NOVA SCOTIA
Department of Finance

Nova Scotia Tax Credit Review

Phase II Report - Appendices

Nova Scotia Department of Finance
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Appendix A: Background and Methodology

In the 1999/2000 Budget Address, the Minister of Finance stated that his department would complete a review of all provincial tax credit programs:

“Over the years we have developed many tax credits, tax expenditures, and rebates. We have tax rebates for fire trucks and new homes. We have tax credits for research and development and for buying a new piece of machinery. My department is now working on a report that will show the costs and benefits associated with each such measure. We will put them on the table for public comment. Tax Credits that have become tax loopholes will be closed.”

The completion of the Phase II Tax Credit Evaluation is the final step in meeting that commitment.

Phases of the Tax Credit Review

The tax credit evaluation process commenced in November 1999. After assessing the scope of the project, the evaluation team determined that the tax credit review would need to be carried out in two stages in order to allow for a proper evaluation. Phase I would include an analysis of the credits where immediate policy direction was required. The Phase I report was completed in March 2000 and included the following programs:

- Equity Tax Credit
- Film Industry Tax Credit
- Investment Tax Credit for Manufacturing and Processing
- Research and Development Tax Credit
- ISO 9000/ISO14000 Tax Credits
- HST rebates for the MUSH sector (municipalities, universities, schools and hospitals), Non-Profit Organizations and Charities.

The Phase I report included numerous recommendations that resulted in changes to the existing tax credit programs. Tax credit rates for the Film Tax Credit and M&P Tax Credit were adjusted. The Community Economic Development Program was extended to the end of 2003, and the ISO9000/14000 Tax Credits programs were set to end on December 31, 2000.

Even when evaluations did not result in specific policy recommendations, the evaluation process had several benefits. First, the evaluation process resulted in a valuable inventory of provincial tax credit programs. This inventory has provided a single source of information on the tax credit programs including the policy rational for the program, program costs, and estimated program benefits. The evaluation process also provided an opportunity for public to provide valuable comments on provincial tax credit program.

Work on the Phase II evaluations began in May 2000. It included the following credits:

- New Small Business Tax Holiday
- Equity Tax Credit (re-evaluation based on updated data)
- Labour-Sponsored Venture-Capital Corporations Tax Credit
- HST Rebate for Volunteer Fire Department
- HST Rebate for Printed Books
- New Home Construction HST Rebates

Evaluation Process

The evaluation process involved the following steps:

- Determining information requirements and compiling an inventory of available information.
- Identifying information shortfalls and taking steps to gather required information. This included gathering information from program participants through surveys and focus groups.
- Analysing economic impact where appropriate.
- Comparing program objectives to outcomes.
- Making recommendations based on the effectiveness of each program and the relevance of its objectives.Economic Impact Analysis

The economic impact analysis was conducted using the Nova Scotia Input Output System (NSIO). Impact simulations were performed on investment expenditures associated with the credit. If appropriate, the annual operations associated with the investment were analyzed. Investment expenditures are one-time expenditures and therefore have one-time impacts. As long as the company is in operation, impacts associated with annual operations occur yearly.

Impacts are reported for household income and employment (person-years) and provincial tax revenue (personal income tax and spending tax). Corporate income tax is not included. Impacts are also divided into three categories:

- Direct: Direct impacts are those that result directly from the company's expenditures on goods and services in Nova Scotia.
- Spin-off: Spin-off impacts are the sum of indirect impacts (caused by inter-industry transactions) and induced impacts (caused by household spending).
- Total. Total impacts are the sum of direct and spin-off impacts.

Financial cost-benefit analysis compares total estimated provincial government revenue to provincial government expenditures.

Tax System Context

Principles of Taxation

The Tax Credit Review focuses only on one part of the tax system, but is subject to the basic principles that should underlie any system of taxation - efficiency, effectiveness, and equity. The following is a definition of each principle and its application to the tax system.

