



**Tech Futures:
January 3, 2003**

By [Michael Volker](#)

2002 Winners & Losers, Financing Outlook, Access to Capital, Capital Pool Corps Update, Local Events and Footnotes

2002 Winners & Losers

Not too many investors, especially those in the tech sector, made any money in 2002 (I know - it's an understatement). The tech-laden **Nasdaq** index opened at 1965.18 at the start of 2002 and closed at 1335.51 at the end of the year - a 32% drop over the year and the year before that it opened at 2474.16! Even the broader markets were down in 2002 - the Dow dropped 16.8% and the S&P/TSX was off 14%. The markets have posted annual declines for three years in a row now. Will that be all?

We've learned that markets don't behave rationally according to economic principles. I guess that's why psychology professors **Daniel Kahneman** and **Vernon Smith** won the **Nobel** prize in economics last year!

Let's take a look at what happened in the B.C. tech scene. Are there any winners? With respect to publicly listed companies, let's start with B.C.'s top 20 firms (by market cap). (Note that this list was last updated in the late summer - hence there are likely some companies that'll be replaced in the next update.)

Company	Price 31Dec02	Change 2Jan02	Percent Change	Mkt.Cap/ 2001 Rev	More Info
Ballard Power Systems	\$17.47	-29.69	-62.9%	MC\$ 1.9B REV\$ 57M	quote/chart, website
PMC Sierra Inc.	U\$5.56	-15.70	-73.8%	MC\$ 921M REV\$ 346.2M	quote/chart, website
QLT Inc.	\$13.40	-27.10	-66.9%	MC\$ 908.8M REV\$ 127.5M	quote/chart, profile, website
Angiotech Pharmaceuticals	\$53.57	-35.43	-39.8%	MC\$ 839.7M REV\$ 1.1M	quote/chart, profile, website
MacDonald Dettwiler	\$22.49	-5.26	-18.9%	MC\$ 819.2M REV\$ 481.0M	quote/chart, website
Creo Inc.	\$12.86	-7.64	-37.3%	MC\$ 639.8M REV\$ 1.0B	quote/chart, website
ID Biomedical	\$10.41	+3.61	+53.1%	MC\$ 331.8M REV\$ 4.7M	quote/chart, website
Inex Pharmaceuticals	\$4.63	-3.76	-44.8%	MC\$ 152.4M REV\$ 5.5M	quote/chart, website
Westport Innovations	\$2.79	-3.00	-51.8%	MC\$ 141.7M REV\$ 23.3M	quote/chart, website
Sierra Wireless	\$6.90	-23.10	-77.0%	MC\$ 112.8M REV\$ 92.5M	quote/chart, website

Stressgen Biotechnologies	\$1.80	-2.80	-60.9%	MC\$ 108.4M REV\$ 5.4M	quote/chart, website
Sierra Systems Group	\$7.91	+0.91	+13.0%	MC\$ 75.2M REV\$ 128.8M	quote/chart, website
Anormed Inc.	\$2.70	-0.75	-21.7%	MC\$ 69.0M REV\$ 9.5M	quote/chart, website
Cardiome Pharma	\$2.45	-1.15	-31.9%	MC\$ 70.8M REV\$ <\$1M	quote/chart, website
VSM Medtech	\$2.10	+1.33	+172.7%	MC\$ 61.0M REV\$ 3.3M	quote/chart, website
Norsat International	\$1.50	-2.00	-57.1%	MC\$ 49.6M REV\$ 20.6M	quote/chart, website
Silent Witness Enterprises	\$6.50	-5.15	-44.2%	MC\$ 49.0M REV\$ 45.2	quote/chart, website
Intrinsyc Software	\$1.09	-1.81	-62.4%	MC\$ 41.7M REV\$ 12.6M	quote/chart, website
MDSI Mobile Data Solutions	\$5.08	-0.55	-9.8%	MC\$ 41.5M REV\$ 89.9	quote/chart, website
Pivotal Corporation	U\$0.71	-5.44	-88.5%	MC\$ 17.1M REV\$ 128.8M	quote/chart, website

Of the top 20, only three showed any positive results for shareholders. Most showed double-digit losses, far exceeding the Nasdaq index's drop. Even some with good operating results, such as **MacDonald Dettwiler** (MDA), slipped.

