

Submission to
THE ALBERTA INNOVATION CAPITAL
WORKING GROUP

by

BioAlberta



Alberta Clean Technology Industry
Association



TECHINVEST Alberta



Nanocluster Alberta



“Alberta is attracting and retaining less than its proportionate share of both public venture capital and investments through private venture capital and angel investing. In 2018, there was a total of \$20.1B raised by Alberta businesses. This represents a significant decline from prior years which saw \$63.8B raised in 2017 and \$53.2B in 2016.”

(2019 - Alberta Securities Commission)

EXECUTIVE SUMMARY

The struggle to access investment capital for Alberta companies in either established industries or to fund new opportunities is well known. We receive roughly one per cent of the venture capital invested across Canada, while the likes of Ontario and B.C. receive the lion’s share. This historical fact was true even for oil and gas, which in its infancy faced similar hurdles most notably for equity financing.

This changed when the province of Alberta came to understand the potential that oil and gas could deliver. It responded with new financing, fiscal and policy tools—Junior Capital Pools among them—to accelerate industrial growth and exploit new business opportunities.

Alberta has a rich history in developing public/private investment models that can unleash new industries and kick start innovation within business sectors. Whether government unlocked the oil sands through AOSTRA, commercialized Canadian Oil Seed (Canola), or backed the Alberta Machine Intelligence Institute, those investments all served to raise the living standards and incomes at home and across Canada.

Today, Alberta canola-based products are found around the globe, clean technologies are nurtured alongside oil sands development, and we have begun to grow a life sciences sector and develop high technology companies built on robotics and machine learning.

While Albertans have benefitted from the fiscal framework that enabled more traditional industrial growth and commercialization, they have yet to realize the payback from investment in scientific research across our high technology and life sciences sectors. These opportunities promise to raise quality of life by producing a tomorrow where science is translated into improved patient care and outcomes, and where Alberta will claim its place as a world leader and exporter of clean technology.

The one barrier that continues to hamper progress remains access to capital. This financing is particularly difficult for technology-based ventures. Like Amazon and Tesla who for years reinvested all profits into technology development and growth, many Alberta based tech companies struggle while profits are used to validate technology and seek access to new markets.

Recent capital market assessments show Alberta is falling behind the rest of the country in terms of technology-led business growth.

“The venture capital (VC) market in Western Canada has for decades lagged behind Ontario and Quebec... Over the past two years, Western Canada’s share of VC market activity has fallen to its lowest point since 2003. Alberta, in particular, has seen investment fall dramatically, while the Vancouver technology sector remains a bright spot...”

(State of Venture Capital in Western Canada 2016, WD)

While there may seem to be investible money, access to that cash pool continues to focus on the natural resource industries. This key issue remains as an impediment to future economic growth.

Our goal is to highlight fiscal framework changes needed to improve deal flow and capital access for Alberta’s benefit. To that end, we would be pleased to work together with you to shape and adapt policies to accomplish this goal.

Our desire is to provide the Innovation Capital Working Group with an understanding of the issues impacting business development for our member companies. The following ten recommendations spanning four categories were collaboratively prepared by industry associations whose experience in business development was combined with pooled input direct from members.

Target public funding to support pre-revenue venture technology de-risking (TRL 1-7)

The decision to terminate the Provincial component of SRED incentives and to reduce funding through Alberta Innovate has reduced the availability of funding for technology commercialization. As an incentive, this change moves Alberta from middle of the pack to the bottom among provinces, alongside the NWT, PEI and Nunavut.

- Review the options available for supporting pre-revenue technology-based ventures.

Activate private investment in (pre-public) early stage ventures.

Elimination of the Province’s Angel Investor Tax Credit removed a meaningful front-end incentive for equity investment in pre-revenue ventures present in BC and Saskatchewan, and in over 24 US states¹. A back-end incentive for investment in early-stage ventures is capital gains deductibility (e.g. for gains during an IPO or acquisition). In the US, capital gains on equity held in a small business for more than 5 years qualifies for 100% tax exclusion up to \$10 million. In Canada this is limited to ~\$860,000 per person². BC has topped this up with a Small Business Venture Tax Credit of up to \$120,000 in each calendar year³. The UK’s Seed Enterprise Investment Scheme (SEIS) could be a helpful model.

