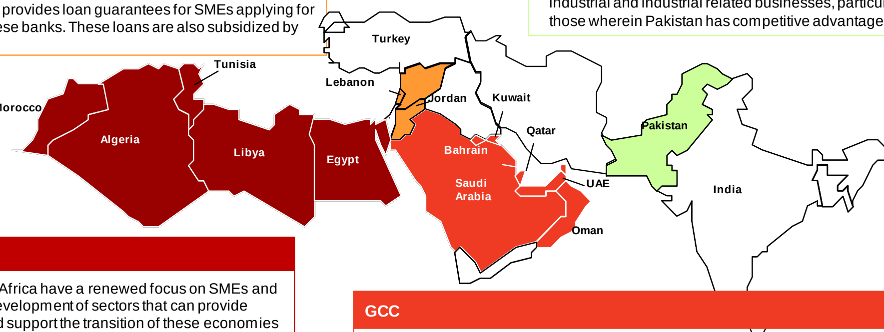
[12] US SBA, Dun & Bradstreet

Levant

- Governments in the Levant region are seeking to capitalize on their human capital base and reverse the historical 'brain drain' by ensuring that entrepreneurs have sufficient access to capital
  - Jordan – JEDCO in late stages of finalizing its initiative to seed series of SME funds
  - Palestine – recent efforts to support SMEs include SME loan guarantee scheme and a US$ 50 million private equity initiative launched by the Palestine Investment Fund.
  - Lebanon – Kafalat provides loan guarantees for SMEs applying for loans from Lebanese banks. These loans are also subsidized by the central bank

Pakistan

- The SME Development Authority has identified and is looking to support sectors with significant potential for export growth, including dairy, textiles and gems & jewelry
- The Competitiveness Support Fund (in conjunction with the Ministry of Finance and US AID) is seeking to launch US$ 250 million Pakistan industrial venture fund to support industrial and industrial related businesses, particularly those wherein Pakistan has competitive advantage



North Africa

- Governments in North Africa have a renewed focus on SMEs and are encouraging the development of sectors that can provide sustainable growth and support the transition of these economies to next stage of development (e.g. non-agriculture-based)
  - Algeria – SME Ministry seeking to create 3 million jobs by 2014 and is allocating significant funds to support development of over 200,000 SMEs
  - Egypt – Industrial Modernisation Centre increasingly focused on SME sector and has already seeded 3 third party SME private equity funds
  - Morocco – The government has recently launched initiative to provide US$ 20 million of seed funding to private equity fund targeting SMEs

GCC

- Governments in the GCC are focused on driving job creation and economic diversification by leveraging their natural advantages of location & hydrocarbons to support industries such as logistics and downstream manufacturing
- Efforts are being made to establish coordinated programs to support SMEs
  - Saudi Arabia – National Industrial Strategy will provide various support for SMEs, including potential funding for third party SME private equity funds
  - Bahrain – Government is supporting SME segment through entities including the Economic Development Board, Bahrain Development Bank and Tamkeen
  - Qatar – c. QAR 2 billion program is being planned by the Ministry of Business & Trade to support the development of the SME segment
  - Arab Fund for Social and Economic Development – Kuwait-based, recently launched US$ 2 billion initiative to provide support for SMEs across the region

It is important to note that until quite recently many of the regional governments have not had coordinated SME strategies. While many have played lip-service to the importance of the segment, the SME support programs that have been launched have been narrow in their application and many have not been coordinated with private sector participants. For instance, rather than channeling funds to SMEs through private sector institutions such as banks and local investment firms, who are best placed to recycle this money to SMEs, governments have been more interested to invest in companies directly. However, governments are generally not organized to efficiently invest in or provide the institutional support required to assist SMEs.

The less than desired impact of existing programs combined with the pressing need to catalyze the development of the SME segment has forced governments to adapt their approach. As a result, more recent efforts have focused on successful models from the West that are more akin to public-private partnerships. These programs include the establishment of loan guarantee schemes wherein governments channel subsidized funds through the existing banking infrastructure to support SMEs. Examples include loan guarantee schemes facilitated by the Overseas Private Investment Corporation (OPIC) in both Palestine, via the Palestine Investment Fund, and Turkey, via Garanti Bank. A number of governments in the region, such as in Jordan, Morocco and Egypt, have also established programs to provide seed capital for private sector run venture capital and private equity funds. Importantly, governments have been increasingly keen to consolidate their various SME initiatives under one structure. For instance in Saudi Arabia, the country's SME initiative, which currently involves non-related entities such as the Ministry of Finance and Saudi Arabian General Investment Authority, is now being consolidated under the Ministry of Commerce's National Industrial Development Program. These consolidation efforts, and the willingness to develop private-public partnerships, are the strongest signals yet of the importance that governments are placing on developing cohesive and effective SME strategies.

Beyond national governments, some multi-lateral institutions in the region have also expressed interest or more in supporting the SME segment. Notable among these are the Arab Fund for Social and Economic Development which is in the process of setting up a fund to support SMEs in the Arab region. US$ 1 billion has already been committed to this fund with Saudi Arabia and Kuwait committing US$ 500 million each.

Perhaps not surprisingly, given the geo-political importance of the region on a global basis, the initiatives of regional governments and multi-laterals have been echoed in the developmental arms of highly industrialized countries and Western political powers. Many non-regional countries have programs aimed at providing finance and other developmental support to economies within the region. The recent Call for Proposals for the Global Technology and Innovation Fund by OPIC in the United States is a case in point, drawing as it does upon the 'engagement with Muslims' theme of President Obama's speech in Cairo on the 4th of June, 2009. Investment activities by international financial institutions such as the International Finance Corporation, the European Investment Bank and PROPARCO of France have been on-going in the region for several years and are increasingly focusing on SME stimulation. Even private sector firms such as Cisco – with its "Partnership for Lebanon" program - have initiatives aimed at supporting technology growth into the region. This all adds to the real sense of 'here and now' about the opportunity.

From a venture capital perspective, it is worth noting that the ecosystem has not yet fully evolved to include a broader base of constituents such as academia and corporates in the region. There are some efforts under way to change this, including a technology commercialization development program at the Higher Colleges of Technology in the UAE and similar efforts in Jordan, these programs are relatively new and have yet to be proven out. They are also contained and not widespread across the region. However, this is expected to change going forward as there is more focus on supporting entrepreneurship and SMEs.

2. THE ABRAAJ MODEL: A TWO-TIER STRUCTURE

The approach of Abraaj in addressing the SME segment is to establish a two-tier model for it Riyada Enterprise Development ("RED") SME platform, both in terms of legal structure as well as resource deployment. In terms of legal structure, RED will comprise a region-wide investment vehicle together with a series of country-specific investment vehicles in target countries throughout the region. Third party capital will be raised at both the regional and country levels, depending on the orientation of specific investors. A benefit of this structure is in fundraising given that many host governments and other governmental and non-governmental institutions are willing to allocate capital to the SME segment on a country-specific basis. Abraaj will thus be able to accommodate such 'patriotic capital' within its overall strategy. In addition to country-dedicated capital, the structure also provides for country-dedicated resources and, more particularly, locally experienced, on-the-ground investment professionals. Each country team will be backed by the regional SME platform and indeed the entire Abraaj network, including its market leading private equity platform. Country specific vehicles have been established for Jordan, Lebanon, Palestine and Egypt.

Uniqueness of Approach

The above model is different than the traditional Abraaj private equity model, which is organized in a more centralized manner. For instance, Abraaj's larger buyout funds have been established with a regional rather than local mandate. Therefore is only one fund for the entire region, supported by a centralized investment team based primarily in Dubai. However, Abraaj firmly believes that a different approach is required to properly address the SME segment, which is local by its very nature. This means that a full time presence on the ground in each target country optimizes the day to day management of RED, whether in terms of deal sourcing, execution, portfolio support activities or otherwise. Accordingly, it is important that each country vehicle be staffed with its own investment team and self sufficient in this respect. A geographically centralized model is believed to be sub-optimal in all of these respects and probably highly risky from an investment management perspective. A properly structured two-tier approach, pooling or drawing upon additional regional resources where required, will also enable the Fund to benefit from the economies of scale enjoyed by larger funds.

By way of summary, the key benefits of the two-tier approach include the following:

Regional aspect

- Facilitate regional expansion of local companies
- Economies of scale at the fund level (e.g. junior resources)
- Ability to leverage larger base in-house, specialized resources
- Economies of scale at the portfolio level (e.g. back office)
- Ability to attract investors seeking regional exposure

Local aspect

- On-the-ground, independent investment teams with specific local market knowledge
- Maintaining ties to local business community
- Specific knowledge of intricacies of doing business in local environment
- Access to informal and formal sources of local market knowledge and business intelligence
- Ability to attract investors seeking local exposure

Tailored Investment Strategy

Ownership stakes

RED will take influential minority stakes, typically ranging from 20% to 50%, to ensure that the entrepreneur/management team remains fully incentivized. This also addresses certain business and cultural sensitivities in the region, with family-run businesses often reluctant to give up too much of their 'equity'. In conjunction with its investments, RED will require sufficient board representation (in many cases disproportionate to its shareholding – and usually a minimum of two seats), in order to provide the necessary level of strategic support and 'influence'. Necessarily RED will reserve veto rights on all key decisions related to the company and standard exit rights to facilitate ultimate realization of the investment. Such exit rights are more important than in traditional buy-out structures given the implicit lack of control by the minority shareholder.

Transaction sizes

Transaction sizes will vary from country to country, reflecting the size of the country vehicles. Broadly investments will range from US$500 thousand to US$ 15 million. Given the focus on acquiring influential minority stakes of between 20-50%, the average enterprise value of target companies is expected to be in the range of US$ 10-20 million, with a maximum cap of US$ 50 million and a minimum of US$ 1 million. The minimum investment size has been set at US$ 500 thousand in order to remain opportunistic in some of the smaller or technology focused markets (e.g. Palestine, Jordan, Lebanon, Oman).

Investment structures

Investments may be made through a variety of instruments, including ordinary equity, preferred equity, mezzanine debt and convertible/hybrid debt as appropriate. There will need to be a core tranche of true equity share capital and the use of additional instruments will depend on the nature of the target business, its financing requirements and cash generating capability. Given the varying needs of SMEs in the region, RED will necessarily need to have flexible mandate in this regard.

Differences from the US model

It is important to note that when discussing the SME segment and venture capital opportunities in the MENA region, the focus is much more on traditional industries than the development of new technologies. The US venture capital model is, to some degree, based on the latter wherein a portfolio of 10 investments will have 1-2 mega-hits and make up for failed investments in the portfolio. Kleiner Perkins' investment in Google was one such example, wherein its c. US$ 20 million investment generated close to c. US$ 18 billion in distributions and generated substantial returns for investors in a fund that otherwise was suffering. However, in the MENA region there have not been cases of technology-based business models generating these Google-like returns. Nevertheless, there are an increasing number of venture capital businesses that are being established to take advantage of the proliferation of the internet in the Arab world. Some of these have provided early success stories. One example is Maktoob, the region's first on-line portals and a company in which Abraaj was an early stage investor; Maktoob was eventually acquired by Yahoo! which is actively seeking to expand its presence in the Arab world, along with Google and Microsoft. While technology-based investments have to date been rare (although increasing in number) there remain a number of venture-like investment opportunities in traditional industries. Such opportunities present attractive risk-reward based investments. Examples include entrepreneurs in the region who are creating innovative business models in traditional industries such as healthcare and education, sectors that have traditionally been government-run but that are increasingly being open to the private sector as governments seek to reduce their fiscal burdens, attract private sector investment and improve the quality of service. Generally, successful models from developed markets can be employed and customized to the MENA region. In these types of businesses, the focus is often more on execution and backing strong management teams than it is on creating new business ideas.

3. PARTNERING WITH GOVERNMENTS

The development of Abraaj's SME platform is, by its nature, closely tied to the strategic goal of governments in the region to boost support for the SME segment (as discussed earlier). Accordingly, Abraaj has been working closely with regional governments with respect to establishing the RED platform. Examples include Palestine, Jordan and Egypt, where Abraaj has established its fund in conjunction with various government ministries that are keen to support the development of SMEs in specific industries, including the Industrial Modernization Center in Egypt, the Palestine Investment Fund and the Jordan Enterprise Development Corporation. Discussions are also taking place with a number of other governments with regards to establishing a dedicated SME investment vehicle for their country. In addition to regional governments, Abraaj has also been working closely with a number of DFIs and multi-lateral organizations whose goal is to support economic development in various countries in the region. These include entities such as OPIC, the IFC, European Investment Bank and others. To date, there has been significant momentum created through these conversations, with some of these entities serving as cornerstone investors in the RED regional and country investment vehicles. The high level of interest shown by these governments has been an important factor in the successful establishment of RED.

In addition to its investment platform, Abraaj has also engaged governments in the region with regards to various corporate social responsibility initiatives that are also tied to the SME segment. Chief among these has been the creation of a dedicated on-line portal to support SMEs and entrepreneurship in the region. Abraaj has been working over the past several months on this portal, which will provide for free content for entrepreneurs including legal advice, information on countries and sector opportunities and videos including interviews with a number of the region's leading entrepreneurs. Importantly, a number of government entities in the region as well as leading corporate entities (including technology companies, law firms and other service providers) have joined Abraaj in supporting this venture as cornerstone sponsors and providing free content in this respect.

4. LESSONS LEARNT AND RECOMMENDATIONS

In developing its RED platform, the following lessons have been learned:

- The ecosystem for SMEs in the MENA region is still in a developmental stage. Although governments are keen to support this segment, the success of their programs to date has been mixed and their approach is now changing to support more private sector involvement. Also, there has been limited involvement to date from academia and corporates in supporting this sector. Bank lending to this sector is also weak, with SMEs accounting for only 8% of the loan portfolios of banks in the region. Therefore, investors need to take into account the relatively weak ecosystem.
- The SME segment in the region is a very local market, especially given the region itself is heterogeneous from the Levant, to North Africa to GCC, Turkey and South Asia. Therefore a local approach is required and it is extremely difficult to address the SME segment on a centralized basis (e.g. from Dubai).
- A tailored investment strategy is required to address the SME segment. Given that most SMEs in the region are first/second generation family businesses, the opportunities for buyouts in this segment are limited. Therefore, a more growth capital oriented approach is required wherein investors must be comfortable taking minority stakes in these enterprises. This issue can be overcome through structured shareholder agreements, but more importantly it is important to develop a strong relationship and level of trust with the counterparty (i.e. entrepreneur).
- The investment opportunities can be classified more as venture capital investments in traditional industries rather than technology-based investments. Despite the lack of opportunities to generate Google-like returns, there are extremely attractive investment opportunities on a risk-adjusted basis in the SME segment in the MENA region.
- In terms of investment themes, many of the entrepreneurs in the region are seeking ‘smart’ capital to help institutionalize their businesses and expand past their local markets. Therefore, a private equity firm that has a track record in this respect and a regional network can add immediate value to these entrepreneurs, who are looking for strategic support as much as growth capital. However, one would need to be careful that they are investing in a strong management team that will not require too much hand holding and for whom it will be sufficient to provide strategic-level support.
- There is significant pent-up support for SMEs in the region, from governments, multi-lateral institutions and corporates in the region. Leveraging these strategic partners can provide critical support for firms seeking to invest in this segment.

GOBI PARTNERS

Public Policy Forum on Venture Capital:

The China Perspective

October 25, 2010

Key Market Challenges for China

GOBI PARTNERS

- **Intensifying competition in all market sectors**
  - Markets are opening up, allowing for entrance of competitive foreign players
  - Domestic companies are also developing quickly, supported by strong capital supply and market demand
- **Increasing wages as standard of living rises in China**
  - Companies are facing increasing wage pressures as workforce demands greater compensation for their labor
- **RMB appreciation is a double-edged sword:** ***Be careful what you wish for!***
  - Trade surpluses and foreign political pressure will lead to continued RMB appreciation, thereby eating into China's traditional cost advantage
  - At the same time, RMB appreciation will also drive Chinese purchasing power abroad

Expansion Inland and Overseas

GOBI PARTNERS

As the China market matures, more companies will look to leverage the growing opportunities both inland and overseas

- With increasing urbanization and growing middle class, markets in the currently **untapped 2nd and 3rd tier cities** will grow in importance
- As Chinese companies continue to develop and mature, they will acquire attractively priced targets abroad and **seek expansion overseas**

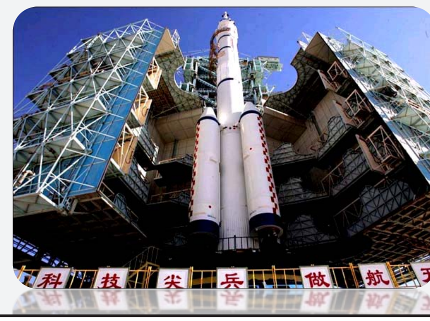
A growing number of Chinese companies are stepping onto the global stage

Increasing Emphasis on Innovation and Brand

GOBI PARTNERS

Chinese companies will place greater emphasis on innovation and brand-building as they look to sustain long-term growth

- Increasing pressure from competition, rising wages, and RMB appreciation is forcing companies to **move up the value chain** from simple manufacturing
- More **innovation** is necessary to compete effectively in both domestic and global markets
- More sophisticated consumers, the growing need for differentiation, and increased competition for talent has necessitated **greater emphasis on brand** value and recognition



Rise of the RMB Ecosystem

GOBI PARTNERS

- **Emergence of huge pools of domestic capital**
  - In April this year, the China National Council ruled that the National Social Security Fund will be allowed to invest up to 10% of its RMB800 billion fund in private equity
  - As of June 2010, China's national insurance funds will be allowed to invest up to RMB226 billion in private equity funds
- **Increasing number of RMB funds to match capital supply**
  - In 2009, nearly US$7 billion was raised by RMB funds in China, compared to approx. US$4 billion raised by foreign-denominated funds
  - Nearly all venture and private equity firms in China are looking to raise RMB capital from domestic LPs

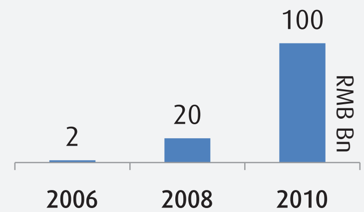
- **Domestic exits now exceptionally attractive for venture-backed companies**
  - ChiNEXT (创业板), a NASDAQ-type exchange for high-growth, high-tech start-ups, was opened in October 2009
  - There are currently 120 companies listed on ChiNEXT, with total market cap. of RMB 474.4 billion, and average P/E ratio of 63.02 *(as of Sept. 22, 2010)*

Government Investing in Venture Capital

GOBI PARTNERS

- The Chinese government has been investing in RMB funds since 2006, in an effort to attract more venture capital into the economy
- Government Introductory Funds are now starting to be more passive: contributing smaller percentages of Funds with less management involvement and fewer geographical restrictions

Growth in Government RMB Funds (2006-2010)



	Beijing	Shanghai	Tianjin	Chongqing	Shenzhen	Suzhou
Size (RMB Bn)	4.5	10	10	5	3	5
Funds Invested	20	20	20	15	10	20
Tax Incentives	For funds & partners	Funds only	For funds & partners	For funds & partners	Funds only	Funds only
Formation Incentives	Up to RMB 10Mn	Up to RMB 10Mn	N/A	Up to RMB 2Mn	Up to RMB 15Mn	N/A

Surplus of Capital Favors Active Investors

GOBI PARTNERS

- **Excessive capital from both domestic and overseas sources has led to intensifying competition at the growth stage**
  - Majority of firms have drifted towards growth and later-stage deals, hoping to cash in on "quick money"
  - This has vacated the early-stage space, leaving more opportunities for firms like Gobi
- **Entrepreneurs have become more sophisticated, demanding more value from investors**
  - As entrepreneurs in China are wooed by an increasing number of funds, they are becoming more savvy and sophisticated: money is no longer enough
  - In order to generate more value, VCs must return to active investing—building out the teams & infrastructure necessary to support its portfolio

The Gobi Model

GOBI PARTNERS

Early-stage is more labor intensive in China. In order to provide additional value for entrepreneurs and to differentiate from other VCs, Gobi provides a full team with broad geographic coverage

Hands-on Professional Support...

- 15 Investment Executives to manage current and new investments
  - Investment professionals with deep operational expertise
- and 10 additional Executives in the following vertical functions:
  - Finance Team
  - Legal Support
  - Executive Recruitment
  - Public Relations

... with Broad Geographic Coverage

Gobi Office Locations
(As of Sept. 2010)

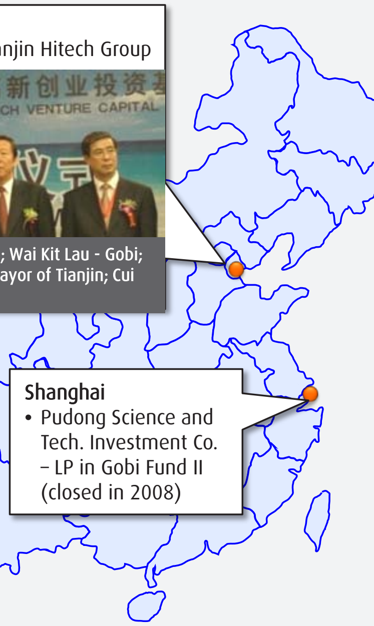
Gobi's Government Partners

GOBI PARTNERS

Strong government relationships lead to additional deal sourcing channels as well as access to valuable government resources

Tianjin
- RMB300mn joint fund with Tianjin Hitech Group

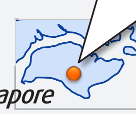
(June 2007) L to R: Lawrence Tse - Gobi; Wai Kit Lau - Gobi; Thomas Tsao – Gobi; Dai Xianglong – Mayor of Tianjin; Cui Jindu – Vice Mayor



Shanghai
- Pudong Science and Tech. Investment Co. – LP in Gobi Fund II (closed in 2008)

Singapore
- SG$100mn fund with the Media Development Authority (MDA)

(June 2010) L to R: Wai Kit Lau - Gobi; Dr. Tan Chin Nam – Chairman, MDA; Dr. Christopher Chia – CEO, MDA



Lessons Learned

GOBI PARTNERS

- Government should not be in the business of picking individual winners; instead, they should create the conditions that can nurture a self-sustaining venture ecosystem

- One-time grants or subsidies for startups are well-intentioned, but may not be the best use of time or resources due to lack of accountability

- Infrastructure projects such as innovation parks are helpful to showcase and create suitable environments for innovation, but too many competing projects dilutes the necessary critical mass and also confuses investors

Key Recommendations for Government

GOBI PARTNERS

- **Attract and leverage private capital, and invest more money into early stage funds:**
  - Pick the best fund managers – not the most promising startups or technologies
  - Offer higher management fees or higher carry to early-stage funds
  - Incentivize VCs, but also emphasize greater accountability

- **Build and structure capital markets to support and encourage liquidity**
  - Tax incentives for both early-stage funds and innovative companies
  - Implement regulations that allow for options and preferred shares
  - Build a NASDAQ-style public listing venue to provide domestic liquidity

The goal is to kick-start an ecosystem, and VCs are a key component of that; once the VCs are in place, the rest of the ecosystem will fall in line (incl. private placement firms, advisory boutiques, headhunters, late stage funds, etc.)