Efficiency - A tax measure should not lead to waste and distortion in spending or production. The measure should be simple, easy to understand, predictable (does not change year-to-year unless clearly specified in advance), transparent (taxpayers can know the tax implications of their decisions before making them) and flexible (able to adjust to changes in the economy).

Effectiveness - The tax measure should achieve the desired result. Tax systems need to be integrated between levels of government and between corporate and personal tax systems so they are not working at cross-purposes.

Equity - A tax credit should treat “like” categories such as earned income and level of income the same. Differences based on income (different treatments for different levels), location (if higher costs, greater disparities) and age or other factors may be acceptable if they can be judged fair or equitable.

Tax Revenues and Credits

Taxation on personal and corporate income is used to raise revenues for the Province of Nova Scotia. The taxation system is also used to achieve economic and social objectives. One method to achieve these objectives is through the use of tax credits. Tax credits are provincial expenditures that act to reduce the amount of income tax payable.

Tax credits may be either refundable or non-refundable. Refundable tax credits allow a company or individual to receive the full amount of the tax credit, regardless of the amount of tax payable. A non-refundable tax credit reduces tax only up to the amount of tax payable.

Tax credit expenditures have tripled since 1995. It is projected that the value of personal and corporate tax credits will grow to $69.5 million in the 1999 taxation year. If left unchanged, this growth will continue and is projected to reach over $100 million within the next two years. Given these expenditures, it is vital that the government review tax credit programs to determine if these programs are meeting the objectives of government in a cost- effective manner.

The following table shows the annual cost to the Province, over the last 3 years, of the tax credits currently under review:

Table 1: Value of Provincial Tax Credits (Estimate March 2000, $Thousands)

Credit	1997 ($)	1998 ($)	1999 ($)
New Small Business Tax Credit	700	700	700
Equity Tax Credit	2,400	1,900	2,500
LSVCC Tax Credit	400	500	500
HST: New Housing Rebate	2,400	4,100	N/A
HST: Persons with Disabilities Rebate	200	200	200
HST: Printed Books Rebate	N/A	5,000	N/A
HST: Volunteer & Municipal Fire Department Rebate	17	36	126

Source: NS Department of Finance

Appendix B: NSB Survey Methodology

Survey instruments were mailed to 2500 Nova Scotia small businesses. The purpose of this survey was to provide the department with a better understanding of the small businesses sector in the Province and to determine the impact of the NSB Tax Deduction on recipient firms. A small business was defined as any Canadian Controlled Private Corporation registered in the province with 50 or fewer employees. The address information was gathered from the Nova Scotia Business Register (2000 addresses) and the New Small Business Tax Deduction Database (500 addresses).

Survey instruments were mailed in early August 2000 and responses were accepted until the end of September. There were 202 instruments returned 'undeliverable' resulting in a total of 2298 questionnaires reaching their destination. Of the total delivered forms, 738 were returned completed. This results in a response rate of 32 percent. However, of those 738, 296 of respondent businesses were not 'incorporated' businesses and so were not used in the analysis of the New Small Business Tax Deduction. Overall, 19 percent of instruments mail-out were used in the study. No follow-up was completed.

Table 2: Survey Response

Sample Drawn	2500
Known Invalid Addresses	202
Total Returned	738
Total Surveys Analyzed	442

Source: NS Department of Finance

Of the 2500 questionnaires mailed, 500 were sent to known NSB Deduction recipients, and 126 were returned from respondents who identified themselves as having received the credit. These respondents represent 7 percent of the total population of 1773 NSB Tax Deduction claimant businesses.

The results presented do not indicate causality.

Profile of Survey Respondents

Geographic Location

- The majority of firms surveyed (42 percent) were headquartered in HRM.
- Of firms that participated in the NSB program, 46 percent were located in HRM.

Industry Sector

• The service sector had the largest concentration of surveyed firms (38 percent) followed by retail (16 percent) and construction industries (12 percent).
• Of those firms that participated in the NSB program, the majority (58 percent) were in the service sector, followed by construction (16 percent) and retail (13 percent) industries.