- Explore a mix of front and back-end incentives with proper investor/venture eligibility constraints and less red tape to help more Albertans invest in emerging technology ventures.

¹ <https://www.startups.com/library/expert-advice/angel-investor-tax-credits>

² <https://www.taxtips.ca/smallbusiness/capitalgainsdeduction.htm>

³ <https://www2.gov.bc.ca/gov/content/taxes/income-taxes/personal/credits/venture-capital>

Mobilize private investment in public ventures.

Novel equity models developed like Junior Capital Pools, Canadian Capital Pools and Flow Through shares have been used to build our minerals and oil and gas sectors to global scale. To date, these have offered limited capital to technology-based ventures.

- Adjust program rules to cater to high technology companies in Alberta.

Increase public capital for investment in Alberta technology ventures.

Examine how AIMCo could use a small percentage of set-aside to support the new technology economy. and provide AIMCo with the mandate to do so. Building on the successes of Alberta Enterprise Corporation's Fund of Funds model, explore increasing the capital allocation to AEC so it can engage in themes including Life Sciences, AgTech, Aim and others. Incent growth of Alberta's corporate venture capital by matching investment in Alberta based corporation's' venture capital funds.

- Provide AIMCo with a mandate to support new technology.
- Increase capital allocation to AEC.
- Match investment in Alberta corporations

“Venture capital investment across Canada is at an all-time high, but Alberta only captures one per cent of the total dollars invested. \$2.2B invested across Canada in the first half of 2019 but only \$25M in Alberta.”

(Canadian Venture Capital Association - August 16, 2019 - CBC)

BRIDGING THE TECHNOLOGY GAP

G7 countries describe stages of technology development and commercialization based on Technology Readiness Levels of Innovation TRLs. The following chart provides a brief description of these nine levels of readiness. It summarizes the three major regimes of innovation and funding/financing that aligns with the risks and rewards of each major groupings of TRLs and the investment dollars required per new product/project/opportunity with examples (in red) of what has been and is currently available in Alberta, and as assessment of the strengths of such pre 2019 and 2020+.

<p>TRL 9 Actual Technology Proven Through Successful Use in an Operational Environment</p> <p>8 Actual Technology Completed and Qualified Through Tests and Demonstrations</p> <p>7 System Prototype Demonstration in an Operational Environment</p> <p>6 System/Subsystem Model or Prototype Demonstrated in a Simulated Environment</p> <p>5 Component Validation in a Simulated Environment</p> <p>4 Component Validation in a Laboratory Environment</p> <p>3 Analytical and Experimental Critical Function and/or Characteristic Proof-of-Concept</p> <p>2 Technology Concept and/or Application Formulated</p> <p>TRL 1 Basic Principles Observed and Reported</p> <p><i>*from ALOPEX Management Consulting</i></p>	<p>Level-3 Investments {\$10M - \$100+M}: Lower risk; driven by Business Case; large \$s; modest risks. Public markets, large-scale Private Equity, AIMCo, etc.</p> <p>Level-2 Investments [\$1M to \$20M]: Moderate risks. Business Case starts to make sense; can attract some VC-type capital but with a 3-5 year exit. Gov't Grant/Debt type agencies (SDTC, SIF, ERA, etc.) key.</p> <p>Level-1 Investments [<\$1M]: High risk; decisions cannot be made on a Business Case basis as difficult/impossible to justify. Need material (equal) cost sharing between private and public sector (e.g., SR&ED, (US)-SBIR, etc.)</p>
<p>Alberta Performance by Innovation Level as a G7 Jurisdiction</p> <p>TRL1-4: A pipeline of Innovation at TRL1-4 cannot occur in any material way if funded solely by private sector – risk is too high and on success, much of the benefits accrue to the community. Funding MUST be shared (equally).</p> <p>TRL5-7: Private sector starts to take on the majority of funding (>60%) as scientific risks now reduced and engineering (scale-up) risks more manageable.</p> <p>TRL7-9: Private sector drives most of funding and financing with access to public markets, private equity and pension funds.</p>	<p>Alberta</p> <p>Pre-2019: Good 2020+: Weak</p> <p>Pre-2019: Fair 2020+: Weak</p> <p>Pre-2019: Weak 2020+: Weak</p>

A major issue in Alberta and Canada, is that it is near impossible to raise private capital investment (other than family, friends and perhaps some angel investors) in TRL 1-7. The business case argument for investment is difficult to make because: technology risks (scientific and engineering risks) are too high, and market risks are extreme.