The Multilateral Investment Fund - Supporting the Creation of a Venture Capital Industry in Latin America

Public Policy Forum on Venture Capital

Quebec City, October 25-26, 2010

Susana Garcia Robles – Lead Specialist
MIF Early Stage Financing Program
for Latin America and the Caribbean

Multilateral Investment Fund
A Member of the IDB Group

Table of Contents

The Multilateral Investment Fund

- **A member of the IDB Group since 1993**- part of the Private Sector Window with 38 donors (beneficiary and non-recipient countries, China is a donor country) Within the IDB, the institution with the highest appetite for risk and innovation
- **The largest technical assistance and equity provider to the private sector in Latin America and Caribbean** - US$80-100 million per year
- **Synonymous with clear development impact** - over 4 million small producers and micro entrepreneurs reached
- **A recognized track record** - 590 completed projects, 87% of which achieved their development goals
- **A cutting-edge innovator** - testing and rigorously evaluating new business models to take private sector to the next level

The MIF works with governments, NGOs, Foundations & private sector companies as…

- **The 'knowledge broker and hub' of a large network of local & international partners** - 650 partners that share FOMIN goals
- **Provider of grants, loans and equity investments** - average grant size of USD 1.5 million
- **The gateway for extensive knowledge and expertise** on private sector solutions for LAC MSMEs and entrepreneurs

MIF is about leveling the 'Access Playing Field' to empower economic activity, growth and a way out of poverty

Access to Markets

- Business Capabilities
- Market Functioning
- Job Skills

Access to Finance

- Microfinance
- Venture Capital
- SME Financing
- Financial Services

Access to Basic Services

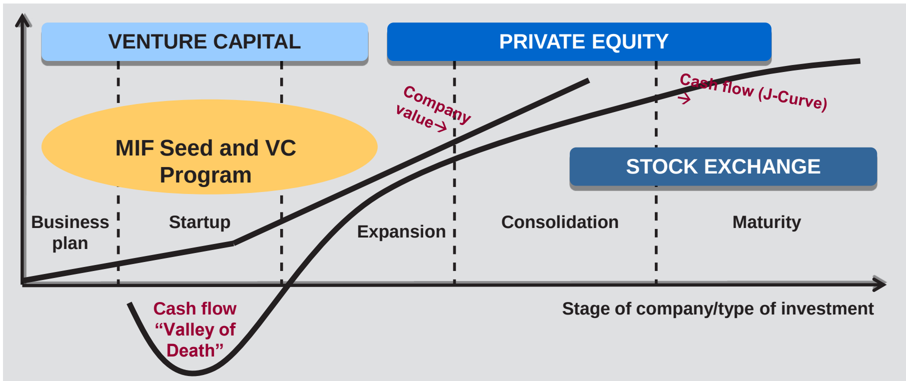
- Climate Change
- Private Sector engagement in basic services

➢ In Venture Capital, as part of Access to Finance, the MIF utilizes both grant and equity financing to promote private sector development and entrepreneurship. Few DFIs have this double pronged approach

Table of Contents

How VC Investment Works

- **Long-term -** typical fund life is about 10 years
- **Hands-on -** fund managers work in partnership with entrepreneurs to make SMEs grow
- **J-Curve pattern of returns -** funds present a negative IRR (return) in the first years while a fund makes investments, but the returns improve as fund starts exiting from investments



How Does Venture Capital Provide ACCESS?

Actors - Working in partnership with VC industry actors to reach MIF's goals

Catalyst - Catalyzing investment to LAC from the public and private sectors

Capacity - Building skills and capacity of entrepreneurs, SMEs, VC funds, investors and regulators

Entrepreneurs - Empowering local entrepreneurs

SMEs - Investing in and formalizing business activities of SMEs; contributing to the growth of SMEs that participate in the LAC knowledge economy

Sharing - Disseminating lessons learned; reaching the key actors

Venture Capital Transforms

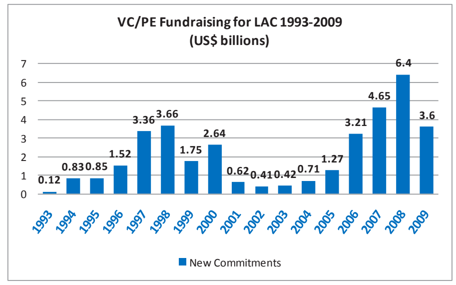
- **Finance** - offering new ways to finance entrepreneurs ' ideas and companies through equity, quasi-equity and convertible loans
- **Growth** - Job creation, rising incomes and resulting GDP growth contribute to poverty alleviation
- **Skills and Capacity** - VC fund managers improve SME management, operations, corporate governance, auditing and finance practices
- **Partnerships** - VC fund managers are long-term, hands-on investors who work in partnership with entrepreneurs
- **Development** - VC stimulates sustainable development of the private sector and the knowledge economy
- **Markets** - VC develops markets by turning entrepreneurs' ideas into useful products and services

VC Makes a Developmental Impact Globally

- In 2008, US companies that had been backed by VC funds at some point accounted for 21% of GDP (USD 3 trillion in revenue) and 11% of private sector employment (12 million jobs)
- In South Africa, average employment growth rates at VC/PE backed companies were 10% per annum, compared to 1% across all businesses
- In Ireland, companies backed by VC funds have been increasing revenues on average by 21.6% per annum since 2003
- In Israel, where VC has been key to economic diversification and building of knowledge-based sectors, 40% of software and electronics products are produced by companies that had been backed by VC funds at some point

Growth of Venture Capital and Private Equity in LAC

- VC has existed in LAC on and off since the mid to late 1980s, with Brazil, Argentina, Chile and Mexico leading the industry- Focus was mature stage/private equity
- The growth of these early funds was funded largely by local government agencies like BNDES (Brazil) and NAFIN (Mexico) along with the MIF (since 1994)
- MIF entered the industry in 1996, when VC was virtually nonexistent in LAC, and helped rebuild VC after the dot-com bubble burst in 2000
- In 2008, USD 6.4 Bn was raised for VC/PE investment in LAC, while USD 4.6 Bn was invested by VC/PE funds in LAC



Growth of Venture Capital and Private Equity in LAC

- **MIF has been instrumental** in developing the VC segment from virtually nothing - VC now accounts for an estimated USD 900 mm of the VC/PE fundraising in LAC
- **MIF is a catalyst** - its investments are leveraged about 4:1

➢ Internet boom and bust changed the industry's landscape for almost a decade: the bubble to bust cycle followed US crash, it showed cracks in the industry in LAC as
  - Performance very poor as US style practices not entirely transferable;
  - Inadequate legal and regulatory structures
  - Less mature entrepreneurial culture
  - Lack of depth in fund manager industry in the region
  - Lack of jurisprudence and disclosure issues a challenge

➢ After 2003, re-building from the ashes; in 2006 and 2007: entering another, more mature and sustainable boom in some countries

➢ **Numbers speak:** Fund raising over USD 3.6 billion in 1998, following to USD 407 mm in 2002 reaching a gradual recovery to pre crisis levels with USD 3.1 billion in 2006, by 2008 reaching a high of USD 6.4 Bn, and falling to USD 3.6 Bn in 2009. (VE-LA Mid-Year report 2007, LAVCA Industry Report 2010)

➢ To a large extent, VC is still a nascent industry in the Region, but a few countries are showing signs of a more mature industry

Developmental Impact of MIF VC Portfolio

- As of 2008, MIF's investments in VC funds have helped finance **290+ SMEs** and support **16,000+ jobs**
- In 2008 alone, **portfolio companies generated $817MM+** in revenues and $58MM+ in taxes paid by SMEs
- MIF has **catalyzed private and public investment** (e.g. CAF, Norfund, NAFIN, high net worth individuals, pension funds, private banks)
  - including ~$**900 MM** of VC investment from Brazilian pension funds

FOMIN 13 of 31

Indirect Impact of MIF's VC Portfolio

In addition to stimulating direct job creation, tax revenue generation and contribution to GDP by SMEs, investments made by VC funds have a broader impact

- Development of related industries and indirect job creation
- Social impact of portfolio companies' products (e.g. potential development of medicines, vaccines, useful technologies)
- Growth of key sectors such as tourism, manufacturing, agriculture, food production (e.g. CASEIF I & II, Emerge, AgroDesarrollo, Guanajuato)
  - Skills and jobs at different income levels
  - Formalize SME business activity
  - Improve governance, auditing and financial reporting
- Growth of knowledge-based sectors: medicine, software, renewable energy, technology, education (e.g. RESTec, Burrill, Stratus GCIII)
  - Develop high-tech industries
  - Create intellectual property and commercialize scientific findings and inventions
  - Create high quality jobs and fight brain drain by keeping and attracting back to LAC locals with PhDs, MDs, Masters, MBAs, etc.
  - Diversify economies away from commodity-based business activities
  - Catalyze development of business communities focusing on science and technology similar to Silicon Valley, US and Bangalore, India

FOMIN 14 of 31

Developmental Impact Example: CASEIF II (Central America, 2007)

- **Fund status**
  - Impact of crisis felt, but performance is positive
  - Companies expanding regionally, launching products, adjusting strategy and operations
  - Support for young entrepreneurs and workers
  - Improvement of SME competitiveness through ISO and other standards
- **Selected portfolio companies Inalma (Honduras)**
  - Provider of yucca, plantain and fruit products to WalMart, Goya, etc.
  - 257 employees, 66% are 18-30 years old
  - 3,000+ indirect jobs
  - 20+ employees attended high school, technical school or university through Inalma's scholarship program
- **Tecnosol (Nicaragua)**
  - Has installed 48,000+ renewable energy systems (solar, hydro, wind); 270,000 people benefitted
  - Serves clients without access to the electricity network and those seeking energy savings, efficiency
  - 87 employees, 55% are 18-30 years old
  - Carbon offset: 1,539 tons of CO_2

Key Facts

- **Capitalization $29MM, invested $10.33MM** - fund still has 7 years of operations left
- **8 portfolio companies**: 858 direct and 3,050+ indirect jobs
- **58% of portfolio companies' employees** are 18-30 years old
- **1 partial exit** (Feb. 2010): Ceconsa (Nicaragua)
  - 16% IRR
  - Construction company building low- and middle-income housing

Table of Contents

More than 15 years ago, the MIF set out to promote equity as a development tool by:

1. Supporting promising companies through specific programs
2. Attracting private capital for SMEs
3. Promoting technology
4. Encouraging development of local fund management experience
5. Promoting good governance among funds and companies invested
6. Promoting a culture of investing among entrepreneurs
7. Asking for rates of return in line with market expectations
8. Working on developing the capital markets, to improve exit possibilities

•Our mandate is to support companies in the range between start-ups to companies with up to 100 employees, that can have from zero to a maximum of USD 5 mm in annual sales or assets at the time of our intervention

•We stimulate the development of these dynamic ventures and small businesses, by providing loans, quasi-equity and equity through seed and venture capital fund managers specialized in these segments of the private equity industry

•We do not invest directly in companies

Today, the MIF is a VC Leader in LAC

- **Pioneer -** MIF began building the VC industry when there were almost no VC funds in the region
- **Builder of the VC industry through:**
  - Investment in local VC funds
  - TA projects
  - Providing advice to investors new to LAC and to other industry players
- **Committed investor -** MIF has invested in more VC funds in LAC than any other investor
- **Unique among DFIs:**
  - MIF's structure and mandate allow it to take more risks, permitting it to focus on an incipient segment like VC
  - Can invest and provide TA grants, which gives multiple tools for building industry
  - Focus on seed and early stage VC, whereas most DFIs focus on mature VC and PE; this allows MIF to concentrate on developing SMEs rather than large companies
  - Focus on SMEs means that MIF reaches more under-served companies and entrepreneurs

Key Facts:

- **1996- July 2010:**
  - MIF invested in 62 seed and VC funds, representing a USD 280.7 mm commitment
  - Disbursed USD 141.4 mm
- **46 funds are currently active, representing a USD 232.4 mm commitment**
- **Engaged 60+ co-investors**

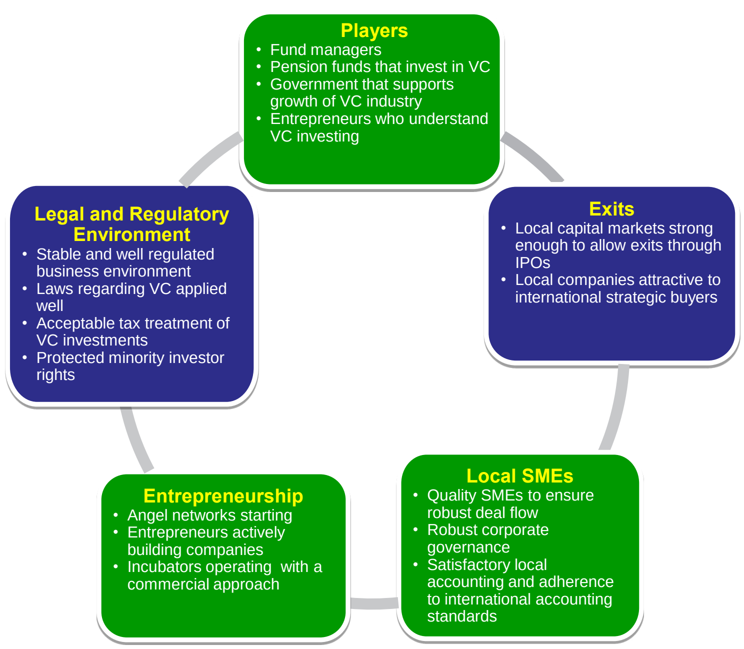
How did the MIF helped develop the VC industry in LAC?

- **Technical Assistance Programs -** The MIF works with entrepreneurs to position their companies
- **Creation of an asset class -** The MIF supports local management teams and provides them with training on international best practices
- **Angel and Venture Capital associations –** The MIF provides grants to start these regional and country associations
- **Focus on networks –** The MIF has acted as a platform for entrepreneurs, fund managers and investors to meet and share experiences
- **Advisory Services -** The MIF advices governments on regulatory issues and VC industry best practices → improve the regulatory environment for the industry
- **Scorecard on VC Environment -** The MIF worked with The Economist and LAVCA to develop a scorecard ranking the environment for VC/PE investment in 13 countries in LAC

The MIF Value Add in Developing VC

- **Committed Investor –** Has provided capital in 55 seed and VC funds in the LAC region
- **Builder of local capacity -** Has supported the development of new, local fund management companies, helping them acquire fund management skills according to international standards; this is expertise that they passed onto the entrepreneurs of the fund's investee companies
- **Partner with public and private sector -** The MIF has worked with the public and the private sector on regulatory changes to make the LAC markets more attractive to international and local private sector investors (i.e., shareholders' rights)
- **Knowledge Transfer –** The MIF has shared its know-how in due diligence with other investors, creating a pool of knowledge in the region, and shortening the learning curve for this industry
- **Focus on networks –** The MIF has acted as a platform for entrepreneurs, fund managers and investors to meet and share experiences
- **Counter cyclical -** The MIF does not leave the region in spite of volatility, rather, it works harder to convince other investors to stay in the region and have a long-term approach

Elements of a Conducive Venture Capital Ecosystem



Status of VC Ecosystems in LAC

MOST DEVELOPED VC ECOSYSTEMS Brazil, Chile, Colombia, Peru	MOVING TOWARD CONDUCIVE BUSINESS AND/OR REGULATORY ENVIRONMENT Mexico, Uruguay, Argentina, Costa Rica	CURRENTLY DO NOT HAVE CONDUCIVE BUSINESS AND/OR REGULATORY ENVIRONMENT Panama, Barbados, Bahamas, Jamaica, Suriname, Trinidad & Tobago, Bolivia, Paraguay, Belize, Dominican Republic, El Salvador, Guatemala, Haiti, Honduras, Nicaragua, Ecuador, Guyana, Venezuela
• Most promising VC ecosystems • Acceptable legal, tax and regulatory frameworks in place • Fund managers with track records • Local capital markets and strategic exits possible • Numerous SMEs and entrepreneurship culture • Still room for improvement • PE is most developed in Brazil, but early stage VC, seed and angel investing needs to be developed further	• Entrepreneurship is flourishing • Angel groups starting • Incubators are commercializing • Entrepreneurs starting to understand VC • Corporate governance and accounting standards receiving attention • Few capable local VC fund managers • Funds with track record in PE only • Some government actions are not investor-friendly • VC laws need to be improved or put in place (e.g. Argentina, Mexico) • Tax treatment of VC investments needs improvement • Exit options are limited • Pension funds do not invest or are not permitted to invest in VC • No organized government support to VC • Minority shareholder protection rights are ambiguous	• Early stages of corporate governance awareness • Angel groups starting • Scarcity of capable local VC fund managers • Business environment at times challenging • No local laws for VC investing, so only offshore funds are possible • DFIs and foreign PE regional funds are the main investors in VC/PE • Pension funds not investing in VC • Difficult to generate adequate deal flow due to size of markets • Exit options are limited • Government does not provide organized support to VC industry • Minority shareholder protection rights are ambiguous • Low levels of entrepreneurship • Few incubators • Quality of accounting standards is ambiguous • VC and seed investing not well-known

Lessons Learned

- **Sustainability**
  - Means attractive financial returns and a positive social and environmental impact
  - Fund size matters (in LAC, minimum USD 30-50 mm) to provide several financing rounds to SMEs and to retain skilled staff at fund management company
- **Skills**
  - NGOs and government agencies generally do not make good fund managers
  - Due diligence should focus on fund management team
  - Differentiating factor in fund quality is fund manager's skills
  - Fund manager should look for "serial" entrepreneurs
- **Ecosystem**
  - Silicon Valley model is not a good fit for LAC
  - LAC VC is less focused on disruptive technologies and life sciences, and is less likely to obtain attractive returns from one "home run" investment and IPOs
- **Environment**
  - Improving regulatory and legal environment is essential to attracting investors

Lessons Learned (Continued)

- **Industry support**
  - Support for VC associations is important to raise awareness and attract investors to LAC
- **VC is an international business**
  - Bridges between LAC and other markets need to be strengthened to facilitate exits and attract foreign investors
- **Financial instruments**
  - Quasi-equity and loans are often a better fit for incipient VC markets than equity
- **Exits**
  - Attractive exits through strategic sales are happening despite size of local capital markets, although IPOs yield better returns
- **Returns**
  - Driven by portfolio company growth and increased efficiency rather than leverage or multiples

Lessons Learned (Continued)

- **Sector-specific funds**
  - VC may not be the right tool for environmental and tourism funds; use of grant and mezzanine facilities may be more suitable for these sectors
  - VC is right for sector-specific funds in more developed markets in LAC (e.g. technology in Brazil, agribusiness in Chile)
  - LAC VC model seems to work better when funds focus on more than one sector
  - Base of the Pyramid Funds a new bridge between microfinance and venture capital
- **VC requires full commitment**
  - Managing VC funds should be fund manager's sole source of income, and fund managers should be fully dedicated to VC
  - Incentives should be aligned
- **Evaluation tools**
  - MIF-funded evaluations have been key to early detection of problems and compilation of what works and what doesn't work in LAC VC

Table of Contents

What role for the Government?

- Governments need to promote the industry through technical assistance grants and innovative programs
- The development of a VC industry takes decades; governments should take a long-term approach and implement it despite who is ruling the country, and remain involved in VC/PE funding throughout crises
- Pension funds' investment in VC is key to develop the industry; government should create schemes to foster favorable pension funds' regulation on asset allocations
- Support for capital markets development to facilitate exits (Novo Mercado)
- Promotion of favorable tax and regulatory legislation governing investment vehicles
- Improvement of business conditions: World Bank's Doing Business Report.

Key Facts:

➢The development of the VC/PE industry require not only patient investors, savvy managers, a large pool of entrepreneurial talent,

BUT

➢a predictable economic environment, good information sources, an appropriate tax and legal system, and active capital markets to allow for exits: how to achieve this should be studied by the different government agencies to include in their strategic plans

➢The VC industry also requires clustering and critical mass, supported by the appropriate infrastructure (uniqueness of Silicon Valley); a large base of entrepreneurs, scientists and skilled personnel, assisted by a network of service providers. This process requires a significant financial commitment by public institutions

Developing an Industry in Brazil-Partnership with the Government Innovation Agency FINEP: INOVAR (Brazil, 2001-2008)—an Example of Scaling Up

- **Goals**
  - Stimulate the formation of technology-based companies and help them gain access to capital by facilitating the creation of new local VC funds and fund managers
  - Develop an ecosystem conducive to VC investment
  - Forge relationships among Brazilian and international institutions
  - Increase local sources of capital/investors
- **Number of partners working with INOVAR grew from 4 to 17, 11 of which are pension funds**
- **Fund Process**
  - 11 calls for VC/PE fund proposals
  - 90 due diligences out of 190+ fund proposals
  - 89 investors have participated in panels to evaluate fund proposals
  - USD 1.98 BN committed to 25 seed, VC and PE funds
  - USD 900 MM from 13 local pension funds
- **30 venture, seed and IPOs forums**
  - Average of 25 investors per forum
  - Average of 12 participating potential investees per forum
  - 56 companies received USD 55 MM total in seed, VC and 11 companies received USD 1.4 BN in PE investment
- **Scalability**
  - Cost of first phase of the program (2001-2008) was USD 11 MM, of which USD 1 MM was contributed by MIF
  - INOVAR facilitated USD 1.7 BN in investment for 3,600+ SMEs
  - MIF has adapted INOVAR model for Peru and Colombia
  - FINEP has advised Argentina, Chile and Mexico on replicating INOVAR

Considerations

- For emerging countries, integration with developed countries a must
- Study all the fiscal and regulatory issues that can improve the environment for local and international investors
- Improve all business process that can encourage entrepreneurship: time to open and close down companies, patent registration issues, tax breaks, disclosure issues, etc.
- Investment in training, education, and technology is critical
- Governments should promote a culture of entrepreneurship from the early stages of education
- Governments should work with the private sector to better regulatory and business environments; existence of venture capital associations is important to lobby the government in key issues of the industry
- Promotion of local companies and of partnerships with overseas

Business Case

The British Columbia Venture Capital Program

Case Researcher & Moderator: **Dr. Thomas Hellmann**
B.I. Ghert Family Foundation Professor in Finance and Policy
Sauder School of Business
University of British Columbia

Case Researcher: **Mr. Ilkin Ilyaszade**
Sauder School of Business, MBA 2010
University of British Columbia

Collaborator: **Dr. Josh Lerner**
Jacob H. Schiff Professor of Investment Banking
Harvard Business School

Special guests: **Mr. Dan Rosen**
Chairman
Seattle Alliance of Angels

Mr. Todd Tessier
Vice President - Venture Investments
BC Renaissance Capital Fund

Table of content

Business Case

9.1 Introduction

The critical role of business angels as part of the ecosystem to finance technology start-ups is increasingly recognized: overall, they are the first to finance new businesses and available data shows that the volume of their financing is not far from that of venture capital in several countries; in many cases, thanks to their own entrepreneurial experience, they bring not only capital to companies but also credibility, contacts and networks as well as their deep understanding of specific market segments. They may also be able to contribute to set the right culture in these emerging young companies.

