



**Tech Futures:**  
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By [Michael Volker](#)

## **Innovation Nation, Innovative Dell, Some Recent Financings, Capital Pool Corps Update and VEF Events**

### **Innovation Nation**

**Len Brody**, co-author of "Innovation Nation", spoke at a **TIA** breakfast this week. His point was that there are many superb, but unsung, Canadian technology entrepreneurs achieving great heights not only in Canada but in the U.S. as well. Some, such as **Glenn Ballman** who is featured in the book and a speaker at the event, was one of those who ventured into the U.S. where he started **Onvia.com** - one of the big capIPOs of the dot-com era and have returned to Canada. Others, such as **Dan Gelbart** (co-founder of **CREO Inc**), an immigrant from Israel, deliberately chose Canada as *the place* to come to and stay.

**James Topham** of **KPMG** reported that Canada is one of the best places in the world for a technology company to be located. Canada has a 14.5% overall advantage - as compared to the U.S.A. as a benchmark reference and in certain areas offers even greater cost advantages. For example, software companies have a 22% advantage while R&D companies have a whopping 30.6% advantage.

Glenn Ballman observed substantial progress during the six years that he was absent from Canada. He echoed Topham's remarks that Canada is an attractive place from which to do business. His only somewhat negative observation was that Canadian expenditures on R&D are lagging those in the U.S. He stated that the Americans have 9 times the investment in R&D and 44 times the return (I'm not sure where he got these numbers). Sure, we spend less on a GERD/GDP basis than the U.S., but in the past six years, our performance has gone from around 1.2% to 1.8% which is a notable improvement. In B.C. we're still hovering around 1%, but then again B.C.'s a diversified economy. Former Finance Minister **Paul Martin** went on record a couple of years ago saying that Canada had to triple its R&D expenditures from \$14.5 billion to \$50 billion by 2010 (when he's Prime Minister, we'll have to hold him to that!).

According to Glenn, entrepreneurs in Canada get a lot more help from government programs (e.g. NRC's IRAP and CCRA's SRED tax credit program) than do their American counterparts. Although he was not particularly in favor of such support, it does behoove entrepreneurs to take advantage of them.

With respect to entrepreneurship, Glenn suggested that Canadian entrepreneurs must THINK BIG. He did a great job of painting a picture of how a technology startup progresses through various stages of financing. To attract angels who typically expect a gain well over 10X, you have to figure out what the company can grow to valuation-wise such that this can be achieved. Then, at the venture round, the process is repeated since VCs have an expectation of a 10X gain.

For example (my numbers - he didn't go into this much detail), let's take a company with a target exit value of \$100 million. Angels who invest early on, might put \$500K into a company at a \$2 million valuation (i.e. 25%). As the company grows in value, it'll become attractive to VCs who will place \$2 million at a \$10 million valuation (taking 20% which dilutes the angels down to 20% leaving founders and management with 60%). Then, if the exit value is achieved (which is no

small task - how many \$100 million deals can you point to?), the VCs get \$20 million (their 10X return) and the angels get \$20 million as well which gives them a 40X return. In reality, the company will likely be worth much less than \$100 million when it gets acquired (an acquisition is more likely than an IPO) and will also likely need a lot more than a \$2 million VC investment, say \$4 million. That's why the VCs end up with such large stakes.

In the thinking BIG category, another comment made (I think **David Raffa**, the moderator of the event, said this) was that Canadians like to say things like we're going to be the Canadian version of U.S. Company "X", implying scaled-down, lesser aspirations - not too impressive. A great example of a BIG thinker follows this piece (see Dell).

**Dan Gelbart**, well known in B.C. as a technology guru and entrepreneur, started **Creo Inc** with **Ken Spencer** in 1984. Creo has grown to become B.C.'s largest technology company and high tech manufacturer achieving over \$1 billion in annual sales. When Dan came to Canada in the 70's all he wanted was a war-free "rational" country and a city on the ocean with no snow. Vancouver and Australia matched those criteria but when a friend told him of Australians emigrating to Canada, his choice was clear. So, he didn't come for the low costs of doing business or the favorable R&D climate, although these factors certainly help in keeping him here. (See Len's four pillars.)

Dan did have an axe to grind with our education system, though. He noted that bright kids (aka nerds) should get special attention - i.e. by giving them encouragement and support to become super achievers instead of treating them as misfits. (Dan knows about the [Shad Valley](#) program which partly addresses this matter. In fact, a Shad grad, **Darryl Spencer**, is now one of Creo's intrapreneurs.) Dan told me that what we need is to separate the kids in high school into tracks (sciences and humanities) and give serious training in science to those who are capable absorbing it. He also said that the teachers should have a degree in what they are teaching, unlike the current system where a gym teacher can teach science. This system of tracks is used in other countries with great success.