The *only* way to get from TRL 1 to TRL 7 is with shared private sector (entrepreneur-driven) and public sector sharing of risks and rewards. This model allows the entrepreneur/company to get the new product, while the public sector get the jobs, bricks-and-mortar, future tax revenue, employment of its university and college graduates and credibility as a G7 jurisdiction.

Though grant style co-funding can try to mitigate the risks enough to simply move forward and reduce risk it is generally NOT business case driven. So, what is the simple driver for public sector grant funding of TRL 1-7 in Alberta:

- (1) it is (near) neutral to Treasury at Alberta's SR&ED level of 10 per cent,
- (2) unless there is a tech/innovation ecosystem, the jurisdiction is not aligned with other G7 jurisdictions advancing forward on technology-intensive and emerging sectors.

Aggressive venture capital funding at a seed level may start at TRL 5 but material money only starts to become available at TRL 6/7.

Recommendation: Review and implement the best tools to close the gaps from TRL 1 to 7.

Front-End vs. Back-End Incentives for investors

Most incentive initiatives in place in Canada to stimulate angel, seed or venture investments have focused on de-risking investors at the front-end of investment commitments. For example, tax credits committed to a certain percentage of the total investment made reduces risk up-front. Some analysts believe back-end incentives (enhanced returns when an investor exits) have the potential to do more.

The elimination of Alberta's Angel Investor Tax Credit removed a meaningful front-end incentive for equity investment in pre-revenue ventures that is present in BC and Saskatchewan, as well as in over 24 US states including New York, Oklahoma and Georgia⁴. A back-end incentive for investment in early-stage ventures could be achieved through more generous capital gains deductibility, aka tax relief, on future returns that would only be realized during a capital event (e.g. IPO or acquisition). In the US, Internal Revenue Code Section 1202 (the Small Business Stock Gains Exclusion) states that any purchase of small business stock after September 27, 2010, qualifies for 100% tax exclusion of any capital gains up to \$10 million, as long as it is held for at least five years. In Canada, the Lifetime Capital Gains provision is limited

⁴ <https://www.startups.com/library/expert-advice/angel-investor-tax-credits>

to ~\$860,000 per person⁵. In BC, this is topped up with a Small Business Venture Tax Credit of up to \$120,000 in each calendar year⁶.”

A 2017 European Union review⁷ of 46 tax incentives designed to promote venture capital and business angel investment in 36 countries ranked the United Kingdom's Seed Enterprise Investment Scheme (SEIS) highest. “SEIS provides individuals making investments in young companies with an upfront tax credit, a capital gains tax deferral for reinvestment, a capital gains tax exemption for chargeable gains realized on disposal and loss relief on more favourable terms than the baseline tax system for capital losses realized on disposal. SEIS uses a combination of venture age, size and specific sector exclusions to target entrepreneurial firms. It restricts the participation of related parties (aka company insiders), but has introduced allowances for business angels. It targets newly issued ordinary share capital, imposing a maximum investment value attracting tax relief and a minimum holding period. In terms of administration, SEIS is administered on a nondiscretionary basis and is subject to transparent annual monitoring of fiscal costs”.

SEIS Eligibility Criteria⁸ for Investors:

- investors can place a maximum of £100,000 in a single tax year, which can be spread over a number of companies.
- Investors cannot control the company receiving their capital, and must not hold more than a 30% stake in the company in which they invest.
- Investors can receive up to 50% tax relief in the tax year the investment is made, regardless of their marginal rate.