At a time when market correction or LPs' desertion could result in a shrinking of the venture capital industry, could business angels' financing be seen, to a certain extent, as an alternative to venture capital financing?

This does not mean that everything flows seamlessly in the world of business angels investing. Business angels have not always the required investment experience when they start investing and may get burnt when it comes to next rounds' valuations. Though there can be a lot of complementarities between business angels and venture capitalists, their relationship may become very antagonistic over the issue of follow-on rounds valuation.

Recognizing their growing importance, several government programs have emerged over the last decade to support business angels' investing: capital gains tax exemption (US), tax credits (UK, various US States, France, Canada) or co-investment funds (Scotland, New-Zealand).

The British Columbia Venture Capital Program is one of these programs which seems to have been particularly successful at (i) stimulating business angels' investment in the tech sectors and (ii) linking "super angels" with venture capital. This is why it was chosen for this year's business case.

Who are these business angels? What is their investment behaviour? What kind of value do they add to their investment? Is the success of this program a reality? What made it successful? How did it avoid some of the perverse effects which may be attached to tax credit programs? How could it be improved? These are among the questions the case will raise.

This case was prepared under the supervision of Dr. Thomas Hellmann, B.I. Ghert Family Foundation Professor in Finance and Policy, Sauder School of Business, University of British Columbia. It benefited from the input of a steering committee composed of three leading BC business angels and venture capitalists (Steve Hnatiuk, Paul Lee and Robin Louis) and from the constant support of Todd Tessier who is in charge of running the program and whom we would like to thank.

As a discussant, we also invited Dan Rosen, Chair of the Seattle Alliance of Angels and a former venture capitalist, who will be able to bring a US perspective to the discussion.

We ask you to please read the case before the Forum in order to be able to participate in the debate.

As for last year's business case, this business case will become a Harvard Business Case.

Business Case

Case Researcher & Moderator

Dr. Thomas Hellmann
B.I. Ghert Family Foundation Professor in Finance and Policy
Sauder School of Business
University of British Columbia

Dr. Thomas Hellmann is the B.I. Ghert Family Foundation Professor in Finance and Policy at the Sauder School of Business at the University of British Columbia. He holds a BA from the London School of Economics and a PhD from Stanford University. He is the director of the W. Maurice Young Entrepreneurship and Venture Capital Research Centre at UBC. Prior to joining UBC, he spent ten years as an Assistant Professor at the Graduate School of Business, Stanford University.

He teaches executive, MBA and undergraduate courses in the areas of venture capital, entrepreneurship and strategic management. His research interests are venture capital, entrepreneurship, innovation, strategic management and public policy. He is also the founder of the NBER Entrepreneurship Research Boot Camp, which teaches the frontiers of entrepreneurship economics and entrepreneurial finance to PhD students.

Recently he wrote a report about the role of government in venture capital for the World Economic Forum in Davos. He also led the evaluation report of the venture capital program in British Columbia. His academic writings have been published in many leading economics, finance and management journals. He has also written numerous case studies on entrepreneurship and venture capital, and led the development of a library of case studies focused on high technology companies in British Columbia. Currently he is writing a textbook on venture capital and private equity.

Case Researcher

Mr. Ilkin Ilyaszade
Sauder School of Business, MBA 2010
University of British Columbia

Ilkin Ilyaszade is a second year MBA student at the Sauder School of Business at the University of British Columbia.

Ilkin is an accomplished senior executive with thirteen years of proven track record in managing businesses in Asia, Middle East, Africa, Australia, Eastern Europe and Americas. Prior to enrolling in MBA program, Ilkin has held various senior executive roles in HR, Operations and General Management in countries such as Azerbaijan, Islands of Maldives, Thailand, Sri Lanka and Singapore. In addition, as head of global operations projects for Singapore based and listed holding, Ilkin has managed high profile luxury resort, hotel, hospital and real estate developments in over ten countries including Vietnam, Kuwait, Bahrain, UAE, Turkey, China, Mexico and others.

Ilkin holds a five year graduate degree in economics from Azerbaijan State Oil Academy and graduate certificate in general management from Cornell University in USA, NY. In his spare time, Ilkin practices jiu-jitsu, enjoys chess, jogging, hiking and diving.

Special guest

Mr. Dan Rosen
Chairman
Seattle Alliance of Angels

Dan Rosen is CEO and President of Dan Rosen & Associates, an early-stage technology investment and advisory firm.

In 2000, Dan was founding Managing Partner of Frazier Technology Ventures, an early-stage venture capital fund in Seattle, where he stayed until 2006. FTV specialized in category-defining technology companies in communications and software.

From August 1997 through May 2000, he was General Manager of New Technology in Microsoft, where he was responsible for assessing Microsoft's new technology needs and finding innovative ways to meet those needs through increasing internal research efforts, licensing, investment, or acquisition. In this role, Dan was also responsible for technology transfer into Microsoft's product groups. Prior to that, Dan was General Manager for MSN with responsibility for transaction and services businesses, e-commerce, and alternate channels.

Prior to joining Microsoft, Dan was at AT&T for 15 years, where he served as Vice President and General Manager of AT&T Consumer Interactive Services, where he designed and implemented AT&T's first consumer-oriented Internet service offering, and Managing Director for Northern & Eastern Europe.

Dan chairs the Seattle Alliance of Angels. He sits on the boards of the Technology Alliance, The Humane Society of Seattle and King County, Geospiza, and University of Washington Tech Transfer. He was previously chaired the board of Clearsight Systems and Neah Power Systems (NASDAQ: NPWS.PK), and was on the boards of SNAPin Software, eCommerce Industries, UUNET (NASDAQ: UUNT, until its acquisition by MFS), Open Port Technologies, Individual, Inc. (NASDAQ: INDV), General Magic (NASDAQ: GMGC), Web3000, and the Washington Software Association.

Dan is also an advisor to Ontela, Fyreball, Isotron, Perlego, Widemile, Zero Crossing Engineering, and Zoodango.

Dan has a B.A. in Biology from Brandeis University and a Ph.D in Biophysics from University of California, San Diego. He holds several patents in communications and Internet technologies.

Special guest

Mr. Todd Tessier
Vice President - Venture Investments
BC Renaissance Capital Fund

Todd Tessier and his colleagues with the Investment Capital Branch at the Ministry are responsible for attracting venture capital to the province of British Columbia and providing access to early stage capital for innovative companies from B.C. The branch is currently the lead Ministry contact for the Life Sciences and Clean Technology sectors. He plays an active role in the development of risk capital policy and currently sits as an advisor on the Premier's Technology Council in the area of venture capital and policy.

Previously he was the Senior Manager, Private Capital Markets with the Marketing, Trade and Investment division where he was responsible for the implementation of venture capital programs and the development of legislative programs that encourage economic development for the technology sector. Recently, Mr. Tessier was involved in modifications to the Small Business Venture Capital Act, including the creation of the Equity Capital Program, which provides tax credits for start-up companies.

These pivotal amendments, introduced in 2004, led to a 600 per cent increase in program activity and the establishment of four new managed venture capital funds. In 2005, he was the Vice President, Private Capital Markets at Leading Edge British Columbia where he worked as an advisor on investment attraction for technology companies, helping to create a cross-border toolkit and create synergies between program delivery and promotion.

This past year, Mr. Tessier led the establishment of the BC Renaissance Capital Fund, a Crown Corporation fund that is placing up to $90 million in top-tier venture capital fund managers who are focused on the information technology, clean technology and life science sectors.

Mr. Tessier obtained his Bachelor of Commerce degree from the University of Saskatchewan in 1984. He then completed both of his professional accounting designations with the Auditor General of Saskatchewan before joining Cooper and Lybrand in Vancouver. In 1993, he was hired as Portfolio Manager responsible for venture capital program delivery.

ANGELS IN BRITISH COLUMBIA: PRACTICE, POLICY AND PERSPECTIVES*

THIS IS A PRELIMINARY VERSION OF A HARVARD CASE STUDY

THIS VERSION WAS PREPARED SPECIALLY FOR THE QUEBEC CITY CONFERENCE ON OCTOBER 25TH 2010

DO NOT QUOTE AND DO NOT CIRCULATE BEYOND THE CONFERENCE

"The only way this part of the world will grow is through the angel investments.
There is no other way."
- [Angel Investor #1], Prominent BC Angel Investor -

Todd Tessier, the Executive Director of the Investment Capital Branch within the Ministry of Small Business, Technology and Economic Development (British Columbia, Canada), couldn't help but being a little bit distracted. Spectacular scenery was unfolding around him as the seaplane was lifting over the city of Vancouver, with snow-capped mountains in the north, the Fraser valley in the east, the gulf islands in the west, and the blue waters of the Georgia Straits to the south. Todd's responsibilities of bridging the world of provincial politics in Victoria, the capital of British Columbia, with the world of entrepreneurial finance, much of which was happening in the greater Vancouver area, frequently required him to take the half hour seaplane flight between these two cities. As the plane gained height he focused his mind back onto the big questions. Todd had overseen the development of a unique tax credit policy that supported not only the local venture capital industry, but also a burgeoning angel investment scene. While the program initially proved to be very popular, the global recession made investors increasingly skeptical of investing in technology start-ups. The program was up for Treasury Board review in Victoria and Todd had been asked to propose changes. He felt the pressure. There were as many opinions on what to change, as there were trees along the beautiful Pacific Northwest coastline. The key, of course, was to see the wood for the trees.

The Economy of British Columbia

British Columbia (BC henceforth) had a population of 4.4M people, approximately 13% of the Canadian population. It was the third most populous province in Canada after Ontario and Quebec, and the fourth largest economy also after Alberta. GDP per capita was $45,150 in 2008.[1] Like most Canadian provinces, BC was hit by the 2008-2009 recession, with the economy declining by 0.3% in

* This case was prepared by MBA candidate Ilkin Ilyaszade and Professor Thomas Hellmann from the Sauder School of Business, University of British Columbia. The authors would like to thank Gilles Duruflé, Steve Hnatiuk, Paul Lee, Thealzel Lee, Josh Lerner, Robin Louis, Clint Megaffin and Todd Tessier, as well as all interviewees and survey respondents for their valuable support.

2008 and 2.3% in 2009.[2] For much of the late 19th and early 20th Century the BC economy was largely reliant on primary resource industries such as forestry, fishing, and mining. By 2010 the importance of the resource sector had diminished, though forestry and mining remained important sources of employment in rural regions of the province, directly providing 5.5% of the province's GDP. Construction, retail and services were increasingly dominating the local economy. The US was the province's largest trading partner, although East Asian economies also became increasingly important.[3] The 2010 Winter Olympic Games in Vancouver and Whistler brought global attention to the province, boosting the already large tourism sector. Vancouver was the third-largest feature film location in North America and had been nicknamed 'Hollywood North'. Vancouver also regularly ranked in the top five globally in 'Quality of Life' surveys.

BC's economic development relied heavily on the creation of new small businesses and expansion of existing ventures. In 2007 there were about 360K small and medium size enterprises (SMEs) in BC, out of 2.4M SMEs in Canada.[4] They accounted for 98% of all businesses in the province and provided 93% of the employment opportunities in technology sectors. Over 99% of all SMEs had less than 100 employees. Small businesses in BC with fewer than fifty employees employed around 1M individuals in 2004, representing nearly 60% of all private-sector employment in the province. 17% of Canadian SMEs could be defined as high-growth. They were responsible for nearly 55% of the 1.8M net new jobs created in the country between 1985 and 1999. BC's SMEs were particularly young, 14% of the province's SMEs being less than 3 years old, compared with 11% for the national average. BC's high technology sector employed over 81K people in 2007, generating 5.9% of BC's economic output. The technology sectors included new media, biotechnology, cleantech, medical devices, engineering, electronics, advanced manufacturing and information & communications technologies, contributing over $9.3 billion to the province's GDP in 2007.

An early success story was MacDonald, Dettwiler and Associates Ltd. (MDA). Incorporated in 1969 it became a global leader in information system solutions for the aerospace industry.[5] In the late 1980s, the basement of a home in Burnaby was the development base for 'Test Drive', a revolutionary video game from Distinctive Software.[6] The game evolved into the franchise game 'Need for Speed' bought by Electronic Arts, a leading video game producer.[7] The printing industry was changed in the early 1990s by Platesetter, a computer-to-plate machine, developed by Creo. The world's best selling business intelligence reporting tool, Crystal Reports, was developed in the early 1990s by Crystal Services, eventually acquired by SAP.[8] BC also had its share of successful biotech firms, including Angiotech and QLT.[9]

BC's Angel Investors

After using their own funds (and possibly those of their family and friends) entrepreneurs requiring equity capital typically turn to angel investors and/or venture capital firms.[10] See Exhibit 1 for generic overview of the fundraising process. According to Wikipedia "An angel investor or angel (also known as a business angel or informal investor) is an affluent individual who provides capital for a business start-up, usually in exchange for convertible debt or ownership equity." The fundamental difference between angels and venture capitalists is that angels invest their own money, whereas venture capitalists manage funds on behalf of a set of limited partners, mostly institutional investors.

The category of angel investors includes a large variety of types, some investing only in personal acquaintances, others investing in strangers; some investing small amounts, others investing large fortunes; some spending little time, others investing quasi full time; some investing on their own, others investing as part of angel groups. One way of categorizing angel investors was by the amount they invested, ranging from "smaller" angels (sometimes called checkbook angels), investing $10K or less, to so-called "super angels" investing millions of dollars.

Obtaining information on angel investing is challenging because no systematic data is being collected on this part of the financial system. In addition to numerous interviews, the authors of this case study organized a survey of BC angels.[11] The survey focused on angels investing in high technology start-ups, ignoring other angels that invest primarily in real estate or low tech businesses. 95% of respondents were male, the average age was 53, with a range from 31 to 73 years. Exhibit 2 summarizes some of the base findings. Panel A describes the angels' professional experiences while Panel B reports on their investment preferences.

Most angel investors considered making a financial return very important. Some noted that they were not satisfied with the returns to investing in stocks, bonds or real estate and therefore had shifted a small part of their portfolio into angel investments. Apart from the financial motivation, angels also emphasized the importance of remaining involved with their industry, and helping the next generation of entrepreneurs. Upon selling his company in 2004, [Angel Investor #2] reinvested back into the industry with the motivation to make more money. [Angel Investor #3] explained "I was always interested in business and made my first angel investment when I was in university". For [Angel Investor #4] it was the "high risk – high perceived return that motivated me to become an angel investor". [Angel Investor #1] started angel investing when he invested in a friend's start-up.

There was no single approach to finding and evaluating companies. [Angel Investor #3] noted that the process was more personal: "I evaluate start-ups on a case by case basis. Most of the time it is about the people: are they credible, etc...? If I like the people, then I ask business questions. I do not care about business issues at first." [Angel Investor #2] found that co-investing with the venture capital firms allowed him to benefit from their deal flow and due diligence. In the BC Angel survey, almost all angels reported checking the references of the entrepreneur, 80% emphasized consulting with other angels, and 52% reported to normally consult with customers, suppliers or competitors.

Beyond financing, the extent to which angels got involved with their companies varied considerably. 18% of respondents said they never sat on the board of directors, 47% did so for less than half their investments, and only 8% always did so. In terms of value-adding, 84% of angels reported provided business advice and mentoring and 62% introduced the company to their network of contacts. 43% provided fundraising expertise, 34% market development expertise and 30% product development expertise. Super angels could have larger concentrated ownership stakes that would increase their influence. [Angel Investor # 6], a super angel and former CEO of one of BC's most successful companies, commented that "the issue with small investments is that angels do not get power to make changes in the company they invest. For example, if a founding CEO is running down the company and you need to replace him, you need to have substantial investment in the company to do so."

Some observers of angel investing in Canada and the US suggested that Canadian angels were somewhat less sophisticated than in the USA. One local response had been the establishment of several angel networks. By 2010, there were several angel networks in the Vancouver area, and some efforts to introduce networks in the rest of the province. Each network had its distinct approach, yet all aimed to bring angels together to share knowledge. Respondents of the BC Angel Survey reported several benefits of attendance: 51% enjoyed getting access to deals, 49% taking advantage of other angels' expertise, 38% to pool resources by co-investing. In addition to organizing regular events where pre-selected start-up teams would present their "pitches", the leaders of these networks frequently cooperated in organizing workshops for angels, covering topics such as how to structure deals or how to plan exits.

There were informal contacts between the Vancouver-based angel networks, and some of the US-based angel networks. [Angel Investor #7] commented on the close links with the Bellingham Angel group (Bellingham, WA, is located just south of the border, one hour drive from Vancouver, BC): "Up to one-third of their 2009 investments were in BC-based companies. When talking about syndicated deals, it's interesting to note who leads the investment deal – e.g. Vancouver angels would only invest in a Bellingham deal if a Bellingham angel lead, and vice versa."

One off-spring from the organized angel networks was the creation of so-called "angel funds." For example, Mike Volker, founder of the VANTEC network also launched the WUTIF fund, which allowed smaller angels to passively invest alongside some larger more active lead angels.[12] Angel funds introduced portfolio concepts commonly associated with venture capital funds into angel investing. Instead of concentrating their investments in a handful of companies, angel investors would diversify their investment portfolio by investing in an angel fund that made multiple investments on their behalf. Unlike venture capital funds, however, these funds had no (or low) management fees and carried interest. They had low overhead costs and their promoters often provided a large part of the capital. Angel funds blurred the line between angel and venture capital investing, since they were owned and managed by wealthy private individuals ('angels'), yet they involved delegation of investment decisions ('other people's money').

In addition to the organized angel networks, many angel investors emphasized the importance of their informal networks. [Angel Investor #8] noted that he only considered investing in a start-up if it had been referred to him by other angel investors that he considered savvy and experienced. [Angel Investor #6] said that he relied mostly on his professional contacts from his previous start-up, notably his former employees.

Angels and Venture Capitalists

While angel investors typically provided seed investment that would help entrepreneurs to start up, they rarely could finance start-ups all the way to exit. Their companies therefore often had to seek venture capital funding at some later stages. Venture capital investors generally limited themselves to a small number of high growth potential companies, mostly in the technology sector. Exhibit 3 shows the amount of investment in Canadian venture capital-backed companies. Since 1996, BC had accounted for approximately 13% of all Canadian venture capital investments. In the aftermath of the financial crisis of 2008, the venture capital industry had come under increased scrutiny worldwide. Some observers argued that the 'industry was broken', noting that over a 5-10 year horizon it had generated too few success stories and low returns while spending excessive management fees. One report suggested that the US venture capital industry would have to shrink to half its size.[13] The Canadian VC market was not immune from these criticisms. Between 2007 and

2009 the amount of investments had declined by 49%. An open question was to what extent angel investor might be able to fill the gap that was left after the retrenchment of venture capitalists.

Angels and venture capitalists behaved differently in many respects. Angels tended to invested smaller amounts, invested at earlier stages, required less formalism, etc., although exceptions applied to each of these generalizations. [VC # 2] who had been an active angel investor before starting a VC fund explained the differences in investment strategies employed by angels and VCs as follows: “When you invest your own money you tend to make quicker decisions, but as an institutional investor, you need to go through many procedures such as due diligence and documentation. Nowadays, Canadian VCs also focus mostly on the risk factor”. [Angel investor #6] further commented that “VCs are careful because as fund managers, when they invest other people’s money in a company which might close down in 2 years, they will have to write the money off and face their limited partners. Angel investors do not have the same pressure because most of the time they invest their own money.”

The relationship between venture capitalists and angel investors was sometimes described as a cautious cohabitation based on desired goals. Some angels argued that having angels helped companies raise venture capital funding. [Angel Investor #3] explained, “When angels invest that brings credibility to company, making it easier for venture capitalists to invest.” However, there were also many challenges. One angel investor thought that the “relationships between venture capitalists and angels were horrible.” Many angels argued that usually they had prior experience running businesses, and expertise within the company’s sector. This gave them sometimes an advantage over venture capital firms who they thought did not always have partners with the relevant operational experience. They noted that, unlike in Silicon Valley were many venture capitalists were previous entrepreneurs, Canadian venture capital firms were mostly run by former bankers.

The most contentious issue was the valuation of follow-on rounds. Having invested at an early and very risky stage, angel investors were often frustrated that they lost influence at later stages, particularly when new investors dominated the follow-on rounds and offered lower valuations than hoped for by the early round angels. [Angel Investor #1] noted that “I invest relatively little money in the company and thus I have less influence than venture capitalists on the company affairs, structure and corporate governance. My investments have to align with the interests of venture capitalists who will have more control over the company.” In addition to the issues of valuation and control, angels and venture capitalists often disagreed on the choice of securities. Venture capitalists almost always asked for preferred securities, whereas angel investors often held common equity. Even when they held preferred securities, they might be forced to convert them due to so-called pay-to-play clauses.[14] This was particularly a problem for smaller angels, super-angels sometimes found it easier to work with the venture capitalists.

Looking at it from the other side, VCs often complained that angel investors paid too much in the early rounds, causing the entrepreneur to have unrealistic expectations and complicating subsequent financing rounds. As [VC #1] put it “angels tend to overvalue the deals and when they come to us after some time and ask us to pay for the overvalued deal, it becomes difficult because once we do syndicated deals there are other guys who will not be willing to overpay. Therefore, we actually ask angels to run by us their early stage deals, so that we can anticipate problems for subsequent VC investments.”