Employment

• The following table displays the percentage of full-time equivalent employees in the last two taxation years for all firms and NSB Tax Deduction recipients:

Table 3: Full-time Equivalent Employees - NSB Tax Deduction

# F/T Employees	All Respondents	Tax Deduction Recipients
0	1%	1%
1	18%	26%
2-10	64%	60%
11-25	13%	12%
26-100	4%	2%
	100%	100%

Source: NS Department of Finance

NSB Tax Deduction recipients reported having only 1 employee more often than all surveyed firms.

The following table displays the proportion of payroll expenditures that companies had in their last year:

Table 4: Payroll Expenditures - NSB Tax Deduction

Last Years Payroll	All Respondents	Tax Deduction Recipients
$0	0%	1%
$1-100,000	51%	53%
$100,001-250,000	25%	21%
$250,001-500,000	13%	16%
$500,001-1,000,000	5%	9%
Over $1,000,000	4%	0%
	100%	100%

Source: NS Department of Finance

- The majority of firms surveyed (51 percent) had an average payroll less than $100,000. Another 25 percent had an average payroll between $100,000 and $250,000.
- There was no relationship between the number of people employed by the corporation and the geographic location of the corporation.

Location of Primary Markets

- 54 percent of surveyed firms had no sales outside of Nova Scotia in the previous year. For Tax Deduction claimants, 67 percent had no sales outside of Nova Scotia.
- 11 percent of all surveyed firms had between 75 percent and 100 percent of sales to markets outside Nova Scotia; 16 percent of Tax Deduction claimants had between 75 percent and 100 percent of sales to markets outside Nova Scotia.

Length of Time in Business

- The majority of firms surveyed have been in operation for over 3 years (77 percent), while 12 percent have been in operation for 2-3 years and only 10 percent of companies were in operation for less than 2 years.
- Results are similar for claimant companies: 72 percent of claimant companies have been in business more than three years, while 21 percent have been in business 2-3 years and 7 percent have been in business 1 year.

Start-up Financing

- There was not a significant difference in the use of financing from financial institutions or personal savings among firms receiving the credit.

Performance Measures

Employment

- As a group, respondent companies reported a greater number of full-time employment positions in the last two taxation years than at the end of the start-up phase.
- The greatest growth is evident where respondents reported having 11-25 employees. In the first year of the business, 5 percent of companies reported having 11-25 employees whereas in the last years of business this number is increased to 13 percent of companies reporting 11-25 employees.
- Firms that received the deduction were no more likely to report an increase in employment than respondent firms in general.

Profitability

- The majority of companies (55 percent) have reported that their business is more profitable now than it was at the end of their start-up phase.
- 42 percent of firms surveyed reported reaching profitability in the second year of operation.
- 64 percent of firms surveyed reported reaching profitability by the third year of operation.
- When comparing profitability in years one and two against profitability in the most recent year, businesses that reported being more profitable currently than at start-up were slightly more likely to have applied for the Deduction. Those businesses that reported being less profitable now than at start-up were more likely not to have applied for the Deduction.
- Businesses that reported becoming profitable in either year one or year two had more often applied for the tax credit.
- Those businesses that reported becoming profitable in year 7, or who were not yet profitable had more often *not* applied for the Deduction.

It is important to note that firms must report a profit in order to qualify for the NSB Tax Deduction. This would suggest that the claimant companies would more often report an improvement in profitability than would the entire population of companies, even in the absence of the tax credit.

Methodology

The survival rate study was completed using data from the Registry of Joint Stock Companies Database and the NSB Tax Holiday Database. The current status of all corporations with an incorporation date after April 18, 1986 was determined using the RJSC database. This included 34,355 corporations. Companies in revoke of non-payment for more than twelve months were assumed to be out of business.

The Department of Finance NSB Tax Holiday Database was run against the RJSC database to identify companies that had received the credit. Corporations were grouped by the year of incorporation. The percentage of corporations still in business was calculated for all corporations and for NSB tax deduction recipient corporations. The average number of years in business was calculated for all corporations and for NSB tax deduction recipient corporations.