Note that market caps suffered during the year. A lot of the value seems to have disappeared from these companies. I've included 2001 revenues for these companies. Whenever revenues exceed market caps (mostly true for non-biotech firms), and given profitable performance projections and history (e.g. **MDA**), these might represent value investments. Companies in hotly competitive markets, such as **Pivotal**, would be undervalued if and when (repeat, if) they show good operating results. This would be a speculative pick as compared to **Creo**, **MDSI** or **Silent Witness** which would be slightly more conservative choices. And then there's the biotech ones. The Globe and Mail was quick to call **QLT** and **Angiotech** the big losers in 2002, so it might make sense to watch and wait a little on these before jumping in.

What've we got to look forward to for 2003? With the uncertainties surrounding the war on terrorism, coupled with fraud and greed in the executive suite, it's no wonder that investors behaved irrationally. In reading over various 2003 outlook reports, I was unable to find any consensus on what'll happen in the coming year. It's like my Windows operating system - just when I think I've got it working, it crashes on me and lets me down. And I just can't give readers the pleasure of calling me yet another presumptuous prognosticator.

The Economist publication's forecasts are encouraging. GDP is expected to grow over the next three years in most countries - especially the USA (2.4 to 3.3%) and ASIA (even Japan will show plus signs this year). So, all that's needed is for worries about war to dissipate, a restoration of board and management confidence, continued improvement in corporate performance, and positive investor moods and we'll be all set for 2003!

Financing Outlook

A number of people have been asking me what I think about the investment

outlook for private equity.

Overall, I believe the VC investment mood is improving. There are a number of reasons why I say this.

Mary Macdonald of Macdonald and Associates, a VC-industry guru reports that Canadian VC investments in Q3, 2002 were up 7% over Q2 to \$475M. New institutional investment commitments to the VC industry - already at \$707M by September - will dramatically exceed the \$483M raised by VC's during all of 2001. At the recent IT Financing Forum held in Vancouver she commented that "...what I'm hearing more and more from venture capital firms is that there is a willingness to look at new deals, and that's the first time in 18 to 24 months that I've been hearing that."

With respect to the availability of capital, **Yaletown Venture Partners**, a new VC firm, is apparently close to finalizing its initial fund. **Telus Ventures** is becoming more active on the local scene and the **Canadian Business Development Bank** (BDC) has announced \$50M in support of new early stage Canadian firms. The manager of B.C.'s labor-sponsored **Working Opportunity Fund GrowthWorks**, is taking over the management of Ontario-based **Working Ventures**. This increased visibility and profile for GrowthWorks should help in attracting additional investors to GrowthWorks in general which can only be positive for local firms. Last month, **Discovery Capital Corporation** announced the launch of **British Columbia Discovery Fund (VCC) Inc.** (BCDF), with approval to offer redeemable shares to investors. BCDF has received a 3-year tax credit allocation from the **B.C. Ministry of Science, Competition and Enterprise** to raise \$10 million per year in each of 2002, 2003, and 2004, for a total of \$30 million. To compete with GrowthWorks, Discovery is giving investors the ability to request redemption after 5 years (vs. an 8 year hold period in GrowthWorks' fund).

The Venture Capital Corporation program in B.C. is slated to get a big boost this spring when new rules come into effect. This program, which gives B.C. investors a 30% refundable tax credit (without affecting the cost base of their investment), is seen by many as a very positive step towards attracting more early stage risk investors to technology firms. In the past, the total amount of tax credits under the program has been severely limited and difficult for many investors to access because it required the establishment of special investment corporations. Under the new rules, the so-called "direct investment model", will allow individuals to make investments personally thereby avoiding the cost and hassle of setting up a holding company. This will attract many smaller investors of the \$10K variety. This, coupled with the **B.C. Securities Commission's** work to eliminate most of the arcane legislation which companies had to comply with when raising capital (such as having to raise minimum per-investor amounts of \$25K or \$97K, for example), further enhances the capital formation climate here in B.C. The true potential of the VCC program is still constrained by an annual budget limitation of \$15M - thereby allowing only \$50M to be raised.