While the frictions between angels and venture capitalists were universal, some observers believed that relations in BC were comparatively better than elsewhere. [Angel investor #9] noted that “BC angels were mostly successful technology entrepreneurs who gained the VCs respect due to their deep industry expertise and contacts.” He contrasted this with Alberta, “where many angels had made their fortunes in the oil and gas industry, but didn’t have the same deep understanding of high tech start-ups.” One interesting experiment came from “Yaletown Venture Partners”, a Vancouver-based venture capital firm that explicitly invited cooperation from angel investors. The firm had attracted several well-known angels as special limited partners. They not only invested in Yaletown’s funds (partly using the EBC program described below), but also shared their contacts and expertise.

BC’s Equity Capital Program

Historical origins

In 1982 the Quebec Federation of Labour convinced the Quebec provincial government to create so-called Labour Sponsored Venture Capital Corporations (LSVCC). These venture capital funds were sponsored by labour unions, with the primary objective of investing in local SMEs to create and maintain jobs. Private individuals, commonly referred to as retail investors, would receive tax credits when investing in LSVCC funds. In 1988 legislation was passed that enabled the federal government to support the creation of labor-sponsored funds in any province by sharing the tax credit burden between the federal and provincial governments. LSVCCs began to spread everywhere in Canada except Alberta and New Foundland. In the mid-2000s tax changes and poor returns reduced the popularity of LSVCCs.

The labor sponsored venture capital program generated considerable controversy. Proponents of the program argued that it helped to develop the Canadian venture capital market, and supported the financing of innovative companies, including Research in Motion (RIM), makers of the popular Blackberry smart phone. Critics of the program emphasized the high cost to the government and the overall poor performance of the LSVCC and their companies. There was also a belief that the government-sponsored LSVCC had crowded out private independent venture capital.

Program architecture

In British Columbia the Ministry of Small Business and Economic Development administers all of the equity capital programs. According to their website these “programs encourage investors to make equity capital investments in British Columbia small businesses that will enhance and diversify the provincial economy. The government recognizes that creating new small businesses and expanding existing ones will contribute to a healthy economy. These programs give small business continuous access to early-stage venture capital to help them develop and expand.”

There were four main programs.[15] The first concerned so-called Employee Venture Capital Corporations (EVCCs), BC’s version of Labor sponsored funds. This was the only program that involved the participation of the federal government. All other programs were purely financed by the provincial government. The second program concerned so-called Retail Venture Capital Corporations (“Retail VCCs”) which were similar to LSVCCs in many respects. The third program concerned a different type of VCC fund not based on retail investors. To distinguish them from Retail

VCCs, we call them "Angel VCCs", although this term was not part of the official language. The fourth was a program, called the EBC program. It did not involve any fund-based investing but instead provided tax credits directly to individuals who invested in eligible companies. Exhibit 4 outlines the company eligibility criteria. EVCCs and Retail VCCs were operated by venture capital firms, whereas investments under the Angel VCC and EBC program were made by angel investors. All these programs gave a 30% tax credit to investors that were residents of BC. Exhibit 5 illustrates the structure of VCC and EBC programs. Exhibit 6 compares the main rules across the four programs.

The EVCC program dated back to 1985 and emulated the standard Canadian labor-sponsored venture capital model. While all other programs were purely provincial programs, this program was shared between the provincial and federal government. Retail investors received a 15% federal tax credit on a maximum $5,000 annual investment, with the B.C, provincial government offering an additional 15% tax credit. In 2010 only one venture capital firm, GrowthWorks, was operating under this program. As [Angel Investor #9] put it: "In BC, GrowthWorks was effectively granted monopoly access to the provincial tax credits and this exclusive access was in place for a number of years. When other funds were allowed to enter the market, GrowthWorks was so well established that the new funds were not well positioned to market their funds and never reached a sustainable size."

The passage of the Small Business Venture Capital Act (SBVCA) in 1985 created a venture capital program that was independent of the federal government. One part of the program was the licensing of a small number of Retail VCC funds. These emulated some aspects of the labor-sponsored venture capital model (namely giving tax credits to retail investors), but also deviated in some important respects. The entire 30% tax credit was provided by the provincial government. Retail investors were limited to investing $5K in EVCC funds, but they could invest up to $200K in VCC funds. In 2010 there were four Retail VCC funds: the BC Advantage Funds (with the Advantage Growth Fund and the Advantage Venture Fund); BC Discovery Fund; and the Pender Growth Fund. The investment firms that managed these funds could separately operate unrelated financial funds.

While the Retail VCC funds were a relatively minor variation of the LSVCC model, the SBVCA also allow for a novel type of tax-advantaged VCC funds. Technically this type of fund was a dedicated investment vehicle (with a minimum capital of $25K) to be used for investing in eligible business. While any BC resident could invest in Retail VCCs, only "qualified" investors could invest in these funds. To be qualified, an individual either had to be acquainted with an executive of the company (either through family or through a professional work relationship), or else be an 'accredited' investor.[16] These alternative VCC funds quickly became the preferred investment vehicle for BC angel investors, hence our label of Angel VCCs. By 2010 there were over 100 such Angel VCCs. Many of these had been created to invest in a single company, but others invested in multiple companies.

The SBVCA was revised in 2003 when the provincial government introduced a 'direct' tax credit program where individuals could invest in an eligible business corporation (EBC) without first having to create a VCC investment vehicle. Under this program it was the EBC that had to register with the program, significantly reducing the investors' paperwork. In the mid-2000s the Ministry also introduced an electronic submission system further simplifying the administrative process. To be eligible, the EBC had to have equity capital of at least $25K prior to registration. The maximum equity capital that the EBC could raise was $5M. See also Exhibit 6.

[Angel Investor # 1] preferred the EBC program: "I could invest directly into the company and this made the process easier. I used to invest through a designated venture capital fund, which required getting a law firm involved, resulting in legal fees. Now thinking back, I would never do that again. The direct investment method is one of the best programs available." 71.4% of the BC Angel Survey respondents preferred the direct EBC model over the indirect VCC model. After the introduction of the EBC program, the use Angel VCCs for making a single investment essentially disappeared. The main users of Angel VCCs became the super angels, as well as the emerging 'angel funds.'

Budgets

Exhibit 7 shows the total amount of funds raised under the various tax credit programs. The Labor-sponsored program had a budget of its own that allowed GrowthWorks Working Opportunity Fund to raise up to $55M per year, resulting in a maximum of $8.25M of tax credits for the province. In recent year the Working Opportunity Fund had been unable to raise its allocated amount. The unused tax credits could not be rolled over to another year, or be reallocated to another program.

The VCC and EBC programs were administered jointly under one annual budget of $30M tax credits (since 2008), thus enabling up to $100M of equity investments each year. While there was no clear division between the EBC and Angel VCC program, the Retail VCCs had guaranteed access to $43M of investments, or $12.9M of tax credits. Any unused funds could be reallocated. In addition to dividing the overall budget between angels and Retail VCCs s, political demands required the Ministry to distinguish different budgets that catered to specific interests. In the fiscal year 2009, for example, there were four distinct budgets.[17] The Community budget ($3m tax credits) reserved funds for eligible investments outside of the Greater Vancouver Regional District or Capital Regional District, catering mostly to the geographically vast but much less populated interior parts of the province. The New Media budget ($5m tax credits) was for investments relating to the commercial exploitation of interactive digital media. The Cleantech budget ($7.5m tax credits) was reserved for investments that helped reduce BC's carbon footprint. Finally, the Equity Capital Budget ($14.5m tax credits) catered to all remaining companies that satisfied the eligibility criteria.

While the creation of these special budgets had a variety of political origins, some observers doubted their usefulness. One angel investor questioned the wisdom of having several targeted budgets, saying "Let the market decide". In his book "Boulevard of Broken Dreams", Josh Lerner of the Harvard Business School argued that it was tempting to add restrictions and over-engineer the programs. Although it was expected that groups receiving the subsidies would continue to target the local region for investments, he argued that governments should avoid to further micromanage the entrepreneurial process.

After the global financial crises in the fall of 2008, the overall budget of $100M was no longer fully utilized. In the preceding years, however, there had been excess demand for the tax credits. After some time in the year, tax credits were no longer available. In 2006, the first year that this happened, investors were caught by surprise. It left a bitter taste with some investors, who argued that the tax credits should always be available, and who wanted to see a reallocation of funds from other budgets. In the following years many investors anticipated the budget closures, submitting their claims early in the year. Naturally this meant that the budget ran out even earlier. In 2008, the Equity Capital Budget run out in early March, the New Media in mid-April and the Community Budget in mid-August, the newly created Cleantech budget never ran out.

In addition to the tax credit programs, the BC government launched the BC Renaissance Capital Fund (BCRCF) in 2008. This was a fund of funds that was wholly owned by the BC Immigrant Investment Fund. The purpose of the BCRCF was to attract successful venture capital managers and their capital to BC, in order to further develop innovative technology companies in the Province. The BCRCF was created for the purposes of pursuing investment in four key technology sectors: digital media, information technology, life sciences and clean technology. By 2010 the BCRCF had committed $90M to seven venture capital fund managers based in the United States and Canada, who collectively had approximately $2B in capital under management for investment.[18]

Program rules

In Canada (except Quebec) all personal income taxes were collected by a federal agency called Revenue Canada, which acted as a tax collection agent both for the federal and provincial governments. Investors that received a tax credit could use it to offset their personal incomes taxes. However, if a tax credit exceeded the individual's tax liability, the government would actually send the individual a check for the difference.[19] The maximum tax credit that any individual investor could claim in one particular year was $60K which equated to $200K of equity investments.

Investors were required to make equity or equity-like investments. Preferred convertible shares were acceptable under the program, but simple loans were not admissible. No individual investor was allowed to control more than 50% of the voting shares. Investors in labor sponsored funds were required to maintain their investments for 8 years. The holding requirement for the VCC and EBC program was set to 5 years, although for the Retail VCCs s the clock would only start from the time that funds were invested. See Exhibit 6. If investors sold their investments prior to the end of the holding period, they were required to either pay back their tax credits, or reinvest an equal amount within six months.[20] Repayment applied only to the original investment amount, not any capital gains. It was also pro-rated, so that an investor who divested after 3 years would only need to repay 40% of the original credit. The holding period requirement posed a difficulty to angels who wanted to exit their investments in less than 5 years. Basil Peters, a prominent BC entrepreneur, venture capitalist and angel investor, had written an entire book about the virtues of early exits.[21] Others had their doubts. [Angel investor #9] noted "It is not realistic to invest in early stage technology companies and expect an exit in less than 5 years. Exiting too early has been one of the major causes of poor returns for the VC industry and for angels in Canada."

The company eligibility criteria were virtually identical across all programs (see Exhibit 4). Companies were considered eligible if they had less than one hundred employees (including affiliates), paid at least 75% of wages to BC-based employees, and were substantially engaged in authorized activities. The list of forbidden activities disqualifying companies from eligibility included financial activities (lending, acquiring securities), resource extraction (mining, forestry) and real estate investing.

Program evaluation

The Ministry of Small Business, Technology and Economic Development regularly evaluated various aspects of program performance. A 2005 study focused mostly on fundraising patterns, estimated that angels accounted for 60% to 80% percent of early stage financing.[22] The study also estimated that the tax credits increased the total amount of angel investments by 50%-70%.

Probably the most comprehensive evaluation report was to be released in October of 2010. It analyzed the performance of all the companies in the program for the period 2001-2008.[23] The study examined 517 companies, receiving a total of $65M in federal and $191M in provincial tax credits. 65% were funded only by angel investors, 16% only by retail investors and 19% by both retail and angel investors.

The report compared total tax credits with the estimated total taxes generated by the companies in the program. It considered both federal and provincial taxes, looking at sales taxes, employee income taxes and corporate taxes. For every $1 of provincial tax credit, the BC government collected on average $1.98 in provincial taxes. For every dollar of Canadian (i.e., combined provincial and federal) tax credit, the Canadian government collected $2.92. See Exhibit 8 for additional details.

On average companies in the program created 2.43 new jobs per year. Companies backed by retail venture capital firms created 5.26 new jobs, companies backed only by angel investors created 1.08 jobs. However, the types of companies in these two groups were quite different, as retail-backed companies were larger, more mature, requiring more equity capital and more tax credits. If one compared job creation per $10K of tax credits, retail-backed companies created 0.3 new jobs whereas angel-backed companies created 2.15 new jobs.[24]

For every $1 of investment benefiting from the tax credits, companies were able to raise an additional $3.76 of outside equity investment, plus $1.15 of debt. However, additional fundraising was considerably lower outside of the urban centers of Vancouver and Victoria: in the rest of BC companies only raised an additional $0.84 of outside equity investment, plus $1.19 of debt.

In terms of exit rates, retail-backed companies had 6% IPOs and 20% acquisitions, roughly matching national averages. Angel-backed companies, however, had much lower exit rates: 1% IPOs and 3% acquisitions. While this low exit performance was partly explained by the relatively young age of these companies, many BC angels had been disappointed by the lack of successful exits.

Based on publicly available returns data from the retail funds, the 5 year gross returns (Jan 2005 – Dec 2009) ranged from -57.2% to -11.1%. The Canadian Venture Capital Association (CVCA) benchmark generated a -19.3% return for the same period.[25] When calculating the net returns (net of tax credits and broker fees), the returns ranged from -24.24% to 19.58%. Measuring the returns to angel investors remained challenging, due to the fact that angels were not required to report returns. The BC Angel Survey provided some preliminary data, shown in Exhibit 9. Given its self-reported nature, and the possibility that angels with poor performance might be less likely to report, caution had to be applied when interpreting the data.

Direction of Change

In the fall of 2010 the program was up for evaluation. Todd needed to consider what changes he should propose. Since 2003 investments under the EBC and Angel VCC program had increased from $39.6M to $70.7M, whereas investments through retail vehicles (Retail VCCs and EVCCs) had fallen from $90.7M to $19.4M. Shrinking of retail funds happened in all Canadian provinces except

Quebec, but BC was the only one where this was compensated by business angel investments. Todd also believed that BC had a larger number of tech savvy angels who were working more closely with venture capitalists than in the other province. The question was what implications could be drawn from this? He was well aware that taking the lens of a policy maker was different from the perspective of the investors and entrepreneurs with whom he regularly met. In order to justify program changes, he not only had to explain why these changes would help the business community, he also had to justify their public policy rationale. What was the underlying market failure? Why should the government intervene? In addition he had to consider the pragmatic challenge of convincing politicians who had their own agendas. Todd reviewed the many alternative directions that different stakeholders were arguing for. There were four broad options to change the program

Option 1: Tweak

Most business people fundamentally believed that the current angel program worked fine, but that a few tweaks could enhance its value. There were many ideas on what program details should be modified. One pet peeve among investors was the holding period requirement.[26] Some investors also wanted to increase the investment limit of $200K. 12% of respondent indicated they would invest more with a $300K cap, although 60% indicated that they never reached the current cap of $200K in the first place. One of the super angels argued that the program was irrelevant for him, since he could only claim tax credits against a tiny fraction of his investment.

There was also some discussion about the geographic scope of the program. Would it be possible to expand the definition of eligible investors, allowing investors from Alberta, possibly all of Canada, or even the U.S. to receive tax credits when investing in BC companies? Could the federal government be convinced to roll out an angel tax credit nationwide? There was also the possibility of cooperation among the western provinces of BC, Alberta and Saskatchewan. Each province had launched initiatives in this area, but there was no reciprocity or coordination across among initiatives.

Option 2: Grow

Within the investment community there was a shared view that more tax credits would lead to more investments. Most therefore wanted a larger tax credit budget. The total tax credit available had proven to be insufficient in those years where investment demand was high. Pointing to the decline in fundraising from retail funds, some angels argued that it would be easy to grow the angel tax credits by taking away from the retail funds' budgetary allocation. Others suggested an increase of both angel and retail venture capital budgets. They were hoping that the total budget be doubled, or even better, have no cap at all.

There were also those who favored raising the tax credit rate above 30%, especially in years where the budget wasn't fully used. Angel investors obviously liked the idea of higher rates, but policy makers also considered the likely impact on aggregate investments. The BC Angel Survey suggested that there were two types of angels: those who said that they wouldn't adjust their investment amounts at all (less than 25% of respondents), and those who said they would adjust them substantially (over 60%). Exhibit 10 provides the details of how changes in the tax credits would affect the investment behavior. For those angels whose investments increased because of the tax credits there was a question of where they took the additional money from. Several angels explained that the trade-off was between more angel investments versus more investments in stock and bonds. [Angel Investor #1] also argued as follows "Tax credits reduce the risk for angel investors, and allow them to invest more. Therefore they can shift a greater part of their investment portfolio towards these tax-advantaged investments." The survey also suggested that in the absence of the tax credit, 24% would seek more angel investments in other Canadian provinces and 40% in the US.

Growing the program was popular for people in the industry, but there were sceptics among policy makers, journalists and academics who believed that angel programs could be unnecessary or wasteful. In his book, Professor Josh Lerner argued that policy makers must be careful when determining the size of the venture initiatives. If the funds are too small then program will do little to improve the environment. If programs are too large, they can create an oversupply of capital relative to opportunities, thus disrupting healthy market dynamics. Inflated expectations could also backfire and hinder reasonable future government action. Professor Scott A. Shane also argued that policy makers needed tread carefully. He argued that there had been no convincing evidence of market failure, and policy makers needed to ensure that they were not merely intervening in response to lobbying from angels who simply wanted a subsidy.[27]

Option 3: Amalgamate

The origin of the angel tax credit was closely linked to the retail venture capital tax credits, yet the programs differed in several important respects. The angel tax credit program was openly accessible and allocated tax credits on a first-come-first-serve basis, while the retail tax credit programs were based on exclusive licenses that had been awarded to specific fund managers. There were also many technical differences between the programs - see Exhibit 6. Many observers believed that a reform of the retail venture capital model was inevitable, given the disappointing returns and the dramatic decline in fundraising.

Any reform of the retail tax credit program could also impact the angel tax credit program. One simple suggestion was to amalgamate the two programs, harmonizing the rules and eliminating the budgetary restrictions across the different program segments. Retail venture capitalists would have to compete with angels for funding and tax credits. Amalgamation of the two programs would probably imply the loss of the remaining federal tax credits that were received by the Working Opportunity Fund.

Option 4: Redesign

One could also rethink the fundamental approach taken by the BC program. One argument was that companies, not investors should be the recipients of the tax credits. Various reasons were mentioned for this: investors were already wealthy whereas entrepreneurs were poor and thus more deserving of tax credits; companies could make better use of the tax credits than investors, and ultimately it is the companies, not the investors who created jobs and economic value. The approach of focusing on companies had been taken by one of Canada's most popular tax credits, the Scientific Research and Experimental Development (SR&ED) Tax Incentive Program.[28]

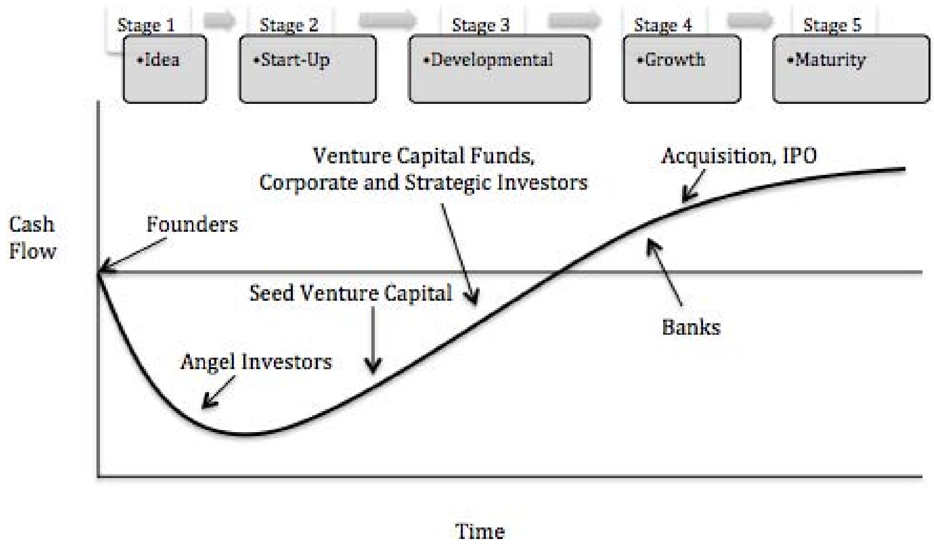
Another line of argument was that rewarding investments rather than success set the wrong incentives. Tax credits on investments facilitated risky investments, whereas a reduction in capital gains would focus investors to only place their funds into those companies with the highest chance of commercial success. Supporting this argument was a finding of the survey that 31% of respondents indicated that in the absence of capital gains taxes, they would make 30% more angel investments, and another 31% indicated that they would make 60% more angel investments - See Exhibit 10. Capital gains taxes in Canada were levied on half of the capital gains, taxing the at the marginal personal income tax rate. See Exhibit 11 for Federal and Provincial personal income tax rates.

There was also the possibility of looking further a field for alternative models of how to support angel investments. One intriguing concept was that of the co-investment fund. In New Zealand, for example, the Seed Co-investment Fund was a direct investment fund aimed at early stage businesses with strong potential for high growth.[29] The main objective of the Fund was to enhance the development of angel investors and angel networks, to stimulate investment into innovative start-up companies. The fund provided $40M of matched investment on a 1:1 basis. Investment occurred alongside selected private investor groups (“approved co-investors”), with the Fund acting as a direct investor on the same terms as the co-investment partner.[30]

Time to make a decision

The seaplane suddenly banked and started its decent into Victoria Harbor. Todd looked out of the window, admiring the quaint waterfront with the historic Empress hotel. Right next to it was another historic landmark building, the provincial parliament. It reminded him that the time had come to make a recommendation. Managing BCs venture capital programs wasn’t exactly an easy job, but at least the commute was worth it.

Exhibit 1: The evolution of company financing



Source: http://www.slideshare.net/deeturnbull/2009maybc-venture-capital-programs-1407067

Exhibit 2: Select Findings from the BC Angel Survey

Panel A

Years of professional experience

10 years or less	11-20 years	21-30 years	More than 30 years	Average	Maximum
7.4%	25.9%	43.2%	23.5%	25.4	50

Type of work experience

General Management	Sales and Marketing	Research & Development	Finance	Operations	Other
77.9%	41.9%	29.1%	53.5%	45.3%	17.4%

Years of entrepreneurial experience

10 years or less	11-15 years	16-20 years	21-30 years	More than 30 years	Average	Maximum
12.5%	41.3%	18.7%	21.3%	6.3%	16.4	40

Number of companies started

None	One	Two	Three to five	More than give	Average	Maximum
15.9%	28.1%	14.6%	28.1%	13.4%	3	20

Years of angel investing experience

5 years or less	6-10 years	11-15 years	More than 15 years	Average	Maximum
27.4%	50.0%	14.3%	8.3%	9.5	30

Panel B

At what stage do you prefer to make your first investment in the company?