Appendix C: ETC Background

The Equity Tax Credit Act

The *Equity Tax Credit Act* resulted from extensive public consultation in the early 1990's. A principle concern at this time was the availability of equity financing for Nova Scotia small and medium sized businesses. This lack of capital prevented entrepreneurs from starting new businesses and prevented existing companies from entering markets outside the province. This left the provincial economy less diversified and more dependent on public sources of capital.

The lack of capital for Nova Scotia businesses was also disconcerting given the amount of savings leaving the province in the form of RRSPs. It was estimated at the time that RRSP savings amounted to roughly $650 million annually.

The Government responded to these concerns by developing several tax credit programs to encourage Nova Scotia residents to invest in Nova Scotia business and to encourage Nova Scotia entrepreneurs to seek equity financing.

The tax credit approach was a departure from traditional government economic development programs. Tax credit programs were seen to have several distinct advantages over programs that involved direct investments by government:

- Professional fund managers and businesspeople would make the actual investment decisions. Government would only provide incentives to create pools of capital.
- Equity partners could provide a level of commitment, guidance, and support that could not be provided by government. The tax credit approach encourages entrepreneurs to develop valuable relationships with capital providers.

The *Equity Tax Credit Act* provides for the Equity Tax Credit (for investments in corporations, cooperatives and CEDIFs) and the LSVCC Tax Credit. The Equity Tax Credit and LSVCC Tax Credit programs are designed to meet the capital needs of company's of various sizes and sectors and to attract investments from a variety of investors.

Table 5: Equity Tax Credit

Investment Vehicle	Typical Size of Investment	Typical Type of Investment	Venture Capital Type	Typical Source of Funds
ETC	$10K to $200K	Small business in a wide range of sectors.	Informal	Family, Friends, 'Angels'
CEDIF	$200K to $750K	Small and medium sized business in the local community.	Informal & Formal	Community members, 'Angels', employees

LSVCC	$500K to $3 million	High valued-added industries.	Formal	General public, institutional investors

Source: NS Department of Finance

Community Economic Development Investment Funds

Community Economic Development Investment Funds (CEDIFs) are investment funds created by a community for the purpose of raising capital and investing in community-based businesses. The legislation enabling the creation of CEDIFs in Nova Scotia was introduced in 1994 as part of the *Equity Tax Credit Act*. Implementation of the program was delayed, however, until 1999 due to conflicts with the Nova Scotia *Securities Act*.

From an investor's perspective, CEDIFs provide advantages over a regular ETC investment:

- In addition to the 30 per cent tax credit, the investment is partially guaranteed by the Province of Nova Scotia. The guarantee is for 20 per cent of the original investment and only applies to funds serving communities outside Halifax, Dartmouth, Bedford, and Sackville.
- CEDIF investments are pre-approved holdings for self-directed RRSPs.
- The fund organizers are required to file an offering document with the Securities Commission, providing the investor with full disclosure of relevant facts.

The primary advantage of the CED model for fund organizers is that it is a better mechanism for raising large sums of money ($500,000 to $1 million). The fund organizers are required to file an offering document that enables the sale of shares through registered dealers to the general public.

CEDIFs can be classified into two main categories: blind pool funds and targeted investment funds. In a blind pool fund specific investments are not identified at the time the shares of the fund are offered, although the prospectus generally outlines the investment objectives of the fund. With a targeted CEDIF, a fund is formed to make a specific investment in a specific company. All details surrounding the investment are disclosed at the time the shares are issued.

Appendix D: Overview of Venture Capital in Nova Scotia

The term 'venture capital' refers to funds that are available to high-risk investments that offer the promise of above average capital appreciation. Venture Capital is also referred to as ‘patient capital’ since investments are made with a longer-term view. Investment activity is not restricted to particular sectors, although the majority of funds tend to be directed towards high value added industries such as manufacturing and technology.