With respect to angel investing, what I've been seeing is that while angels' appetites are still strong the amounts being invested have shrunk slightly while the number of angels in any given deal seems to be increasing. Companies with good science and good people are not having too much trouble in attracting \$500K or so to get rolling. The afore mentioned new rules and tax incentives will go a long way towards supporting such activity. It's encouraging to note that the number of active angels is steadily increasing. Many angels keep a low profile and work quietly behind the scenes. An informal polling of angels that I come in contact with tells me that this is a

powerful economic force. In B.C., some \$400M in V.C. was invested in 2001 in comparison to an *additional* amount of at least \$80M that was invested by private individuals. For last year (2002), we'll see a 50% decline in VC investing in B.C. to around \$200M, yet I expect that the angel/private investor total will be well above \$50M (my estimate).

The bottom line is that we should see an improving trend in investing in the province. The lingering pain from getting burned in 2000 will make investors more cautious with increased emphasis on good technology/good people companies.

A recent financing example is **Ballard Power Systems** which has successfully completed a \$149.1 million financing by issuing 7.7 million common shares to an underwriting syndicate led by **RBC Capital Markets** and **CIBC World Markets**, with **BMO Nesbitt Burns**, **National Bank Financial**, **TD Securities** and **UBS Bunting Warburg**. The common shares were sold on a bought-deal basis at a price of \$20.25 per common share.

Access to Capital

I often hear people talking about the "access to capital" problem. What they really mean is that they can't get the funding they need to develop their business. That doesn't mean that capital is not available. It just doesn't flow that easily. Given a superb technology and products along with a stellar, committed team, a company should have no trouble getting funding. That's easy to say but it all boils down to a simple concept: RISK. You never really know how good a technology really is (and even if it is, how do you know that someone else doesn't have a better mousetrap?). Also, how do you assess the team? Sure, track record counts but it doesn't guarantee success.

So the real question that has to be answered is how can the risk be mitigated or shared? No incentive, however great, is going to eliminate risk BUT it can encourage risk taking by reducing the amount of capital at risk. That's why incentives such as the VCC program are so popular. When combined with RRSPs, for example, an investor can bet \$10K on a company but only risk losing a maximum of \$3K (30% on the VCC and 42% RRSP contribution deduction). This allows a \$10K investor to bet on three deals - not just one, thereby increasing her odds of a payoff. Taxpayers are sharing in the risk.

Even riskier is the process of fundamental research and development. Our federal government invests some \$15B on R&D annually to produce "raw" intellectual property, a mere fraction of which will pay off in terms of producing commercially viable results. At this end of the innovation continuum, taxpayers take all the risk.

There's a problem here as well as an opportunity. The problem is that much of this "raw" output will never see the light of day because, even with great incentives, the risks - on the science side - are still too great. Such is the case when a company needs to develop a prototype or demonstration project to prove commercial viability of an invention. Hence, short of giving investors a 100% incentive, the only other choice is to with spend a little more (or re-allocate current expenditures) of taxpayers money at the post-R&D and pre-seed (i.e. pre-angel) stage of development in order to push a project down the innovation chain into the receptive hands of highly motivated angel investors. This would encourage technology entrepreneurs to work more closely with researchers to ferret out new opportunities. (In my December 2002 column, I gave an example of how investors can actually stack incentives so as to risk almost nothing!)

Some venture capitalists have recognized this opportunity and some have experimented by creating "seed" funds. But, they haven't worked because they are still investing other people's money and, as such, they have to be risk averse thinking of reasons why not to invest.

Various government agencies have been set up to address this weak link in the innovation chain. The **National Research Council's** popular IRAP program has played an instrumental role in fixing this. Just over a decade ago, the provincial government announced a \$100M per year **Science and Technology Fund** but this was all talk and the few millions that were allocated to S&T commercialization soon fizzled.