Idea Concept	Product Development	Pre-launch Beta	Sales (<2 years)	Sales (>2 years)	All stages
21.0%	36.5%	44.8%	37.5%	10.4%	14.6%

In what sectors do you like to invest?

IT	New Media	Life Sciences	Clean Tech	Low Tech	Real Estate	Other
62.5%	32.3%	35.4%	65.6%	15.6%	19.8%	9.4%

How much do you typically expect to invest over the life of a company?

\$0-\$10K	\$10K-\$20K	\$20K-\$50K	\$50K-\$100K	\$100K-\$500K	>\$500K	Not disclosed
1.0%	13.5%	16.7%	37.5%	21.9%	4.2%	5.2%

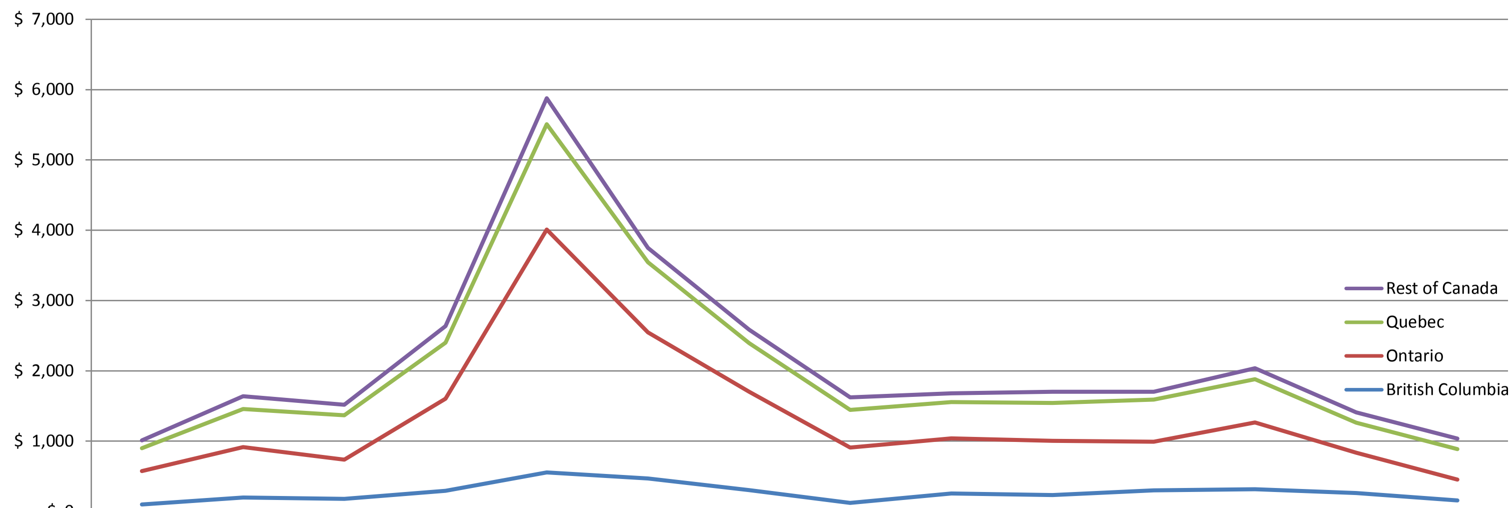
On average, how much do you typically expect to invest as an angel per year?

\$0-\$10K	\$10K-\$20K	\$20K-\$50K	\$50K-\$100K	\$100K-\$500K	>\$500K	Not disclosed
4.2%	11.6%	22.1%	27.4%	16.8%	7.4%	10.5%

On average, how many new investments do you plan to make every year?

One or less	Two	Three	Four or more	Average	Maximum
37.2%	43.6%	10.6%	8.5%	2.1	20

Exhibit 3: Venture capital investments into Canadian companies



	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Rest of Canada	$ 112	$ 183	$ 151	$ 237	$ 371	$ 203	$ 191	$ 178	$ 123	$ 156	$ 111	$ 158	$ 147	$ 150
Quebec	$ 325	$ 539	$ 631	$ 795	$ 1,498	$ 997	$ 691	$ 533	$ 517	$ 538	$ 599	$ 612	$ 428	$ 432
Ontario	$ 473	$ 718	$ 558	$ 1,312	$ 3,456	$ 2,081	$ 1,398	$ 788	$ 785	$ 771	$ 690	$ 951	$ 574	$ 298
British Columbia	$ 100	$ 198	$ 178	$ 292	$ 553	$ 467	$ 304	$ 122	$ 254	$ 234	$ 301	$ 316	$ 261	$ 156

Investments are denoted in million Canadian dollars.

Source: Canadian Venture Capital Association

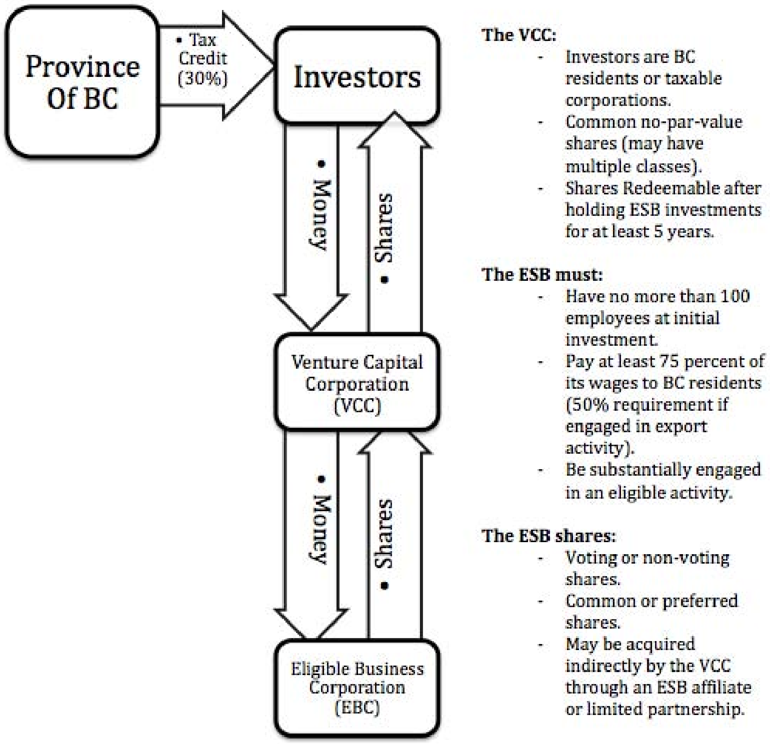
Exhibit 4: EBC Eligibility Requirements

A small business had to meet several requirements to qualify as an "eligible small business" under the program:

- The EBC had to be a corporation.
- The EBC had to be substantially engaged in British Columbia in one or more of the five qualifying activities:
    - **Manufacturing, processing or export of value-added goods produced in BC:** Producing, or putting goods or materials into marketable form by employees of the small business, from raw, unfinished or prepared goods or materials, by changing the form or content of those goods or materials into a finished product.
    - **Destination tourism.** To qualify under this activity, a business had to demonstrate that it did or would earn 50% or more of its gross revenues from tourists. A "tourist" was an individual who resided more than 80 km from the destination resort or attraction.
    - **Research and development of proprietary technology:** Research and development of proprietary technologies produced in BC, including services associated with marketing or exporting the technologies inside or outside the province.
    - **Development of interactive digital new media product:** A small business had to be substantially engaged in the development, within BC, of an interactive digital media product for commercial exploitation [with limitations].
    - **Community diversification outside of the Lower Mainland and the Capital Region.** A business located outside the Greater Vancouver Regional District and the Capital Regional District might have been engaged in an allowed activity if the business activity promoted economic diversification within the region.
- Employment. The EBC, together with any affiliates, could not have more than one hundred employees at the time of an initial investment by an investor under the program.
- Presence in BC The EBC had to pay 75% of its wages and salaries to employees who regularly reported to work at operations located in BC This rule was relaxed to 50% for businesses primarily engaged in the export of goods or services outside BC The EBC also had to maintain a permanent establishment in British Columbia and keep at least 80% of its assets in the province.

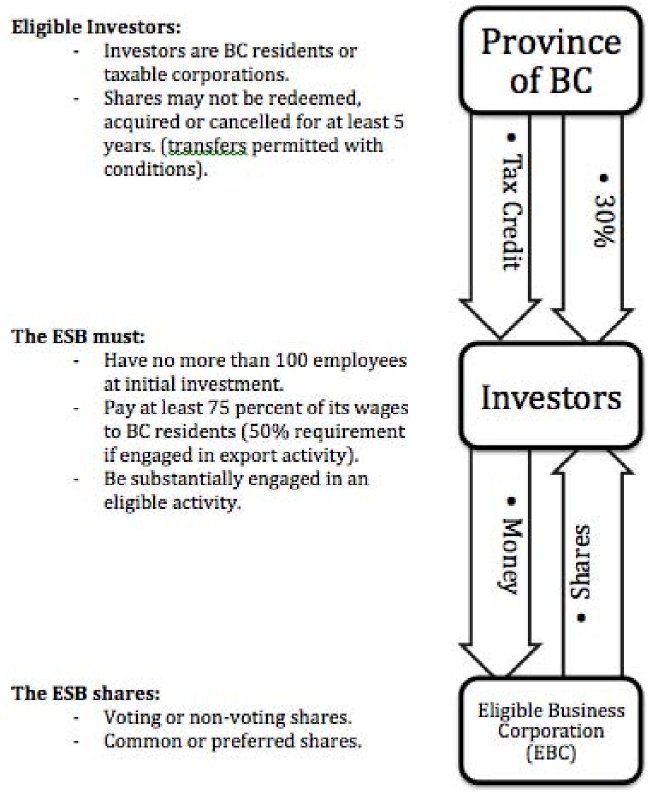
Source: BC Ministry of Small Business, Technology and Economic Development

Exhibit 5A: The VCC option[31]



Source: BC Ministry of Small Business, Technology and Economic Development

Exhibit 5B: The EBC option



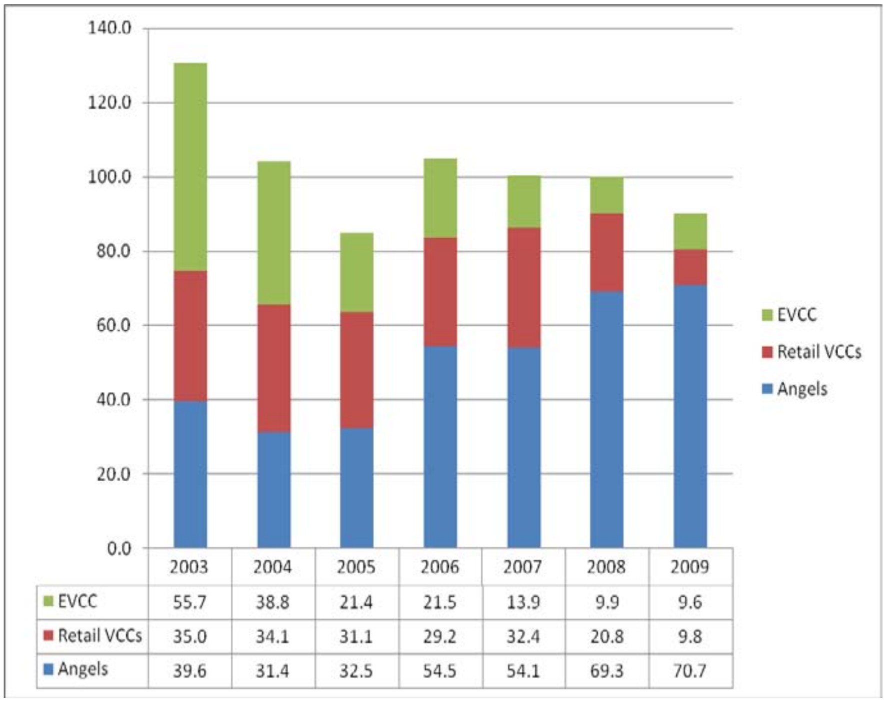
Source: BC Ministry of Small Business, Technology and Economic Development

Exhibit 6: Overview of BC Tax Credit Programs

	EVCC	**Retail VCC**	**Angel VCC**	**EBC**
Types of investors	Venture capital firms	Venture capital firms	Large angels and angel funds	Friends and families, Angels, VCs
Examples	WOF	BC Advantage	WUTIF	Aspreva
Tax credits	15% provincial, 15% federal	30% provincial	30% provincial	30% provincial
Budget (investments)	$55M	$43M	$57M (shared)	$57M (shared)
Maximum per investor	$5,000	$200,000	$200,000	$200,000
Maximum per company	$10M invested into portfolio company over 2 year period	$10M invested into portfolio company over 2 year period	$10M invested into portfolio company over 2 year period	$5M total lifetime
Pacing requirement	Invest 80% of funds raised within 4 years, 20% minimum per year	Tranche 1: 40% by end of year 2; Tranche 2: additional 40% by end of year 3	Tranche 1: 40% by end of year 2; Tranche 2: additional 40% by end of year 3	Receive tax credit after making investment
Holding requirement	8 years	5 years after completion of each tranche	5 years after completion of each tranche	5 years

Source: BC Ministry of Small Business, Technology and Economic Development

Exhibit 7: Funds raised under BC tax credit programs



	2003	2004	2005	2006	2007	2008	2009
EVCC	55.7	38.8	21.4	21.5	13.9	9.9	9.6
Retail VCCs	35.0	34.1	31.1	29.2	32.4	20.8	9.8
Angels	39.6	31.4	32.5	54.5	54.1	69.3	70.7

This graph shows the amount of funds raised that received tax credits. The angel category includes the amounts raised by Angel VCCs and the amounts claimed directly under the EBC program. All amounts are shown in million Canadian dollars.

Source: BC Ministry of Small Business, Technology and Economic Development

Exhibit 8: Total taxes paid and tax credits received by BC companies

Totals 2001-2008, in $M	All	Retail Portion (EVCC and Retail VCC)	Angel Portion (Angel VCC and EBC)
BC Taxes Paid	$379.57	$257.01	$122.55
Federal Taxes Paid	$368.04	$238.49	$129.55
Canadian Taxes Paid	$747.61	$495.50	$252.10
BC Tax Credits	$191.44	$104.73	$86.72
Federal Tax Credits	$64.81	$64.81	$0.00
Canadian Tax Credits	$256.26	$169.54	$86.72
BC Multiplier	1.98	2.45	1.41
Canadian Multiplier	2.92	2.92	2.91

The BC Multiplier is based on dividing total taxes received by the BC government by the total amount of tax credits paid out by the BC government. The Canadian Multiplier is based on dividing total taxes received by the federal and BC government by the total amount of tax credits paid out by the federal and BC government.

Source: Hellmann and Schure (2010).

Exhibit 9: Expected Returns of Angel Investments

	I don't know	I prefer not to disclose	Negative return	0% to 10%	10% to 20%	20% to 30%	> 30%
Estimated annual rate of return on portfolio	17.7%	19.8%	9.4%	13.5%	16.7%	11.5%	11.5%

Source: BC Angel Survey

Exhibit 10: Tax Credit and Investment Behaviour

	Same Amount	10% less	15% less	30% less	60% less	Not invest at all
If tax credit = 0% then I would invest	26.2%	1.2%	9.5%	27.4%	23.8%	11.9%
If tax credit = 15% then I would invest	24.7%	5.9%	11.8%	28.2%	15.3%	10.6%

	Same Amount	10% more	15% more	30% more	60% more
If tax credit = 45% then I would invest	18.6%	4.7%	12.8%	44.2%	17.4%
If capital gain taxes = 0, then I would invest	17.2%	6.9%	9.2%	33.3%	29.9%

Source: BC Angel Survey

Exhibit 11: Income tax rates for 2010

Federal income tax rate	income from	to		Provincial income tax rate	income from	to
15%	$0	$40,970		5.06%	$0	$35,859
22%	$40,970	$81,941		7.70%	$35,859	$71,719
26%	$81,941	$127,021		10.50%	$71,719	$82,342
29%	$127,021	$∞		12.29%	$82,342	$99,987
				14.70%	$99,987	$∞

Source: Canada Revenue Agency

[1] All dollar amounts refer to Canadian dollars. In August 2010 $1US was worth approximately $1.04CAN at the average exchange rate.
[2] Source: Statistics Canada, April 2009 Provincial Economic Accounts: http://www.statcan.gc.ca/daily-quotidien/100428/dq100428a-eng.htm
[3] Imports were dominated by the United States (41.8%), China (22.6%), Japan (9.6%), South Korea (4%) and Mexico (3%), while key export markets were the United States (53.3%), Japan (15.1%), China (6%), South Korea (5.9%) and Taiwan (1.8%).
[4] Statistics Canada defined small and medium sized enterprises (SME) as having less than 500 employees and less than $50M in annual revenues.
[5] http://en.wikipedia.org/wiki/MacDonald_Dettwiler
[6] Holliday, Brent. 'Innovation that Pays: BC Technology in the World.' 7 July 2010. http://www.bcbusinessonline.ca/bcb/business-sense/2010/07/07/bc-technology-world
[7] http://news.ea.com/news/ea/20091021005343/en
[8] Holliday, Brent. 'How to Grow Your Own', 6 January 2010. http://www.bcbusinessonline.ca/bcb/business-sense/2010/01/06/how-grow-your-own
[9] Holliday, Brent. 'Innovation that Pays: BC Technology in the World.' 7 July 2010. http://www.bcbusinessonline.ca/bcb/business-sense/2010/07/07/bc-technology-world
[10] While angel and venture capital financing constituted only a small part of the overall financing of SMEs in BC, it played a much larger role for the high-growth SMEs in knowledge-based industries. SMEs in BC relied primarily on a combination of traditional lending (61% of companies) and the personal savings of the business owners (54%). Just 4.3% of companies in 2007 reported as having accepted funding from individuals unrelated to the founder's family. Risk equity capital (i.e., angel and venture capital) were reported by about 1.6% of all SMEs.
[11] Thealzel Lee from Rocket Builders (http://www.rocketbuilders.com) greatly helped with the design and promotion of the survey.
[12] See http://www.wutif.ca/ and http://vantec.ca/
[13] "Right-sizing the U.S. venture capital industry" by Paul Kedrosky, Ewing Marion Kauffman Foundation, June 10, 2009
[14] A pay-to-play clause implies that if incumbent investors participate in the new round, they retain their preferred shares, but if they don't participate their shares are converted to common shares.
[15] Yet another program provided tax credits for employee share ownership. It was somewhat distinct and typically attracted less than $1M of investments per year.
[16] 83.1% of the BC Angel Survey respondents were accredited investors. Accreditation required that the individual had a net worth of at least $1M (excluding the value of their principal residence) or had earned at least $200K each year for the previous two years ($300K joined income if married) and had the expectation to make the same amount in the current year. The definition of accredited investors was very similar for Canada and the United States. Details available at *http://en.wikipedia.org/wiki/Accredited_investor and http://www.bcsc.bc.ca/privateplacements.asp?id=2004#accredited_investor*
[17] Venture Capital Programs Spring 2009. http://www.docstoc.com/docs/50972214/Venture-Capital-Programs-Spring-2009
[18] See http://www.bcrcf.ca/BCRCF/Pages/default.aspx
[19] Corporations could also make use of tax credits, although they could only use them to offset actual tax liabilities.
[20] http://www.tted.gov.bc.ca/MIT/SBIIO/VCP/VCC/Pages/TaxCredits.aspx
[21] "Early Exits" by Basil Peters, see http://www.basilpeters.com/
[22] Jim Brander, Ed Egan and Tony Boardman, 2005, "The Equity Capital Program in British Columbia: An assessment of capital availability, program efficiency, and policy" Report commissioned by Leading Edge British Columbia, April 2005
[23] Thomas Hellmann and Paul Schure, An Evaluation of the Venture Capital Program in British Columbia, Report prepared for the Ministry of Small Business, Technology and Economic Development, October 2010

[24] Similar patterns were also found when analyzing alternative performance metrics, such as companies' growth in sales, assets or wages. The study also compared job creation of companies in the program against a broad set of BC companies outside the program, finding that companies within the program clearly created more jobs.

[25] This benchmark is based on the returns of so-called captive funds, which is the CVCA's classification of labor-sponsored funds.

[26] 67% of survey respondents indicating they would invest more if the requirement were relaxed.

[27] Scott A. Shane, *Fool's Gold, The Truth Behind Angel Investing in America,* Oxford University Press, 2009

[28] http://www.cra-arc.gc.ca/txcrdt/sred-rsde/menu-eng.html

[29] http://www.nzvif.com/seed-co-investment-overview.html

[30] The Scottish Co-investment Fund (SCF) was another related example of a co-investment fund. http://www.scottish-enterprise.com/investment-opportunities/invest-scottish-business/invest-scottish-co-investment-fund.aspx.

[31] This model applied to both the Retail VCCs and Angel VCCs.

Panel 4

Tech transfer: new model or traditional VC financing?

Moderator: **Mr. Francis Carpenter**
Former CEO
European Investment Fund

Panellists:

Professor Graham Richards
Senior Non-Executive Director
IpGroup plc

Ms. Anne Glover
CEO
Amadeus Partners

Dr. Raphael Hofstein
President and CEO
MaRS Innovation

Table of content

Panel 4

10.1 Introduction

Broadly speaking, “technology transfer relates to the creation of wealth from the intellectual property generated by university and research centers”[1] . More precisely, this panel will focus on the financial dimension of this activity. The traditional way of looking at it is to consider technology transfer as part of a continuous chain which goes from R&D funding to late stage venture capital and public markets through all the stages of technology validation, company creation and exit. Tech transfer is often seen as a particularly difficult link in this chain, often called “the valley of death” when commercial, “market-pull” financing has to relay non-dilutive, mostly “technology-push” moneys.

During the last decade, venture capital has often been criticized as “too risk averse” and coming too late to play its role in the chain. Governments have been called to provide financing and incentives to help linking universities’ intellectual property with the financing chain.

In this context, somewhat different models, called “tech transfer” in a narrower sense, have emerged, looking for alternative exit routes and sources of financing to commercialize universities’ intellectual property. They seem to have been particularly successful in the UK during the years 2000 with the development of companies such as IPGroup or Imperial Innovations.

Why this success? What are the specificities of the model? Was there something special in the UK environment? Is this approach an alternative or a complement to the traditional VC chain? What lessons for government interventions at this stage of the chain?