Venture Capitalists typically invest in new or relatively new companies that show the promise of producing exceptional returns. These companies are often at a stage of rapid growth where large influxes of capital are required to develop a product or technology. At this stage of development, a company has few funds available for payment of dividends and the return to the venture capitalists comes from the appreciation of the investment in the target company. This gain is eventually realized when the venture capitalist ‘exits’ the investment by, among other strategies, selling their shares or completing an initial public offering.

A principle distinguishing characteristic between venture capital and other forms of financing is the shift in ownership. Because venture capitalists own part of the company (are not “lenders”) they achieve returns through the growth of the company. They can loose their entire investment if the company does not grow, which is a very strong incentive to provide continued hands-on support to the entrepreneur.

Venture Capital Investments

The venture capitalist will normally take an ownership or equity position in the company and will actively participate in the management of the firm. The venture capitalist may ‘follow-up’ the initial investment when additional equity is required and when further investment is justified. Venture capitalists consider potential exit strategies prior to the initial investment, despite the fact that it may be several years before an exit takes place.

When discussing venture capital, it is useful to consider the development of a company as taking place over several distinct phases:

- **Seed stage**: An entrepreneur has developed a promising technology or product and requires capital and expertise to develop a beta of the product.
- **First Stage**: The company is established and earning some revenue from one or two major customers but is not profitable. The company requires capital and expertise to refine the beta.
- **Second Stage**: The company is modestly profitable and is expanding its customer base. The product is not fully refined and marketing expertise is required.
- **Expansion Stage**: The company is showing strong revenues and profits. The product is fully developed and is gaining market share.

The earlier the venture capitalist becomes involved in the development of the company the greater the potential returns and the greater the risk. Corporate venture capitalists in Canada tend to invest in later stage projects (first and second stage as described above) and tend to avoid seed stage investment.

In nearly every instance, however, venture capitalist will seek investment projects with high growth potential and which have a sound exit strategy.

Benefits of Venture Capital

To The Economy

Although formal venture capital investment activity accounts for a small percentage of total private sector investment, venture Capitalists provide a vital economic function by financing emerging companies and industries. Although the majority of venture capital projects fail or are only marginally successful, those that succeed diversify the economic base of the community and provide an outlet for innovative business ideas.

To the Entrepreneur

Venture capitalist can provide much more than money to the entrepreneur. The venture capitalist can provide management expertise, direction, access to industry leaders, and industry experience. Venture capitalists carefully select investment opportunities and are prepared to invest time and effort in the development of the company.

Venture Capital and Economic Development Capital

It is important to note that the term 'venture capital' refers to a specific kind of business investment activity. Investment in business can take many forms: loans for new plant and equipment, establishments of branch plants, or business start-ups. Although all of these activities involve risk and capital, they are not necessarily venture capital activities. This is an important distinction to make. By roughly equating all forms of business investment activity with 'venture capital', it is easy to develop an unrealistic view of the role of venture capital in economic development.

Venture capital should be distinguished from *economic development capital*. Economic development capital refers to investment activity where there are significant investment mandates apart from the return on investment, including regional development or employment goals.

A principal difference between *venture capital* and *economic development capital* is the level of non-financial support. Venture capitalists provide a vital combination of money and expertise that is generally not available from other capital providers. For example, if an entrepreneur were to develop a promising new software application, the venture capitalist would provide the funds and the technical and management expertise required to commercialize the product.

It is important to make this distinction because economic development issues are often misdiagnosed as a shortage of capital, when in reality access to management and technical expertise may be the problem.

Table 6: Venture Capital and Economic Development Capital

Characteristics of the Capital Provider	Venture Capital	Economic Development Capital
Source	Private venture capitalists	Governments
Investment Mandates	ROI	ROI, Employment, Regional Development
Investment Approach	‘Rifle’; Specific Industries; discriminating; larger investments in fewer projects	‘Shot-gun’; smaller investments in many projects
What is provided?	Capital; strong guidance and technical expertise	Capital; minimal guidance

Unfortunately, the traditional LSVCC model implies these funds have significant investment mandates apart from return-on-investment, which tends to confuse the issue of venture capital. In practice, LSVCC funds act as any other venture capitalist and focus entirely on those projects that offer the best returns.