Modest amounts (in the \$10m/annum range) were managed by B.C. organizations such as the **Science Council of B.C.**, a government agency, the **B.C. Advanced Systems Institute** (ASI), an "independent" non-profit Society, and **SEED Management**, a totally arms-length private for-profit venture. ALL three can point to success. Science Council can point to success stories like **Ballard Power, PMC Sierra, QLT Inc., Angiotech, MDA, Creo, Westport, Sierra Wireless, Spectrum Signal Processing** and many others which received their a large part of their startup capital from this source. The payback is measured by the economic impact in terms of jobs created and taxes paid. ASI has similar examples except that it's funding has also produced a direct break-even payback to ASI (from successful ventures) that allow the process to be perpetuated. SEED Management, at the money-making end of the scale, can point to both economic benefits and a real, tangible for-profit return on taxpayers' money. All three examples have worked within their mandates and objectives.

The Science Council has invested \$135M in 2,035 companies over a 23 period starting in 1978. Of this, \$68M was invested through its **TechBC** program. TechBC companies generated \$96M in revenue and created 1,100 jobs between 1991 and 2002. Between 1997 and 2001, these companies created \$18 in revenue for every \$1 in grant money received during the first four years of commercial production. One job was created for every \$4,900 in grant money received.

In the 12 year period starting in 1990, ASI invested \$12M in 77 companies. It has received cash returns of \$5M and still has holdings worth roughly \$5M (from all programs, including non-repayable grants).

The question that no one can seem to answer is why, as a province, we can't seem to seize this opportunity (i.e. by investing public funds) especially since we've shown that it does work in a number of different contexts!

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.

Originally, these CPCs were limited to raising \$750K. After legal and accounting fees, this didn't leave much for actually doing acquisition. Recently, though, the Exchange has permitted a combination of CPCs in order to up the ante. A good example of this is a recent pioneering effort by **David**

Raffa of Catalyst Corporate Lawyers. They combined three CPCs to provide a pool in excess of \$1.5M. Now we're talking!

The list has been updated with changes that occurred since the end of October (the last update).

New additions to the list are: **The Exchange Industrial Group Inc**, which is from Manitoba, and **Leonids Investments Inc.**, which is from Quebec.

Since the previous update, the following six companies have come to trade: **CJHC Capital Ltd.**, **The Exchange Industrial Group Inc.**, **Giantstar Ventures Inc.**, **Luxor Developments Inc.**, **Phoenix International, Inc.**, and **Ventaur Capital Corporation**.

The following 13 companies have been removed from the list because they have completed their QT's: **A.C. Global Capital Corp.**, **ADR Global Enterprises Ltd.**, **Arsenal Capital Inc.**, **Capalta Inc.**, **Carvelle Capital Inc.**, **CPL Capital Inc.**, **French Riviera Capital Inc.**, **Golden Valley Mines Ltd.**, **Holy Smoke Capital Corp.**, **Performance Property Capital Inc.**, **Tango Energy Inc.**, **TekWerks Solutions Inc.** and **Trinity Ventures Ltd.**

Check our [Capital Pool Corporation chart](#) (in .pdf format) for a complete list of the CDNX's CPC and VCP companies, thanks to **David Ing of Pacific International Securities**. This list is updated on a regular, e.g. monthly basis. It is now current to the end of December, 2002.

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

Local Events

Speaking of access to capital, this month's **Vancouver Enterprise Forum** is dealing head-on with this subject. The event is titled, "There is Money Out There". It will explore this assertion by listing local VCs and their funds available for new deals. In the past, the VEF's VC report card has provided some valuable, often confidential, insights into just who's placing money and where's it going. We'll also hear from two local companies that have raised Series "A" VC funding within the past year as well as from a US VC and ex-entrepreneur (is there such an animal?) very familiar with the Vancouver scene. This will take place on Tuesday evening, January 28th at Science World (see www.vef.org for more info).

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

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 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, 2002.

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Tech Futures is a bi-weekly column that focuses attention on new and emerging BC publicly listed technology companies.

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