SEIS Eligibility Criteria⁹ for Ventures:

- A company can raise no more than £150,000 in total via SEIS investment.
- The company seeking investment must be based in the UK, and have a permanent establishment in the British Isles.
- The company must have fewer than 25 employees. If the company is the parent company of a group, that figure applies to the whole group.
- The company must be no more than two years old.
- The company must have assets of less than £200,000.
- The company has to trade in an approved sector – generally not in finance or investment, for example, a property company can't raise capital through SEIS.

⁵ <https://www.taxtips.ca/smallbusiness/capitalgainsdeduction.htm>

⁶ <https://www2.gov.bc.ca/gov/content/taxes/income-taxes/personal/credits/venture-capital>

⁷ https://ec.europa.eu/taxation_customs/sites/taxation/files/final_report_2017_taxud_venture-capital_business-angels.pdf

⁸ <https://www.seis.co.uk/about-seis>

⁹ <https://www.seis.co.uk/about-seis>

***Recommendation:* Examine how fiscal tools could be used to enhance returns to venture investors in a way to attract more inflow of capital to Alberta's industries, especially, technology-based companies.**

Alberta Junior Capital Pools

A junior capital pool (JCP) is a corporate structure whereby companies can issue shares to the public before actually establishing a line of business. The purpose of such a capital structure was to provide an easy way for early-stage companies to raise capital. With a minimum investment from founders of \$100,000, the junior capital pool company could get a listing and exposure to public markets, providing them with the additional equity needed to launch.

This novel form of "start-up" financing was first invented in Alberta, largely fueled by speculation in the province's burgeoning oil & gas industry. Because this capital structure is a legal concept as much as a financial one, JCPs currently only exist in Canada on Toronto's TSX Venture Exchange.

Say you are founding a company that plans to explore and extract oil from a newly discovered reserve — but that you have not yet begun drilling and have not yet sold a single barrel of oil to the market. A JCP allows its founders to put up some of their own money and then list the company as a publicly traded entity on a Canadian exchange even while the venture is still in the planning phases. Because there is no proven revenue stream yet, capital pool companies are usually considered very risky investments.

A junior capital pool company (JPC) is a particular type of CPC initially created by the Alberta Stock Exchange. Since its inception, the capital pool program has listed over 2,400 capital pool companies, and as of October 23, 2015, there were 130 companies listed on the TSX Venture Exchange (TSX-V) Capital Pool Company List. The JPC is, essentially, a clean shell corporation with no assets other than cash, and which has not yet commenced business operations.

Source: Investopedia

Canadian Capital Pool Program

As the public venture capital marketplace in Canada, TSX Venture Exchange provides growth companies with access to capital and offers investors a venture investment market with comprehensive compliance standards. A unique listing vehicle, the Capital Pool Company (CPC) program provides an alternative, two-step introduction to the capital markets. The CPC program introduces investors with financial market experience to entrepreneurs whose growth and development-stage companies require capital and public company management expertise. Unlike a traditional IPO, the CPC program enables seasoned directors and officers to form a Capital Pool Company with no assets other than cash and no commercial operations, list it on TSX Venture Exchange, and raise a pool of capital. The CPC then uses these funds to seek out an investment opportunity in a growing business. Once the CPC has completed its qualifying

transaction and acquired an operating company that meets Exchange listing requirements, its shares continue trading as a regular listing on TSX Venture Exchange.

Source: TSX

Historically, these tools have seldom been used to support technology companies in Alberta.

Recommendation: Adjust program rules to better cater to high technology companies in Alberta.

AIMCo

AIMCo's mandate has been designed to maximize returns on investment. As a result, investments in high technology areas have been seen as too risky for their portfolio. However, in two successive provincial budgets (2012-2015) AIMCo was directed to set aside 3% of their investment funds for "innovative" investments. This set-aside has not visibly resulted in improving the economy through interests in Alberta's emerging high technology businesses.