Another shortcoming that Dan highlighted pertains to B.C.'s minimal manufacturing infrastructure. He complained about the paucity of "made in Canada" labels on consumer products. He noted that most of B.C.'s tech companies are really R&D companies and their manufacturing (if not software products) is outsourced offshore. He was proud of Creo's production capability and in order to help build critical mass in the manufacturing sector, Creo has a policy of favoring local suppliers and will give them preference even if their prices are 10% higher than competitors elsewhere. That's noble!

**Len Brody** wrapped up the session nicely by identifying the "four legs of the northern tiger", i.e. Canada's

- Entrepreneurial Spirit
- World Class Talent
- Low cost of doing Business
- Quality of Life

He also noted that Canada's tech sector just doesn't get any respect. We need to blow our horn a little louder - especially if we want to attract foreign investors (some U.S. VCs have come to kick the tires but we need to get them in the car).

[The book, "Innovation Nation", is published by **Wiley**. It costs about 30 bucks - but the profits are being donated to a scholarship/business plan contest at **Ryerson** in Toronto.]

## **Innovative Dell**

This week I went to hear **Michael Dell**, founder of **Dell Computer Corp**, speak at a **Vancouver Board of Trade** luncheon. You can view Dell's presentation on the Board of Trade's website at [www.boardoftrade.com](http://www.boardoftrade.com).

**Fortune** recently ranked Dell as the fourth most admired company. (by the way, Wal-Mart was in first place and among tech companies, only Microsoft, IBM and GE placed in the top 10).

First, a quick snapshot of Dell Computer Corp:

1984 - Michael Dell starts Dell Computer with \$1000

1987 - first Computer firm to offer next-day on-site service

1988 - IPO of 3.5 million shares at U\$8.50 each

1997 - stock hits \$1000/share (pre-split basis)

2003 - stock hits \$2290/share (pre-split, Jan 31)

2003 - 15.2% Market Share, US\$35 Billion sales

	2003	2002	2001	2000	1999
<b>Net revenue US\$ Billion</b>	\$35,404	\$31,168	\$31,888	\$25,265	\$18,243
<b>Operating income \$Bn</b>	\$2,844	\$2,271	\$2,768	\$2,457	\$2,046
<b>Net income \$Bn</b>	\$2,122	\$1,780	\$2,310	\$1,860	\$1,460
<b>Diluted earnings per share</b>	\$0.80	\$0.65	\$0.84	\$0.68	\$0.53
<b>Closing stock price</b>	\$23.86	\$26.80	\$25.19	\$37.25	\$50.00

Dell started in 1984 with only \$1,000. The first product was not a PC, but rather, a hard drive upgrade kit for PCs. Remember, 1984 was just the third year after IBM introduced the desktop PC and most of the computers sold then did not have hard drives (floppies with 1.4MB did the trick). As with many successful companies, that which gets you into business isn't necessarily that which ultimately makes you successful. There are many local examples of this - CREO Inc., Pivotal Corp, and QLT Inc all had vastly different products in their original business plans. Once you're in a market you are exposed to new opportunities and if you can seize these, that's what will make you a leader. And that's exactly what Michael Dell did to make Dell Corp a US\$35 billion global enterprise with enviable bottom line results in a tough industry.

Dell has managed to report phenomenal quarterly growth of 26% relative to the industry - an industry in which there's currently little growth. Indeed, it's the only profitable growth company in the industry.

There were some hidden gems in his talk that entrepreneurs should note. For example, Dell focused on his competition. In many of his market matrix slides he showed Dell's market position vis a vis other leading PC makers such as HP, IBM and various Japanese firms. He noted that his firm's operating expenses as a percentage of revenues were 9.9% and declining whereas IBM's and HP's were 27% and 22% respectively *and* increasing!

To illustrate the firm's efficiency, Dell explained that "last Friday 106,000 systems were sold" (I wonder how many CEO's are on top of their numbers in this fashion?) and that this was accomplished with only 90 hours' worth of inventory on hand - shipping to customers on a 3-5 day lead time basis. As soon as a system is shipped, Dell's software (running on Dell servers of course) alerts suppliers as to inventory replenishment needs. Dell's in-house manufacturing costs are 6% below outsourcing costs as is the case with most of Dell's competitors. The company is the largest build-to-order manufacturer in the world and has currently has six global production operations.