To explore these questions, we have structured our panel in the following way:

- Graham Richards, who was from 1997-2006 Chairman of the Chemistry Department at Oxford University, started several very successful spin-outs and is presently Senior non Executive Director of IPGroup will, in a short presentation address the question: “Why does tech transfer work better in the UK?”. Very interesting information on the UK context and the tech transfer model is to be found in his background information documents.

---

1 This definition comes from Graham Richards’ (one of our panellists) recent book: “Spin-Outs – Creating Businesses from University Intellectual Property”, Harriman House, p.17

- Anne Glover, CEO and co-founder of Amadeus Capital Partners, a leading VC fund in the UK, who also manages Amadeus & Angels Seed Fund, a seed fund co-financed by Capital for Enterprise (a government program), will be able to discuss the parallel or complementarities between tech transfer and the VC approach. Detailed background information on this topic is to be found in her document.

- Rafi Hofstein, who was President and CEO of Hadasit Ltd., the technology transfer company of the Hadassah Medical Organization in Jerusalem and is presently President and CEO of MaRS Innovation in Toronto, will bring both an Israeli and North American Perspective. Please see his document for a presentation of the Hadasit, Bioline Rx (Jerusalem) and MaRS models.

- The panel will be moderated by Francis Carpenter, former CEO of the European Investment Fund where he developed specific approaches to financing tech transfer groups.

Panel 4

Moderator

Mr. Francis Carpenter
Former CEO
European Investment Fund

Mr. Francis Carpenter has recently been:

- Founder and Managing Partner: Ayersrock.Lux,
- Chief Executive: European Investment Fund (EIF) and
- Secretary General: European Investment Bank (EIB).

AYERSROCK.LUX

Since early 2008, Francis Carpenter has become an angel investor, taken up several directorships,

- Non executive director of IP GROUP Plc, leading European University Technology Transfer business, quoted on LSE;
- Supervisory Board of BULGARIAN DEVELOPMENT BANK;
- Chairman of the Investment Committee of IVCI an Eur 160m Turkish technology fund of funds;
- Supervisory Board of 17 CAPITAL, a UK based mezzanine debt fund;
- set up his own advisory business, AYERSROCK.LUX
- Special Advisor to CAISSE des DEPOTS International , (CDC group) Paris,
- Advisor to COGENT Partners,(Houston & London) a leading secondary specialist;
- Advisor to NESTA London, an endowment fund financing innovation in the UK;
- Several pro bono activities

EUROPEAN INVESTMENT FUND (EIF)

Appointed mid 2002 Chief Executive of EIF, 66% owned by EIB, 25% by the European Community, 9% by 30 public and private banks, EIF is the EU's specialist fund for VC, mid cap PE and SME portfolio guarantees, credit enhancement and microfinance. Total assets under management were in excess of €15bn end 2008.

Francis Helped to raise substantial public and private funds, and developed EIF into one of the leading European fund of tech funds, (EIF was first round investor in Skype with an 80X exit); and attracted a dozen new shareholders to EIF.

Negotiated new Credit Ratings EIF was consistently AAA rated since 2003 with Multilateral Development Bank status since 2004 with zero Basle II weighting.

EUROPEAN INVESTMENT BANK (EIB)

Secretary General of EIB, the highest career position in one of the world's largest financial institutions operating primarily in the European Union; in this capacity, Francis oversaw the formation of the EIB Group in 2000, revising EIF statutes and negotiating two EIB capital increases.

Previously was Director of Credit Risk during one of the previous financial and banking crises, and oversaw various work outs, rescue operations and project financings,

Francis holds degrees from Oxford (UK), the New School for Social Sciences (New York City) and from the Institut d'Études Politiques in Paris. He is fluent in English, French and Italian, with working knowledge of German, Spanish, and Portuguese. He is married with four children and his hobbies include early music, books, and history.

Panellist

Professor Graham Richards
Senior Non-Executive Director
IpGroup plc

Graham Richards was from 1997-2006 Chairman of the Chemistry Department at Oxford University, the largest Chemistry Department in the western world. He is a Fellow of Brasenose College where he studied Chemistry, and was a tutor for over 30 years. He was a pioneer of the field of computer-aided molecular design and is the author of over 350 scientific articles and some 17 books. He has been a visiting professor at Stanford University and at the University of California, Berkeley.

He has consulted for a number of major pharmaceutical companies and was the founding scientist of Oxford Molecular Group Plc and Inhibox Ltd, the company which exploits the results of his outstandingly successful screensaver project which had the power of over 3 million PCs.

He holds a number of non-executive directorships including being senior non-executive director of IP Group Plc, the company which grew from his innovative funding of the new Chemistry Research laboratory in Oxford and is Chairman of Inhibox Ltd.

In 1996 he was awarded the Lloyd of Kilgerran Prize for the application of science for the benefit of society; in 1998 the Mullard Award of the Royal Society; in 2001 the Italgas Prize, and the 2004 American Chemical Society Award for Computers in Chemical and Pharmaceutical Research.

Details of his book 'Spin-outs: creating businesses from university intellectual property', Harriman-House 2009, can be found at http://www.youtube.com/watch?v=N1duF1EzVPY

Panellists

Ms. Anne Glover
CEO
Amadeus Partners

Anne is Chief Executive and co-founder of Amadeus Capital Partners Limited, the European technology investor. Amadeus has over £400 million of funds under management and has backed over 60 companies covering computer hardware and software, mobile and fixed communications technologies and medical technologies. These include Cambridge Silicon Radio plc and Optos plc, both now listed on the London Stock Exchange.

Anne began her career with Cummins Engine Company, the global leader in diesel engine design and production. She then worked with Bain & Co. in Boston for five years before returning to the to join Apax Partners & Co, investing in early stage companies. Before founding Amadeus, Anne was a business angel and Chief Operating Officer of Apax-backed company, Virtuality Group plc, which listed on the London Stock Exchange in 1993.

Anne was Chairman of the British Venture Capital Association (BVCA) in 2004-2005, having been a member of the Council that runs the organisation since 1999. She is also a member of the government's Technology Strategy Board, the Private Equity Institute at the London Business School and serves on the Board of Optos plc

Anne holds an MA in Metallurgy and Materials Science from Clare College, Cambridge and a Masters in Public and Private Management from Yale.

Dr. Raphael Hofstein
President and CEO
MaRS Innovation

Dr. Raphael (Rafi) Hofstein joined MaRS Innovation President and CEO in June, 2009.

Dr. Hofstein received his PhD and Master of Science degrees in Life Sciences and Chemistry from the Weizmann Institute of Science in Rehovot, Israel. His Bachelor of Science degree in Chemistry and Physics was attained from the Hebrew University in Jerusalem. Awards received while completing post-doctoral training and research at the Harvard Medical School in Boston in the Departments of Biological Chemistry and Neurobiology include the Hereditary Disease Foundation Fellowship in 1982-83, and the Chaim Weizmann Postdoctoral Fellowship in 1980-82.

From 1999 to June 2009 Dr. Hofstein held the position of President and CEO of Hadasit Ltd., the technology transfer company of the Hadassah Medical Organization in Jerusalem. He has served as Chair of Hadasit BioHolding Ltd., publicly traded on the Tel Aviv Stock Exchange (TASE), since 2005.

Background for Panel Discussion

Tech. Transfer: New model or traditional VC funding

Prof. Graham Richards
University of Oxford
Senior non-executive Director IP Group Plc

[A full account of the above topic may be found in his book Spin-outs: Creating Businesses from University intellectual property. *Harriman House, 2009*]

Technology transfer

Covers the area of exploiting university Research by industry

Two routes - licensing
- spin-out companies

The latter requires a significant time commitment of the academic

Often organised or assisted by the Technology Transfer Office, TTO of the university

[in Oxford called Isis Innovation]

Tech transfer in the UK does work Example

The Oxford Chemistry Department has contributed some £80 million to the central University as a result of spin-outs.

15 companies: 5 IPOs
£40 million cash
£20 million holding in quoted companies
£20 million fair value in unquoted companies

Why has tech transfer worked better in the UK than in other European companies?

1. Clear ownership of IP given to individual Universities by Mrs. Thatcher in 1988 on condition that a mechanism be set up to exploit.

In Oxford the University pays patent and legal costs

2. Until recently the availability of AIM, The Alternative Investment Market

3. Historical reasons – see following

History I

Until 1945 Universities neither owned or sought to own IP

due to the Owen Scandal

In 1924 Oxford's Professor of Agricultural Engineering proved to be a swindler and the University was sued for £750,000

Full details in the appendix

History II

1940

After the fall of France and Britain was alone the US provided 50 ships: the "lend lease" agreement. US got bases in the West Indies plus Britain agreed not to patent

Radar
Jet Engine
Penicillin

1945

Realising the UK had given away billions, the Atlee Government set up the NRDC [National Research for Development Corporation] which owned all Government funded IP

History III

1945-87

NRDC, later BTG, British Technology Group had a poor record. Turned down the hovercraft and in

1987

Under Mrs Thatcher decided that monoclonal antibodies were not worth patenting.
Mrs. T. who earlier introduced Venture Capital in the UK took the monopoly from BTG and gave the IP to the Universities.

Oxford Spin-outs Pre 1998

		Capital	Equity	Main Business
1959	Oxford Instruments	£106m	-	Scientific Instruments
1977	Oxford Lasers		-	Lasers
1988	Oxford GlycoSciences	£218m	Yes	Glycobiology
1989	Oxford Molecular	£53m	Yes	Drug design
1992	Oxford Asymmetry	£343m	Yes	Chemistry
1994	PowderJect	£422m	Yes	Drug delivery
1996	Oxford BioMedica	£62m	Yes	Gene Therapy
1997	Oxagen		Yes	Genetics
1997	Oxford Gene Technology		Yes	Gene chips

Valuations (at 22/4/2002) £1,204m

Oxford Spin-outs Post 1998

1998		
Feb	Opsys	Displays
Mar	Synaptica	Neurodegenerative diseases
Jun	Prolysis	Antibiotics
Nov	Celoxica	IT
Nov	Sense Therapeutic	Pharmaceuticals
1999		
Mar	Avidex Pharmaceuticals	Pharmaceuticals
Jun	Oxxon Pharmaccines	Pharmaceuticals
Jun	Dash Technologies	IT
Aug	Oxonica	Nanotechnology
Aug	Abington Sensors	Sensors
Dec	Oxford Medical Imaging	Image analysis
2000		
Jan	Third Phase	Clinical trials management
Apr	Mindweavers	Sensory development
May	Oxford BioSignals	Vigilance monitoring
Aug	Oxford BioSensors	Biosensors
Dec	TolerRX	Immunology
Dec	OXIVA	Medical software
Dec	PharmaDM	Drug design
2001		
Mar	OxLoc	GPS/GSM tracking
Mar	The Oxford Bee Company	Pollination
Apr	Oxford Ancestors	Genealogy
Apr	Novarc	Press tooling
May	Oxford ArchDigital	Digital archaeology
Nov	NaturalMotion	Neural networks
Dec	Inhibox	Drug searching

Oxford Spin-outs Post 1998 (cont.)

2002

Jan	Pharminox	Cancer Drugs
Feb	Minervation	Health Information
Mar	Spinox	Artificial silk
May	Zyentia	Protein Structures
Aug	Oxitec	Insect pest control
Oct	Oxford Immunotec	TB Diagnostics
Nov	ORRA	Risk Analysis
Nov	Glycoform	Cancer drug dev't
Nov	BioAnalab	Pharma Testing

2003
VASTox Ltd
ReOx Ltd
Riotech Pharmaceuticals Ltd
Oxford Consultants for Social Inclusions Ltd

2004
Oxford Medical Diagnostics
G-Nostics
Surface Therapeutics Ltd
EKB Technology Ltd

2005
RF Sensors
Oxford Nanopore Tech
Celleron
Oxford Catalysts

Oxford Spin-outs Post 1998 (cont.)

2006
TdeltsS
Oxford Medistress
Particle Therapeutics
Aurox Ltd
Oxford Advanced Surfaces
OxTox
Cyfox

2007
Crysalin
Oxford Biodynamics
Clinox
Eykoma

2008
OrganOx
Navetas Energy Management
Semmle
The Oxford-Emergent TB consortium

2009
Oxford Yasa Motors
Zyoxel
Oxford Financial Computing

Typical Equity Split

Funders	**40%**
Management	**10%**
University	**25%**
Academics	**25%**

(Department receives 25% of University benefit on exit)

Royalty sharing

Isis pays all patent costs:~ £2.5m per year

Isis recovers patent costs from royalties

Isis retains 30% of royalties

The net revenue is transferred to the University and distributed

Total net Revenue	Researchers personally	University general fund	Department funds
To £50k	87.5%	12.5%	0
To £500k	45%	30%	25%
Over £500k	22.5%	40%	37.5%

Initial funding

'Grub'funding - 50K pounds for proof of concept

'Seed' funding - 500K for starting a company

'First round' - <3 million pounds

Angels are important in all these cases
In addition there are often grants from Government agencies or charities.
The new class of companies like IP Group use balance sheet

Sources of Funds

VC funding only for later rounds
~£200m in past decade in Oxford

Initial funding – Angels
Grants
IP Group

IP Group Plc

www.ipgroupplc.com

Has partnerships with 12 UK Universities

Provides 'grub funding'

Some follow-on 'seed funding'

Sources further investment and finds management, chairman and directors

Has founded 75 companies
15 IPOs

Fair value of portfolio £100m

Value of 10 largest holdings £75m

Current problems for companies

Valuation

Appetite for IPOs

Weakness of the AIM market

Sources of funds

Weakness of some Tech Transfer offices

Management

Tech transfer: new model or traditional VC financing?

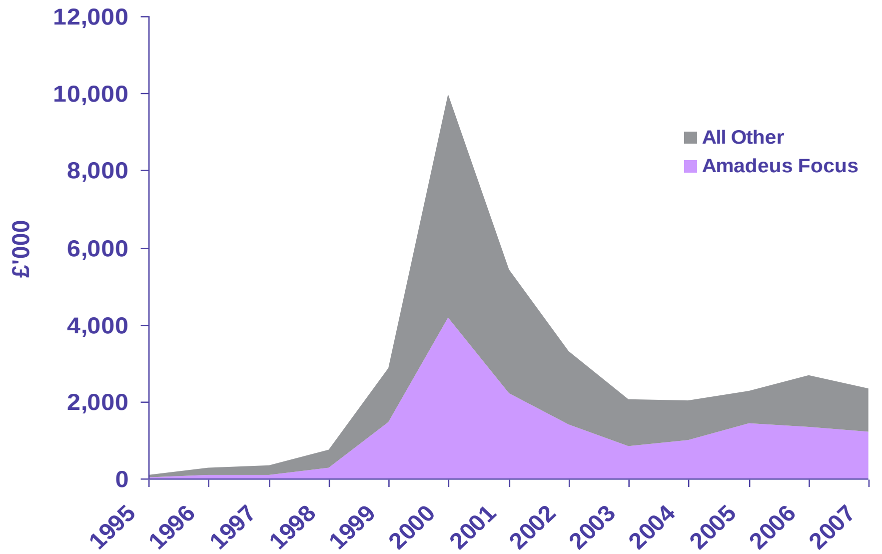
Anne Glover
CEO – Amadeus Capital Partners Limited
October 25th 2010

Comparison between VC and Tech Transfer ……. it is choice, not a continuum!

- Venture Capital
  - Part of a financial ecosystem
  - Focuses on value creation from building new global winners
  - Biggest question is not technology, but market adoption and defensibility
  - Requires exit visibility within 5-7 years
  - Tends to move rapidly between sectors
    - seeking the 'new, new thing!'
  - Has been moving into more capital efficient sectors:
    - Internet apps vs.infrastructure
    - Medtech vs biotech
- Technology Transfer
  - Part of an industry ecosystem
  - Focuses on value creation from rapid technology adoption
  - Biggest question is where is this innovation best exploited – existing or new corporation?
  - Requires technology or IP defensibility for 10-15 years
  - Tends to deepen within a sector
  - searching for broader impact on the industry
  - Is often operating in capital intensive sectors;
    - Materials and chemistry
    - Genomics and Stem Cells

When the two are combined there can be some astoundingly positive results

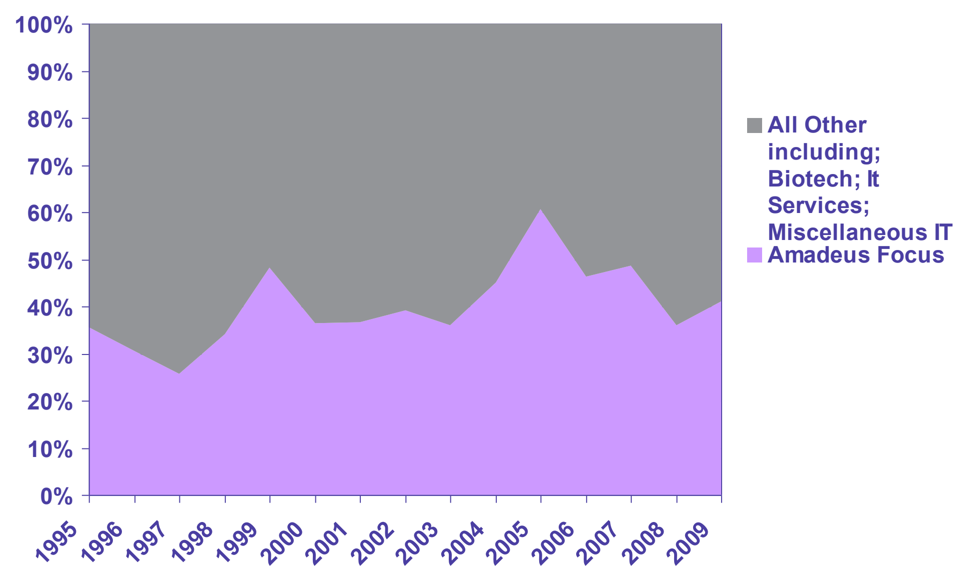
Annual European VC Capital Investment
By Market Sector 1995-2007



Amadeus Capital Partners Limited

Source: Thomson Financial's VentureXpert database

Annual European VC Investment (% of capital)
By Market Sector 1995-2009

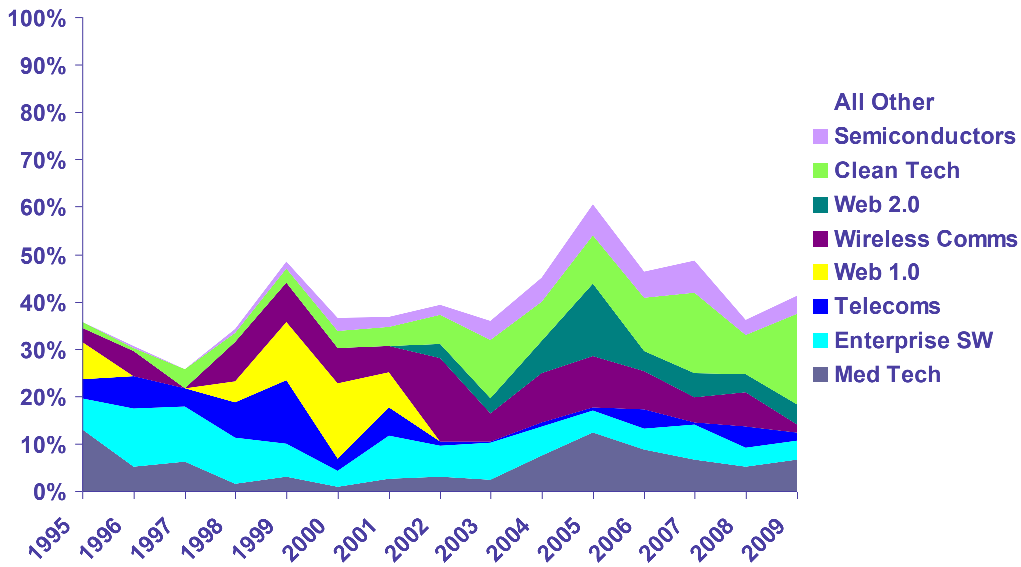


Amadeus addresses about 50% of the market opportunity in VC

Amadeus Capital Partners Limited

Source: Thomson One database

Annual European VC Investment (% of capital)
By Market Sector 1995-2009

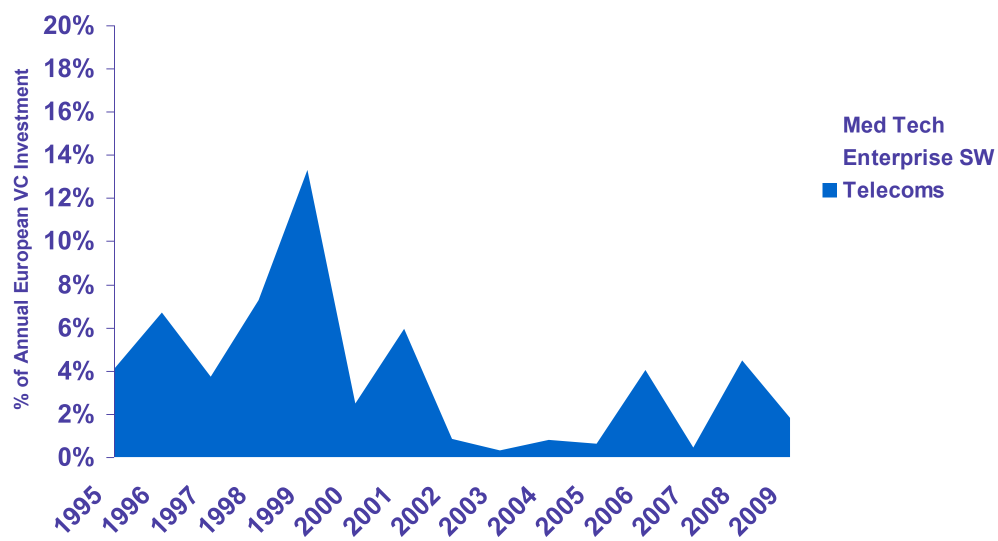


…but must shift its interest as new sectors emerge within the VC market

Amadeus Capital Partners Limited

Source: Thomson One database

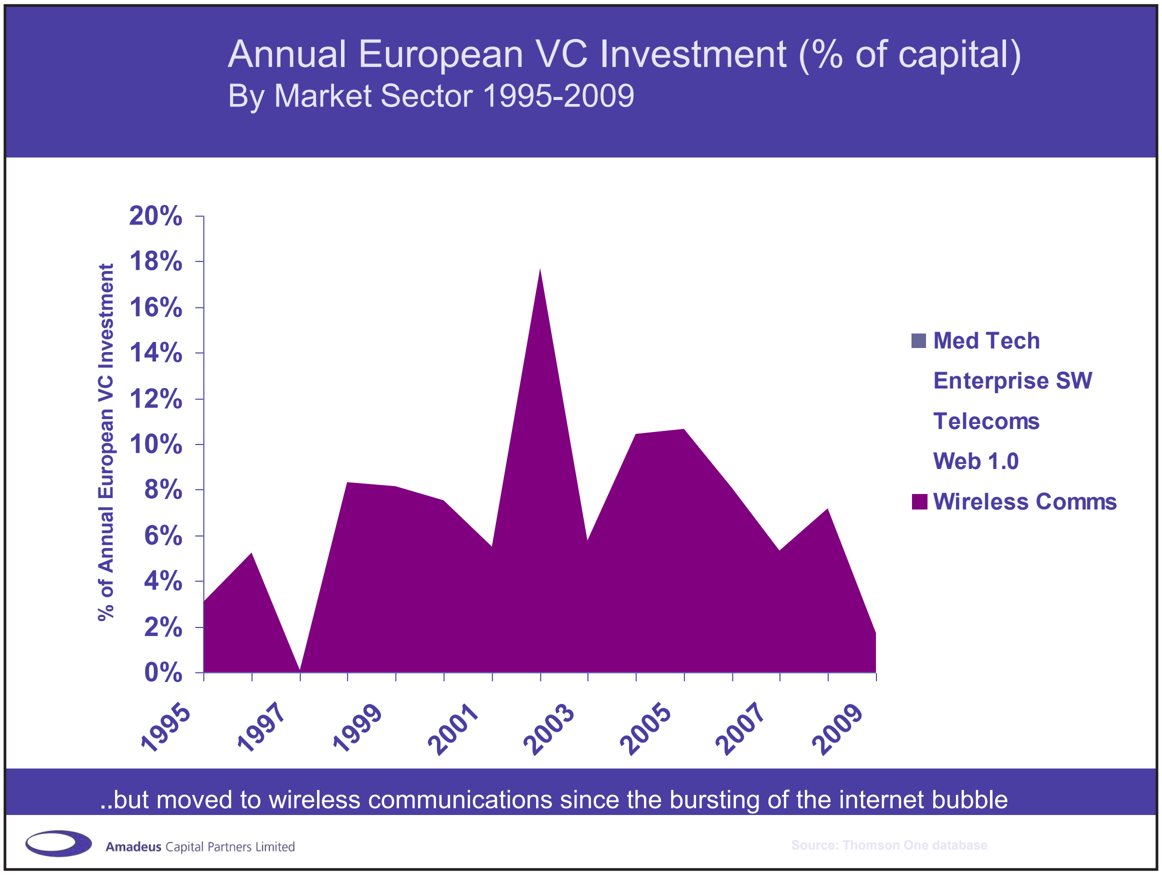
Annual European VC Investment (% of capital)
By Market Sector 1995-2009