Informal Venture Capital and Formal Venture Capital

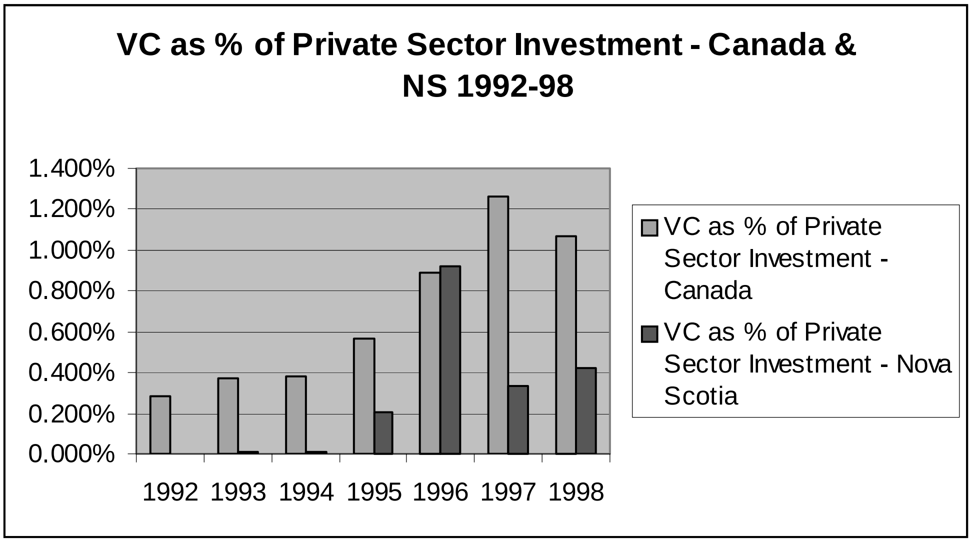
A further distinction can be drawn between 'formal' and 'informal' venture capital activity. Formal venture capital refers to the activities of venture capital corporations and their professional managers. Informal venture capital refers to private venture capitalist or 'angels' who operate behind the scenes in established venture capital markets. LSVCCs are a predominate fixture in formal venture capital in Canada.

Venture Capital Activity in Nova Scotia and Canada

Formal venture capital activity accounts for a small portion of total investment in Canada and in Nova Scotia. From 1992 to 1998, formal venture capital investment accounted for 0.73 percent of private sector investment nationally and 0.29 percent in Nova Scotia.

The following graph displays venture capital investment as a percentage of total private sector investment for Canada and Nova Scotia.

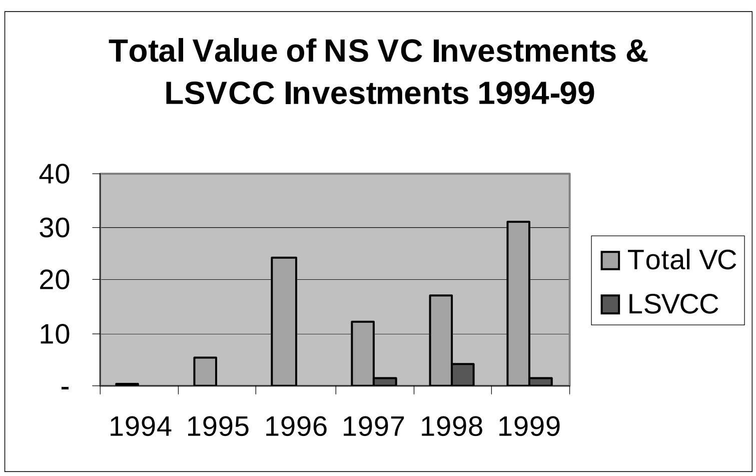
Figure 1:Venture Capital as a Percentage of private Sector Investment – Canada and NS 1992-1998