More important than his quest for operational efficiency and his keen sense of competitive forces, it struck me that his attention to customer needs is his strong suit. He emphasized quality (high quality = lower support costs) and customer support. After all, the company was only three years old in 1987 when it offered next-day on-site support to its PC buyers.

At one point in his talk, the audience was asked who owned a Dell computer. After a large show of hands, Dell thanked them for being customers.

By establishing a presence in dozens of global markets and catering to local needs, Dell is intent on dominating each of those markets.

A question from the audience asked what he saw as the company's main threat. Just like Pogo (who said we've seen the enemy and he is us), Dell commented that "we're the biggest threat" - i.e. getting sloppy, not hungry, etc. He suggested that the entrepreneur's challenge is to "do something completely different".

Do you ever wonder how some companies in hotly competitive saturated markets can continue to take market share?

It all comes down to looking after your customers. Just look at **Air Canada** as the antithesis of Dell. This week Air Canada took to blaming events such as the Iraqi War and SARS for its move into bankruptcy protection. The Globe and Mail reported on its complex restructuring proposal which including items such as the creation of a new holding company, debtor-in-possession financing from GE, reduction in labor costs, pension plan changes, etc. No where does it say something like, "take better care of customers". Can you believe it? Nothing short of looking after its customers will ever make any kind of difference in the long run. I've never heard flyers say good things about Air Canada. They always treat you like they're doing you a favour. And when it comes to luggage, I've never received mine in less than 30 minutes on an Air Canada flight whereas on WestJet it's never taken more than 10 minutes.

In another recent speech Michael Dell said this about entrepreneurship: "The question is about entrepreneurship, and what do I think, is someone born with it, or can it be cultivated. Well, the first thing I would say is, I think what we saw in the last two or three years was not necessarily entrepreneurship, it was more opportuneurship. People who took an opportunity that was given to them, and they weren't necessarily taking a massive risk on their own initiative, and we're seeing the devastation that's occurring as a result of that."

"But, you know, I think we have a great thing going in this culture in the United States where risk taking has generally been appreciated and admired as opposed to in other cultures around the world where there's plenty of wealth, there's plenty of capital, but if you take a risk and you fail, then you're kind of an outcast. You're considered a failure, and nobody will talk to you. Whereas in this country, generally, if you fail, it's kind of like, well, he learned something. You know, it's good experience. He'll try something else. He'll go again. I worry a little bit that in the current environment we're losing some of that, but I don't think it will be totally lost. I think that will remain and is something that's very valuable in the culture." (Can we develop such a culture in Canada?)

"And my last thought about this, I think one of the other problems that opportuneurs or entrepreneurs faced in the last couple of years is that there was actually too much capital available. And I say that because a lot of these companies failed because they really didn't have to think very hard about what they were going to do to create something valuable. They just had all this money, and the challenge was, let's go investing, let's go spend the money, let's go build a business. That doesn't force really tough decisions. I mean, our company was started not with \$20 million or \$50 million. We started with \$1,000. And if you only have \$1,000 to start a company, you think very carefully about what you do with each one. And I think that's a problem that a lot of these companies had. If you have a new idea, I would say, you have to decide for yourself whether you should go for it. I certainly followed some learnings or some examples of others, but, if I went around opinion shopping when I started my company, a lot of people would have said, well, that will never work, that's crazy, you should stay in school." Touche!

Biography of Michael Dell: Dell was born in 1965 in Houston, Texas, and attended the University of Texas in Austin. Dell has earned the title of "Entrepreneur of the Year" from Inc magazine, was named "Man of the Year" by PC Magazine, "Top CEO in American Business" by Worth Magazine, "CEO of the Year" by Financial World and Industry Week magazines, and was on Business Weeks list of "Top 25 Managers of the Year" from 1997-1999. In 1992, Dell became the youngest CEO to earn a spot on the Fortune 500. He also sits on the U.S. Presidents Advisory Council on Science

and Technology.

How the Business Started: Dell went to college intending to become a doctor. Meanwhile, his hobby was working with computers. His hobby won out. Dell began selling computers out of his dorm room. And as his new venture progressed, he developed an innovative approach to conducting business: his idea was to sell computers directly to the consumer without going through retailers, and in the process design and deliver a computer based upon the customer's own specifications. Thus, in 1984, Dell founded the Dell Computer Corporation with \$1,000. In 18 years, Dell has grown into a \$31.2 billion company. Today, Dell's average earnings are \$40 million per day, and it is the largest online commercial computer seller in the world.