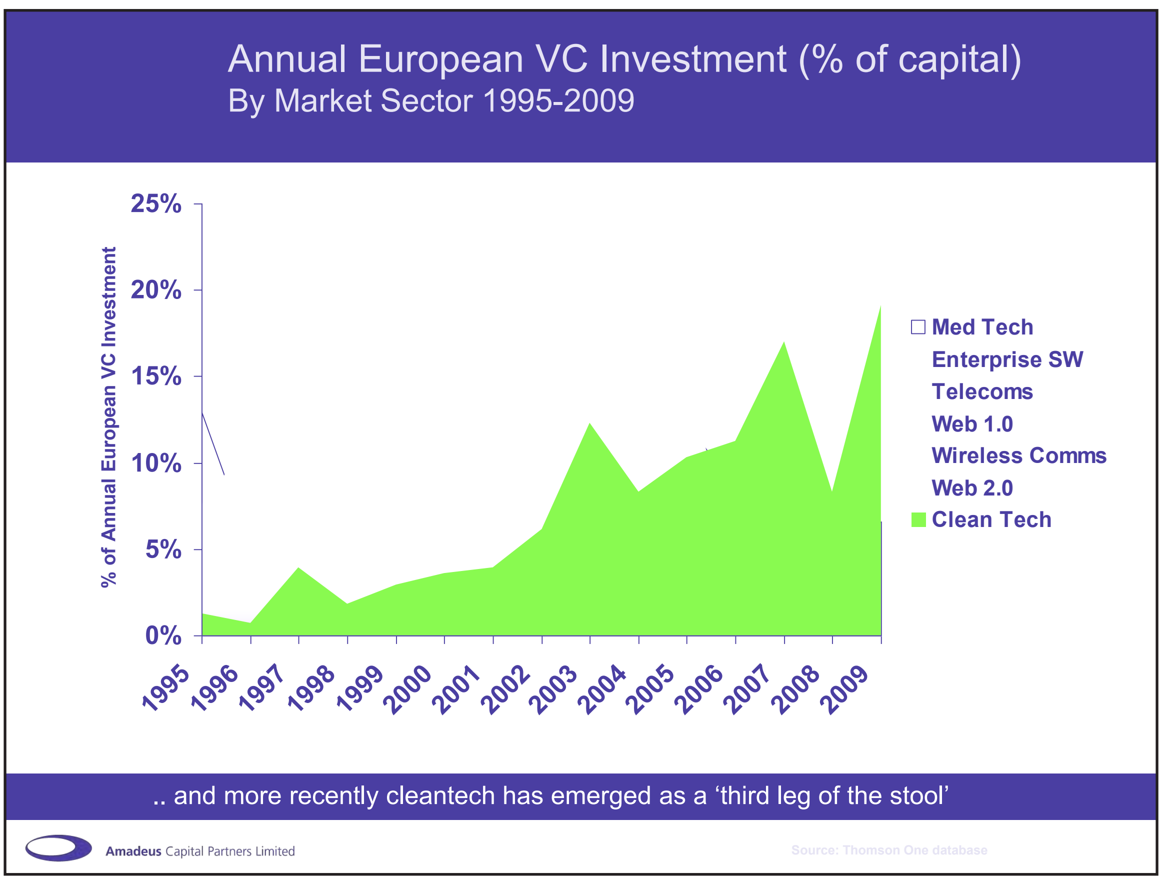


Telecomms infrastructure was a very successful focus in the late 90's

Amadeus Capital Partners Limited

Source: Thomson One database


Annual European VC Investment (% of capital)
By Market Sector 1995-2009
% of Annual European VC Investment
20%
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
1995
1997
1999
2001
2003
2005
2007
2009
Med Tech
Enterprise SW
Telecoms
Web 1.0
Wireless Comms
..but moved to wireless communications since the bursting of the internet bubble
Amadeus Capital Partners Limited
Source: Thomson One database


Annual European VC Investment (% of capital)
By Market Sector 1995-2009
% of Annual European VC Investment
25%
20%
15%
10%
5%
0%
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
Med Tech
Enterprise SW
Telecoms
Web 1.0
Wireless Comms
Web 2.0
Clean Tech
.. and more recently cleantech has emerged as a ‘third leg of the stool’
Amadeus Capital Partners Limited
Source: Thomson One database

Amadeus Snapshot
Overview of Funds (31 December 2009)

Fund	Size	Status	Companies	Focus
Amadeus I (1998)	£50m	Fully invested (£53m)	24	Early Stage Primarily UK
Amadeus II (2000)	£235m	93% invested (£219m)	30	Balanced UK and Selectively in Europe
Amadeus III (2006)	£162m	51% invested (£82m)	20	Balanced UK, Cont. Europe & Selectively in Israel
AMSF (2001)	£3m	75% invested (£2.2m)	2	Seed Stage Southeast England
AASF (2006)	£10m	28% invested (£2.8m)	6	Seed UK
Amadeus EI (2009)	£13m	39% invested (£5.2m)	3	Secondary UK and Cont. Europe

Our ambition is to be the leading European technology VC

Amadeus Capital Partners Limited

Source: Amadeus 2009 Quarterly Reports
AMSF: Amadeus Mobile Seed Fund; AASF: Amadeus & Angels Seed Fund

Amadeus Approach
Current Portfolio

•Optos

• Enqii
• Glysure
• Icera
• Intune

• Ip.access
• Liquavista
• Nomad
• Octo-telematics

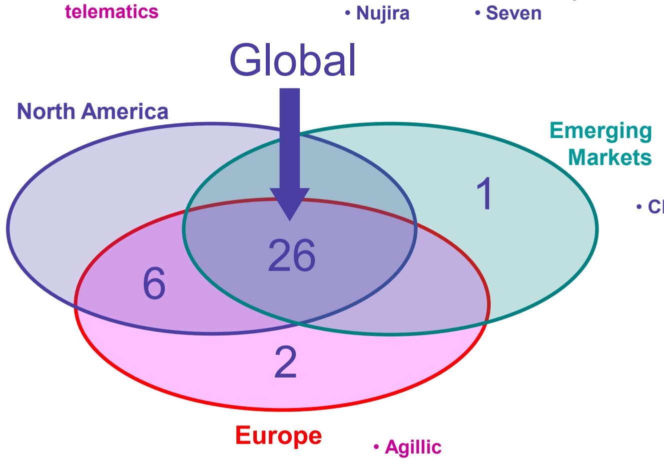
• Openbravo
• Tobii
• XMOS
• Veebeam

• AePONA
• Clearswift
• Celltick
• ForeScout
• Nujira

• Packetfront
• PlasticLogic
• Power ID
• Power Paper
• Seven

• Solarflare
• Teraview
• Transmode
• Xelerated

• AMEE
• Covestor
• GreenRoad
• Edgeware
• Episerver
• ForthDD



• CBNL

• Agillic
• MyDeco

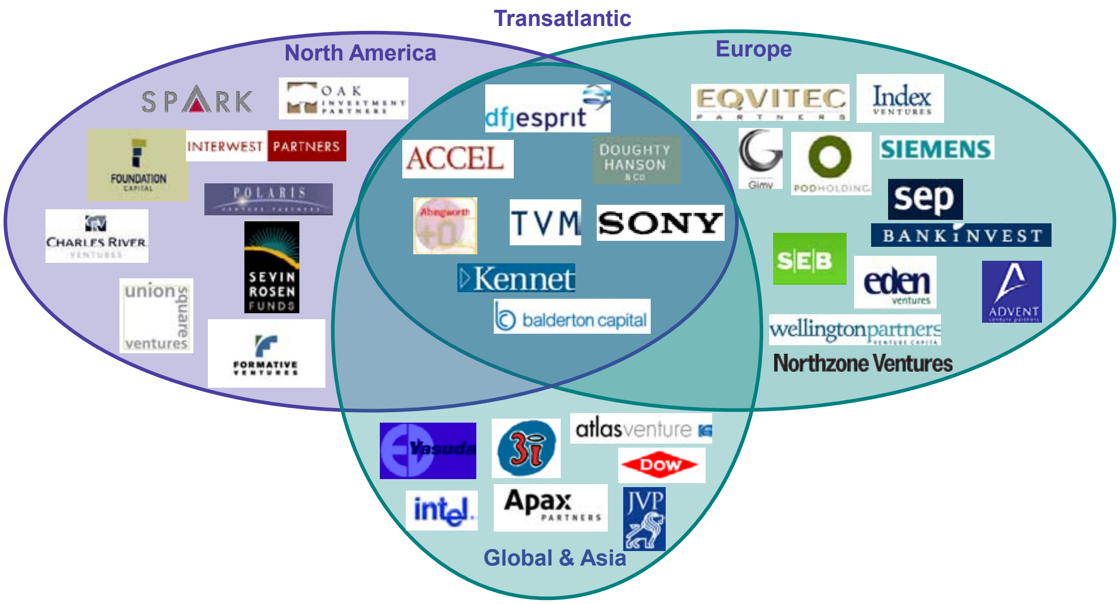
Amadeus III
Amadeus II
Amadeus I

26 out of 35 Companies have Global Ambitions

Amadeus Capital Partners Limited

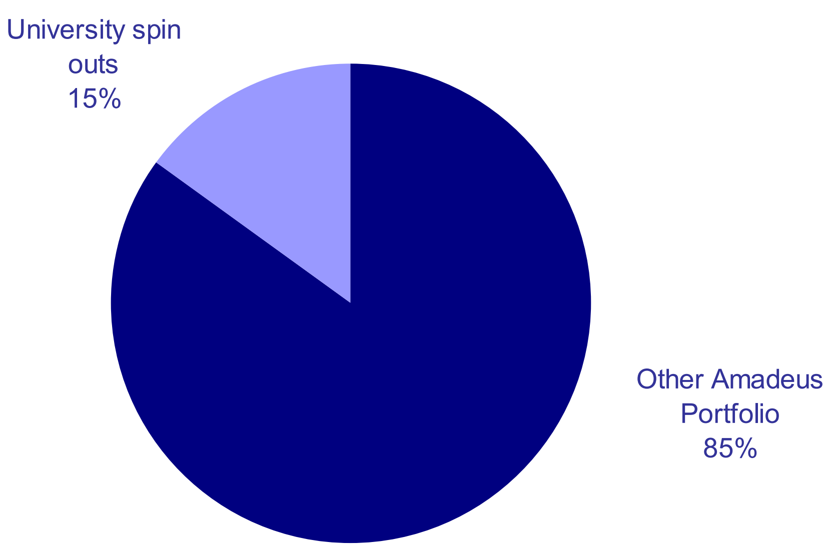
Sales or next year target sales into region > 5%

Co-investor Community

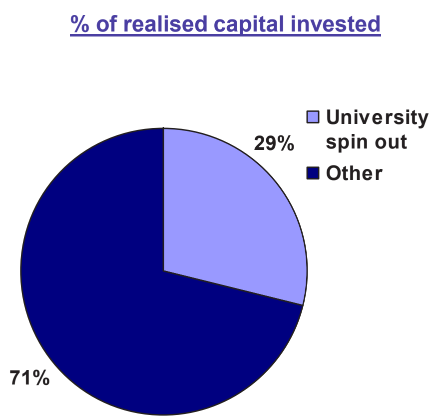


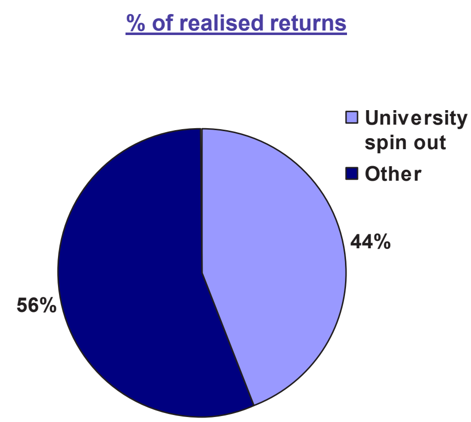
We syndicate with relevant partners in all geographies

University Spin-outs as a proportion of the Amadeus Portfolio



29% of realised capital has been invested in University spin outs and this has generated 44% of the realised return





When do Tech Transfer and VC work best together?

- Technology Innovation can disrupt a large industry
  - Existing players unlikely to adopt – but may acquire!
  - New business models are possible
  - Links to 'early adopting' pilot customers are possible
- The core IP can be surrounded and supplemented by a pipeline agreement
  - New product pipeline can evolve from the technology
  - Broader applications could emerge in the near future
  - Significant 'know-how' can be built around the technology
- The founders see the benefits of aggressive and early recruitment of world class business talent

MaRS Innovation

Presentation – Quebec Public Policy Forum

October 2010

MaRS Innovation

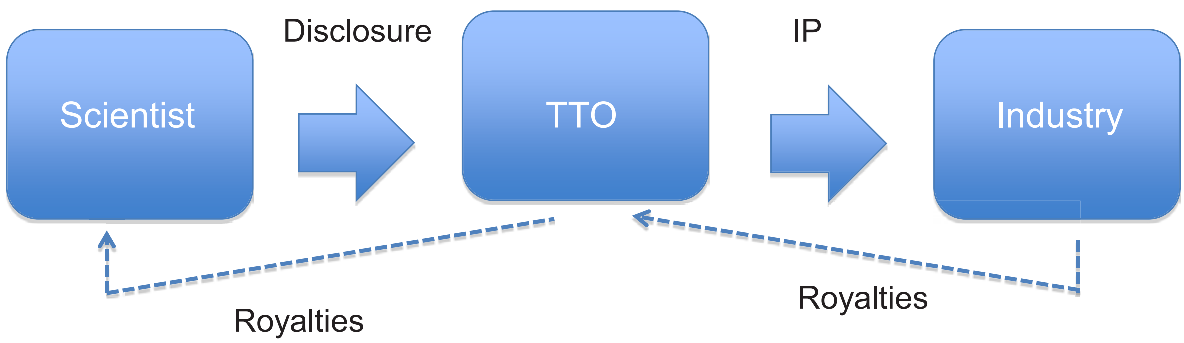
Government of Canada Networks of Centres of Excellence
Gouvernement du Canada Réseaux de centres d'excellence

Variations

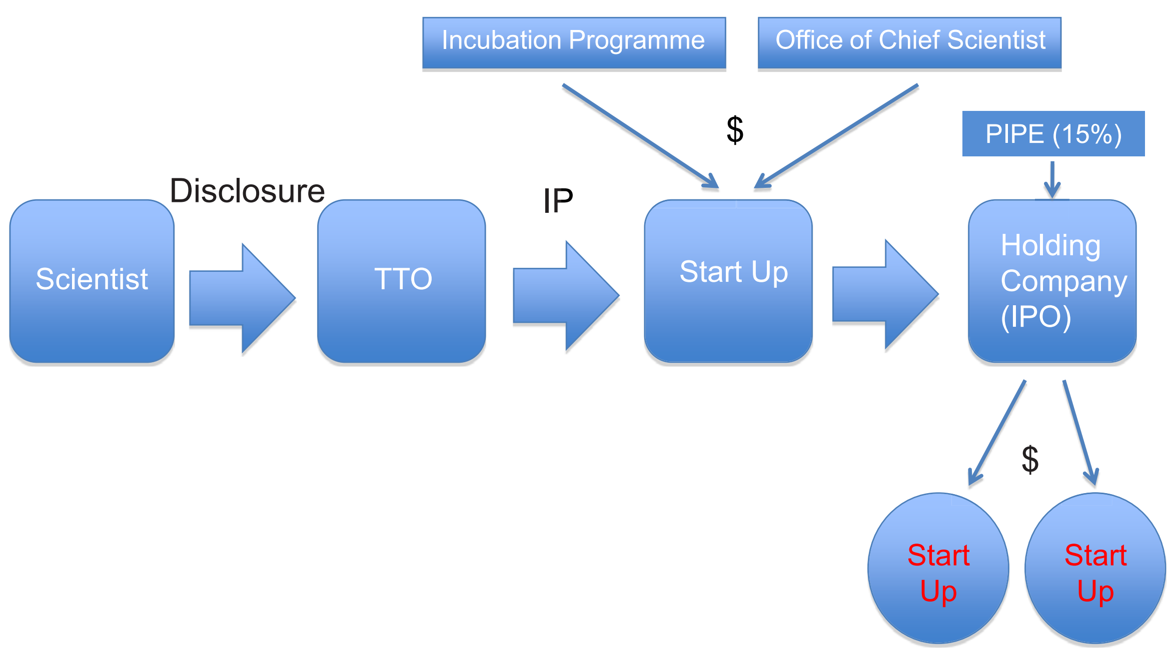
Variations on the theme of Technology Transfer

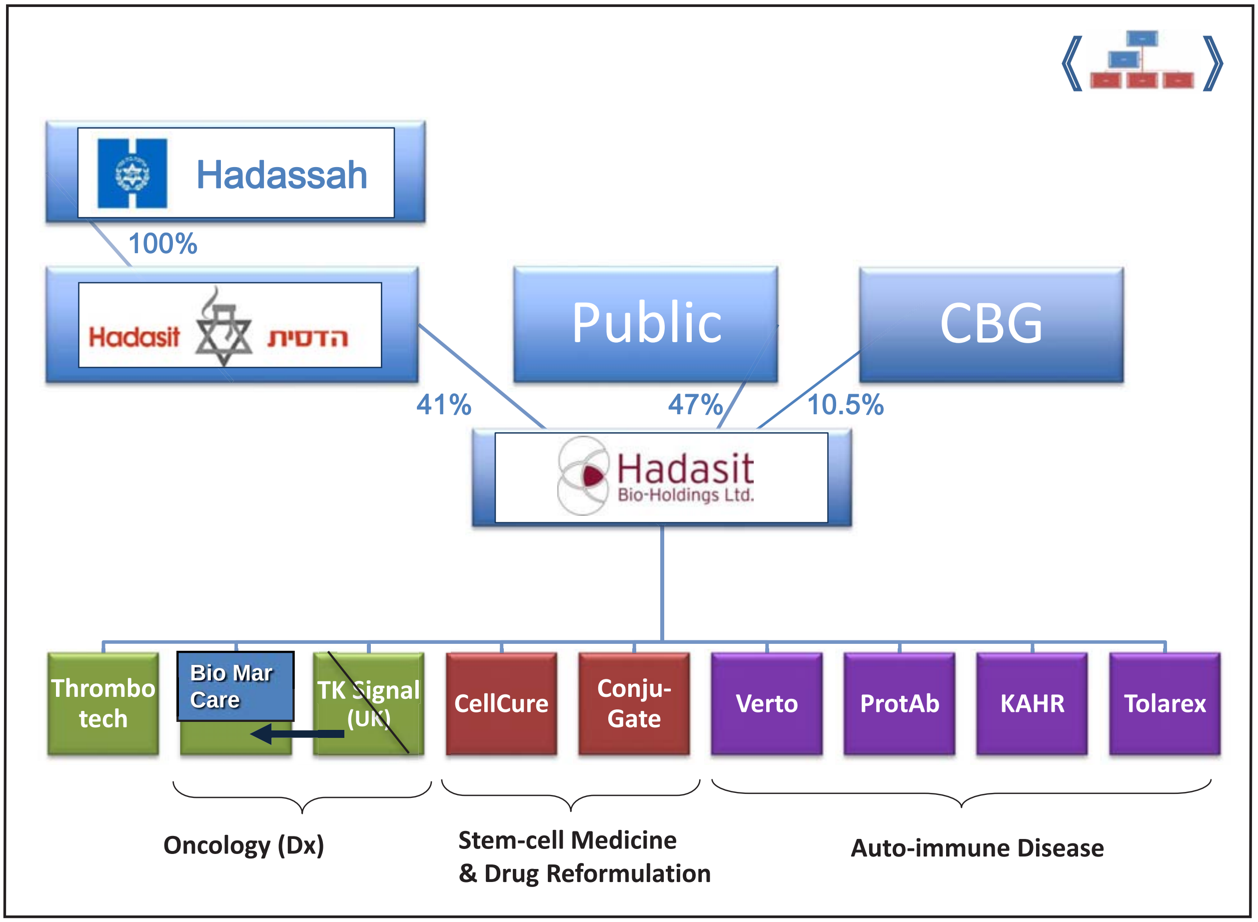
- The Classical
- The Hadasit BioHolding Approach
- The BiolineRx Approach
- The MaRS Innovation Approach