Source: Statistics Canada Private and Public investment in Canada; MacDonald & Associates

Venture capital investments have grown as a percentage of total private investment since the early 1990's both in Nova Scotia and nationally. The growth in formal venture capital activity in Nova Scotia since 1995 is largely attributable to non-LSVCC venture capital activity. The following table compares provincial LSVCC venture capital financing to total formal venture capital activity:

Figure 2: Total Value of NS Venture Capital Deals and LSVCC Deals 1994-99



Source: MacDonald & Associates; NS Dept of Finance

Appendix E: Provincially Registered LSVCC Funds and Dates of Registration

- Working Ventures Canadian Fund Inc. (October 4, 1994)
- Canadian Medical Discoveries Fund Inc. (October 10, 1995)
- Retrocom Growth Fund Inc. (December 6, 1996)
- Triax Growth Fund Inc. (November 14, 1996)
- Canadian Science and Technology Growth Fund Inc. (September 26, 1997)

Appendix F: LSVCC Investments in Nova Scotia

The Maritime Beer Company Incorporated, Dartmouth (Working Ventures)

$1,335,000 (March, 1997)

The Maritime Beer Company started as a craft microbrewery located in the Burnside Industrial Park. The company was formed with financing from Working Ventures and a group of local investors. The company struggled and filed for bankruptcy in 1999.

Chitogenics Incorporated, Halifax (Working Ventures)

$1,500,000 (March, 1998)

Chitogenics manufactures and develops biomaterial products for the post-surgical anti-adhesion and wound care treatment markets. The company's products are derived from a patented biopolymer material called N,O-caboxymethylchitosan ("NOCC"), a polysaccharide that forms the basis for a number of medical and non-medical applications. Preliminary studies indicate that Chitogenics' products are more cost effective and efficient than what is currently available on the market. Chitogenics currently employs 5 people. Many of the products are still in the commercial development stage.

Nova Scotian Crystal Limited, Halifax (Working Ventures)

$700,000 (March 1998)

Nova Scotian Crystal is Canada's first and only mouth-blown, hand-cut crystal company. Founded in October of 1996, it has recruited an experienced team of craftsman who had long careers at Waterford Crystal in Ireland. The crystal is manufactured directly at the company's waterfront facility in Halifax and includes a walk-in showroom. The company employs about 32 people.

Salter Street Films Limited, Halifax (Triax Growth Fund)

$2,000,000 (May 1998)

Salter Street Films is a fully integrated Halifax based film company. Salter Street has been recognized for its strong idea development, quality productions, and widespread distribution. These skills have enabled the company to create such notable series as, "This Hour Has 22 Minutes", "Emily of New Moon", and "El Mundo de Lundo". The company employs approximately 40 full time people and generated film production of approximately $15 million in Nova Scotia in 1999.

Salter Street New Media Limited, Halifax (Triax Growth Fund)

$1,500,000 (May 1999)

Salter New Media is one of Canada's fastest growing new media companies. Its mission is to develop and produce original branded content and services for the Internet. Since October 1998, the company has incubated and launched five web services. Salter New Media has also entered into strategic alliances with well-known Internet players, such as E*Trade Canada, AOL Canada and ChaptersGlobe.com.

MedInnova Partners Incorporated, Halifax (Canadian Medical Discoveries Fund)

$6,550,000 (October 2000)

MedInnova Partners Inc. is a technology incubator company that identifies and develops novel, patentable technologies that meet large, unmet needs in the life and health sciences marketplace. These technologies will lead to medical products and/or provide platform technology in drug discovery or health care delivery.

Trakonic, Sydney (Canadian Science & Technology Growth, Working Ventures)

$1,250,000 (Canadian Science & Technology Growth, December 2000)

$1,000,000 (Working Ventures, December 2000)

Trakonic provides products and services for remote security monitoring over Internet Protocol (IP) networks. Founded in 1997, Trakonic is a world leader in providing internet infrastructure solutions for the secure delivery of alarms and video using a variety of internet enabled devices.