### Some Recent Financings

**FSONA Communications**, designer and manufacturer of optical wireless transmission equipment, announced an additional \$9.5 Million in VC financing. A private group of current and new investors, led by **GrowthWorks Capital Ltd.**, manager of the **Working Opportunity Fund** provided \$9.5 Million, which followed a \$10 Million "loan" from the Government of Canada's Technology Partnerships Canada Program. Prior to this, funding, fSONA had received \$32 Million in venture capital.

**Offshore Systems International** (TSX: OSI) placed \$3M from various funds. Offshore Systems, a 20-year old B.C. firm, is a pioneer in the development of electronic chart and positioning systems for the international maritime industry.

**GOLDCORP** has purchased (as part of a brokered private placement) two million units of **Bioteq Environmental Technologies** (TSXV: BOE) at a price of 50 cents per unit.

**CON-SPACE Communications** (TSXV: CCB) announced the acceptance by the Toronto Venture Exchange of a private placement of 237,000 units at \$0.65 per unit.

**Contec Innovations** (TSXV: BUZ) signed a repayable financial contribution agreement with **Industry Canada's** Technology Partnership Canada program, jointly administered by the **National Research Council's** Industrial Research Assistance Program (NRC-IRAP). The contribution of up to \$494,556 is repayable from gross revenues beginning in three years. The funds will be used for ongoing development of the **Horne™**, an open, carrier-grade mobile application server capable of hosting multiple applications in a secure, scalable environment.

### Capital Pool Corporation (CPC) Comments and Update

In this column, I keep track of Capital Pool Corporation ("CPC") companies as defined by the **TSX Venture Exchange** (the former CDNX) because they may provide funding and management to, and in the process acquire, technology companies. They provide companies with an alternative to traditional venture capital financing. It lets the public investor get into the game

Check our [Capital Pool Corporation chart](#) (in .pdf format) for a complete list of the TSX-Venture Exchange's CPC companies, thanks to **David Ing** of **Pacific International Securities**. This list is updated on a regular basis. It is now current to the end of February, 2003. Sorry, no update this month.

An introductory article explaining CPCs may be found at <http://www.bctechnology.com/statics/mvolker-jun0200.html>.

### VEF Events

This month's [Vancouver Enterprise Forum](#) event on April 22nd, will be on "Bootstrapping". So far, the speakers that have been lined up include **Stephane Borque** of **Incognito Software Inc** and **Ralph Turfus** of **Class Software**. Come and learn how to build a business from within as

opposed to throwing piles of VC dough at it.

A complete calendar of local technology events can be found on [T-Net's Events page](#).

One upcoming event (on April 10th) may be of interest - the **CNO** - a new stock exchange for junior companies (to compete against the TSX-V) is coming to town to promote itself. Contact [radhika.joseph@cnq.ca](mailto:radhika.joseph@cnq.ca) (or check the website - [www.cnq.ca](http://www.cnq.ca)) if you're interested.

### Footnotes

If you're an entrepreneur looking for a place to get your company started; there's some great space available at Harbour Centre downtown. The **New Media Innovation Centre** (NewMIC) and **SFU's TIME Centre** have teamed up to provide not only office space but also access to various resources, e.g. tech advisors, access to capital, mentors, etc. Worried about the high cost of being downtown? Well, not to worry - they'll even reduce the fees and take some payment in the form of equity. Check [www.sfu.ca/time](http://www.sfu.ca/time) for contact info.

A reminder: SFU's TIME Centre is open for business - business folks, that is. TIME is an acronym for **Technology, Innovation, Management, and Entrepreneurship**. TIME supports the growth and development of the tech industry in B.C. TIME features a "BusinessCentre" (looks like an airport business lounge) which is open to technology entrepreneurs and business people to use as a drop-in downtown office facility. Need to plug-in? Make some calls? Do some work? Hold a meeting? There are some great facilities for holding your company's AGM. Why hang out at MacDonald's when you can work productively at the TIME Centre? Drop by and check it out! It is located at SFU's downtown campus at 515 West Hastings St.

Michael Volker, a technology entrepreneur, is Director of the University/Industry [Liaison Office](#) at Simon Fraser University, Chair of the B.C. Advanced Systems Institute, Chair of the [Vancouver Angel Network](#) and past Chair of the [Vancouver Enterprise Forum](#). He owns shares in many of the companies he writes about. Copyright, 2003.

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