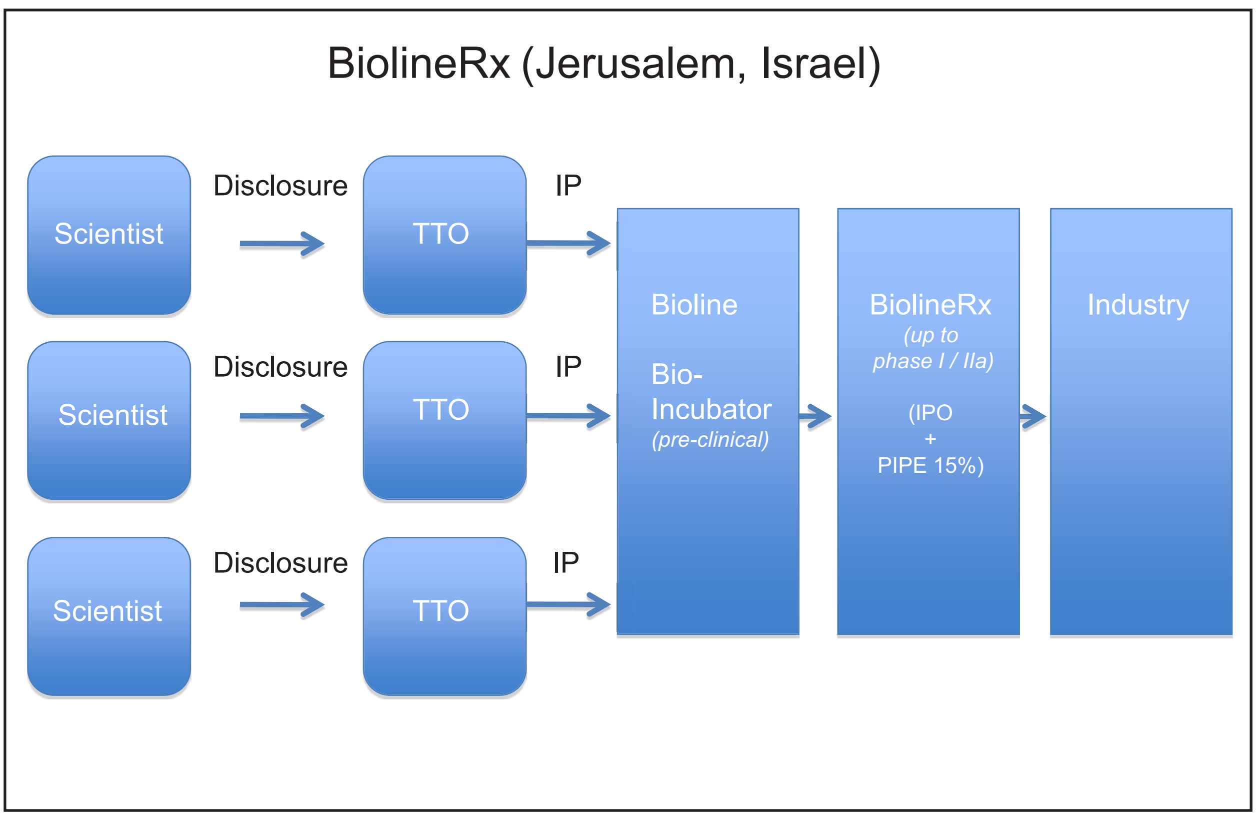
The Classical Approach

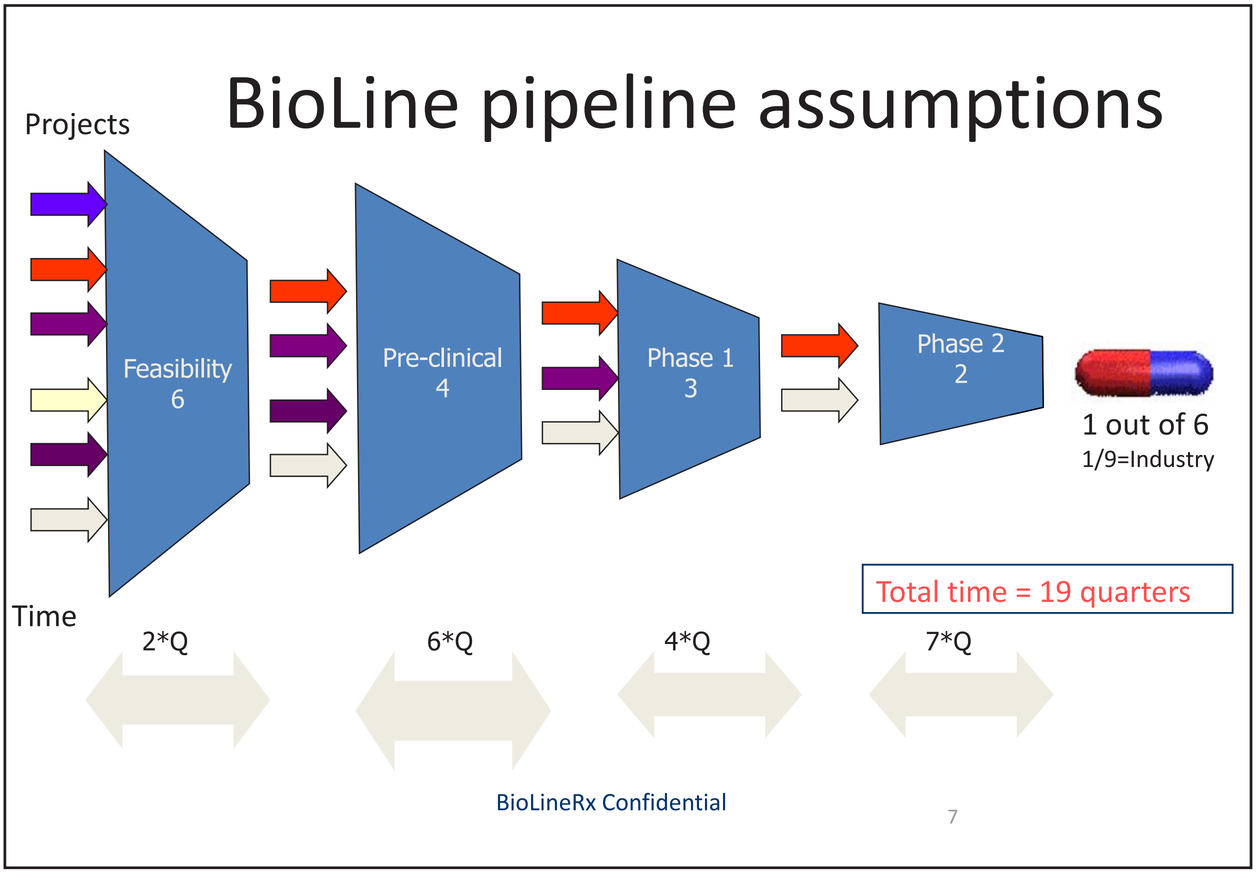


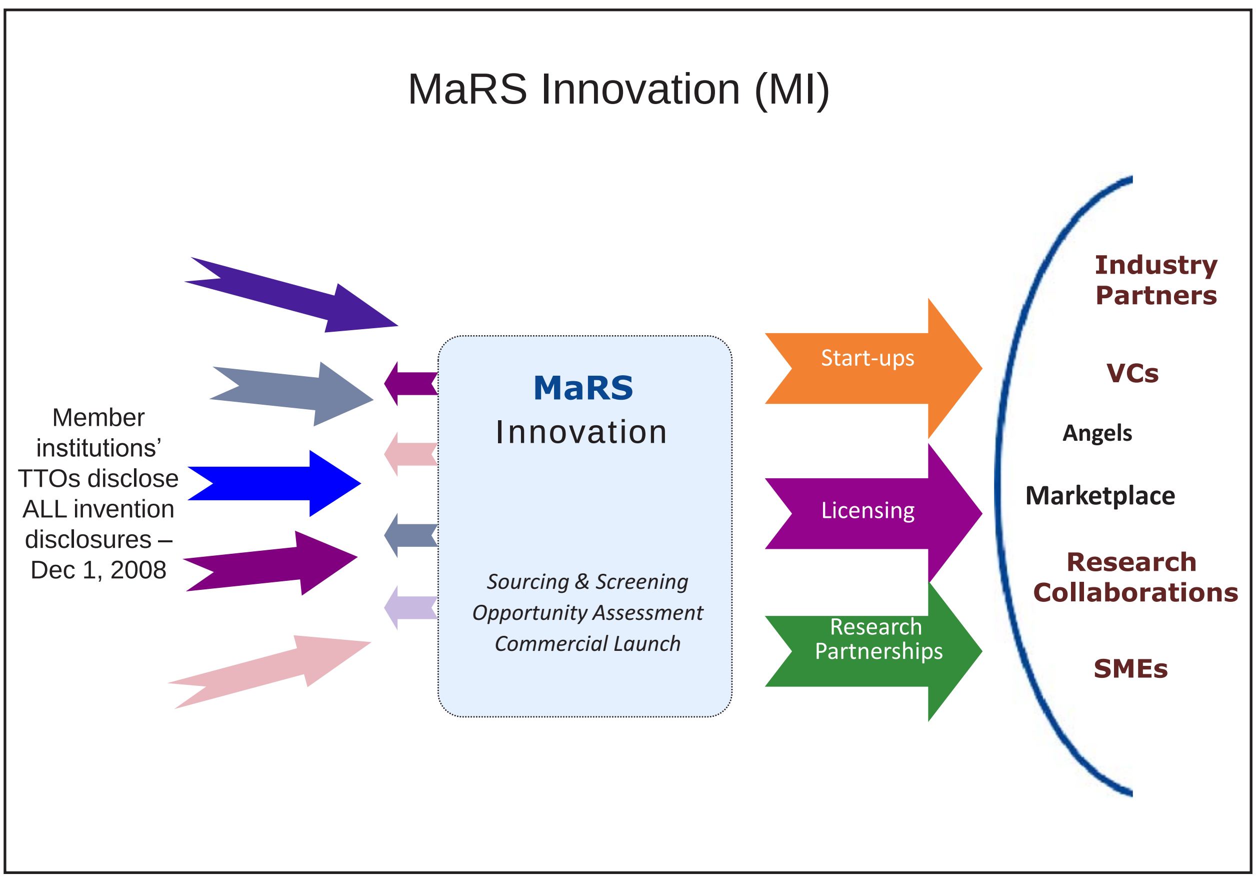
Hadasit BioHolding Ltd. (HBL) – Jerusalem, Israel




Hadassah
100%
Hadasit הדסית
Public
CBG
41%
47%
10.5%
Hadasit
Bio-Holdings Ltd.
Thrombo tech
Bio Mar Care
TK Signal (UK)
CellCure
Conju-Gate
Verto
ProtAb
KAHR
Tolarex
Oncology (Dx)
Stem-cell Medicine
& Drug Reformulation
Auto-immune Disease


BiolineRx (Jerusalem, Israel)
Scientist
Disclosure
TTO
IP
Scientist
Disclosure
TTO
IP
Scientist
Disclosure
TTO
IP
Bioline
Bio-Incubator
(pre-clinical)
BiolineRx
(up to phase I / IIa)
(IPO
+
PIPE 15%)
Industry


BioLine pipeline assumptions
Projects
Feasibility
6
Pre-clinical
4
Phase 1
3
Phase 2
2
1 out of 6
1/9=Industry
Total time = 19 quarters
Time
2*Q
6*Q
4*Q
7*Q
BioLineRx Confidential
7


MaRS Innovation (MI)
Member institutions' TTOs disclose ALL invention disclosures – Dec 1, 2008
MaRS
Innovation
Sourcing & Screening
Opportunity Assessment
Commercial Launch
Start-ups
Licensing
Research Partnerships
Industry Partners
VCs
Angels
Marketplace
Research Collaborations
SMEs

The Issue

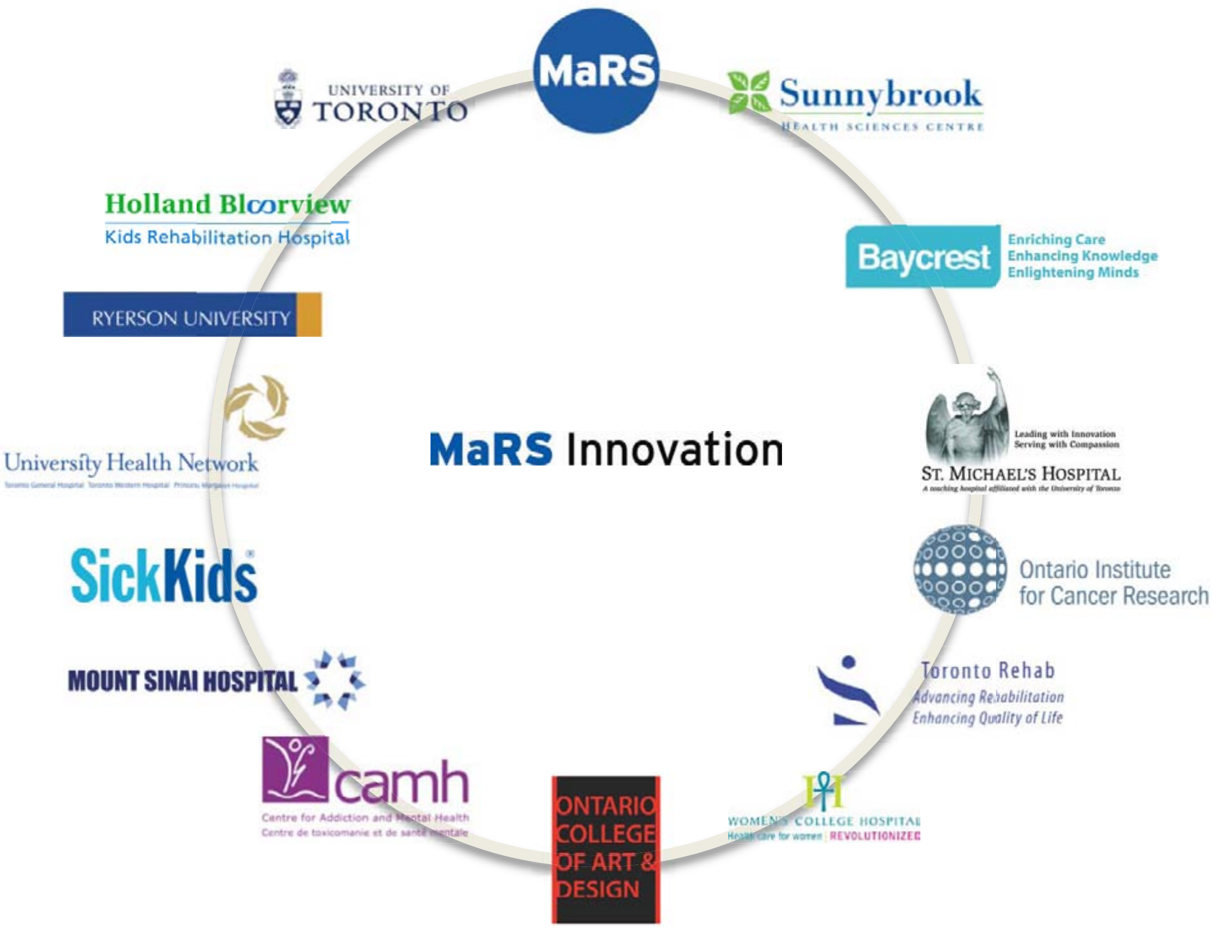
Ontario produces globally recognized quality scientific research but has not maximized its commercial applications

The Solution

MaRS Innovation:

- Integrates its members' discoveries and resources (approx. $30M)
- Leverages government and private sector support
- Transforms the most promising technologies into profitable products and services for the global market
- Has an exclusive option to ALL intellectual property assets from 14 universities and teaching hospitals, representing > $1B in annual R&D

Our Members



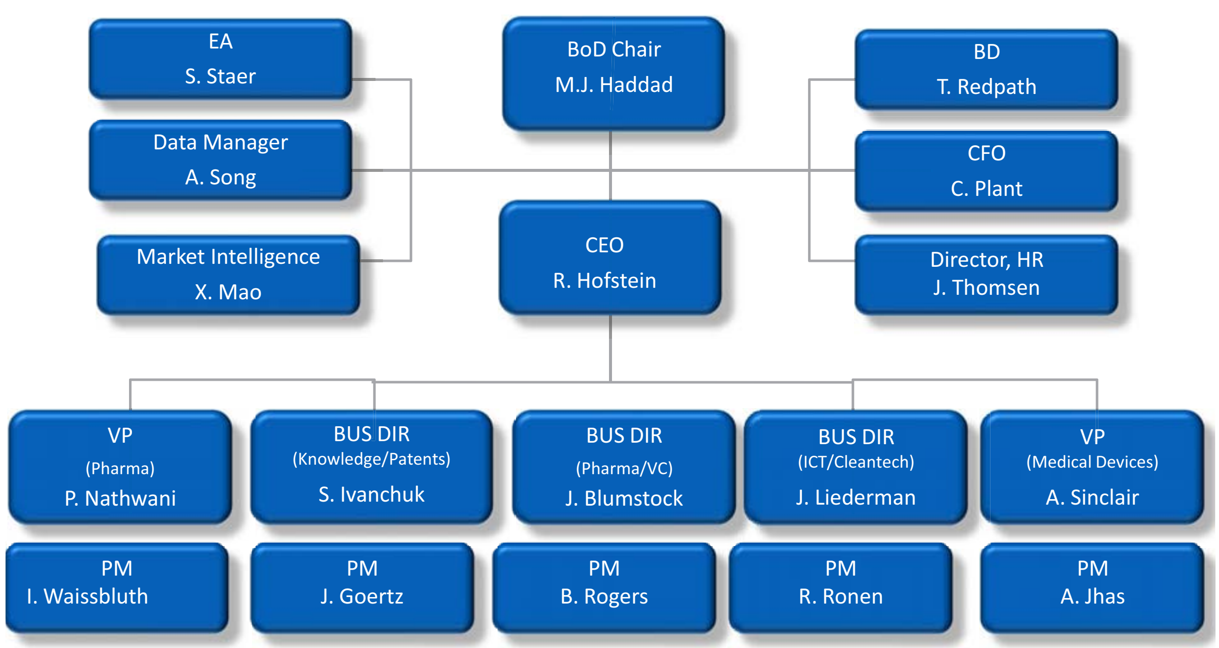
Our Vision

MaRS Innovation will transform the Ontario-based research enterprise into one of the most successful commercialization clusters in the world.

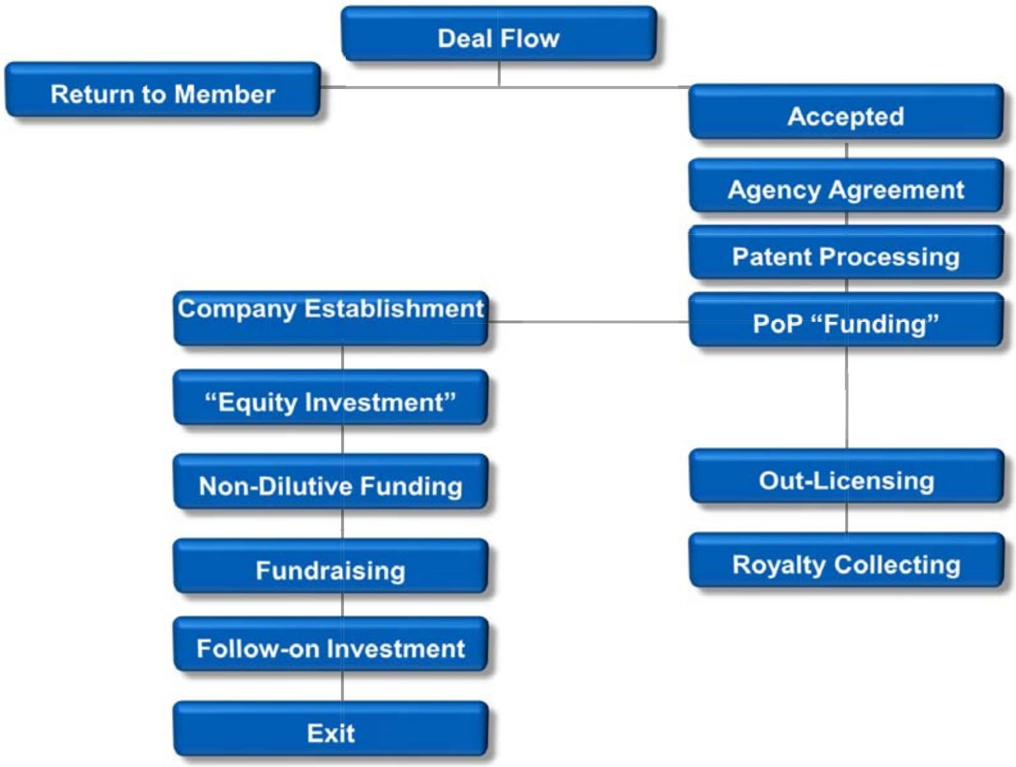
Objectives

- Accelerate commercialization of leading technologies
- Attract and retain top talent
- Strengthen the innovation capacity and competitiveness
- Create, grow and retain companies
- Attract investment from a variety of sources
- Raise $150M through PE/VC/angels

organizational structure



VALUE CHAIN



Financial Challenge – ‘the gap’

$50-500K
Internal
Resources

>$5M
Venture Funds
and/or Companies
+
Private Equity / Angels

Hadasit BioHolding Ltd.

Success Metrics

- ➢Raised $50M (15% PIPE)
- ➢Funded the entry of 8 start-up companies into clinical trials
- ➢Each of the start-up companies raised another $4-6M + received government support for R&D expenses

BiolineRX

Success Metrics

- ➢Raised over $100M (15% PIPE)
- ➢Funded early stage projects through BioIncubator Programme
- ➢Funded clinical development of several products
- ➢Out-licensed 2 products at the end of Phase IIb

MaRS Innovation

Success Metrics

- ➢Create approximately 15 starts-up companies by end 2013
- ➢Raise VC/angel capital for each company ($5-10M each)
- ➢Create company clusters

thank you