In AIMCo's 2013 annual report, justifying the organization's investments in Australian forests (\$409.5 million in farmland and forests) the following statement is found:

"Most of the capital we manage will meet client obligations decades into the future. With that time horizon in mind, we can target investments with erratic or limited short-term returns, but a superior long-term payoff. AIMCo employed this strategy when it acquired the timber assets of Great Southern Plantations in Australia in 2011."

Even with this justification of investing in projects with erratic or limited short-term returns, but with superior long-term payoff, AIMCo has never viewed Alberta's high technology industries that way.

Recommendation: Examine how AIMCo could use a small percentage of set-aside to support the new technology economy in Alberta and provide AIMCo with the mandate to do so.

Alberta Enterprise Corporation/Separate Fund from AIMCo

Returns have been flowing back to the Alberta Enterprise Corporation from investments in funds for about the past four to five years. As projected, these returns were to increase year over year for about 10 years. The fund of funds model, for all intents and purposes, seems to have been successful. However, if this vehicle is to be truly an economic development tool, which it originally was designed to be, the corporation's reach and mandate ought to be expanded, as it has yet to invest in a true Life Sciences Fund.

A number of Albertan corporations have begun placing investments in Venture Capital funds, including Suncor and Cenovus' EVOK Innovations (which recently invested in Alberta-based VEERUM), and the multi-company Natural Gas Innovation Fund, whose investors include CNRL, Tourmaline and ATCO. These VCs are focused on investing in technologies that can be commercialized to benefit the competitiveness of the investing companies, and not solely on successful exits by the VC fund and engage internal staff in the investment reviews. These helpful models can stimulate both the innovation that supports Alberta's companies, and uptake of novel Albertan-developed technology by these companies.

***Recommendation:* Increase capital allocations to AEC for new investments.**

- **Increase capital allocations to AEC for new investments**
- **Direct it to expand its investment to Life Sciences and other sectors not yet addressed**
- **Incent growth of Alberta's corporate venture capital by matching investment in Alberta-HQ'd corporations' venture capital funds.**
- **To avoid mandate conflicts, perhaps a separate fund could be created to invest funds extracted from AIMCo or another source to be able to make direct investments. Perhaps, AEC could manage a small fund for innovative investments sourced from AIMCo assets.**

Alberta Health Services (AHS)

Every year, AHS invests in the development of new science or technologies that may have future promise to improve patient care. However, these investments risk being "stranded" because there has been no integrated strategy or vehicle to assess the commercialization potential of these technologies and help get them to market. The principals of these projects are largely left on their own to commercialize these resultant technologies. The innovation ecosystem is then left to provide whatever support may be currently available for them. In some cases, the required bridge from lab to market is too long for the ecosystem to remedy the situation.

***Recommendation:* Re-profile a portion of research funding from AHS to support commercialization and develop a companion initiative to enable every research project, where applicable, to be evaluated for commercialization potential and provide seed funding to leverage private money.**

Flow-Through Shares (FTSs)

Certain corporations in the mining, oil and gas, and renewable energy and energy conservation sectors may issue FTSs to help finance their exploration and project development activities. The FTSs must be newly issued shares that have the attributes generally attached to common shares.

Junior resource corporations often have difficulty raising capital to finance their exploration and development activities. Moreover, many are in a non-taxable position and do not need to deduct their resource expenses. The FTS mechanism allows the issuer corporation to transfer the resource expenses to the investor. A junior resource corporation, in particular, benefits greatly from FTS financing.

The FTS program provides tax incentives to investors who acquire FTSs by allowing:

- deductions for resource expenses renounced by eligible corporations; and
- investment tax credits for individuals (excluding trusts) on resource expenses in the mining sector that qualify as flow-through mining expenditures.

The Canada Revenue Agency (CRA) reviews all FTS arrangements and audits monitor the program.

Most tech only VCs have never used flow through shares and this is a barrier to them looking at an Alberta deal. This reduces access to strategic investors and their networks, and with a shrinking supply of local investors aware of flow-through shares, this may put downward price pressure on Alberta valuations and reduce entrepreneur bargaining power, causing early stage companies to leave.

Recommendation: Adapt FTS concept to an “Investor Tax Credit” for tech industries; waive expensive audit requirements and reduce valuations to match supply of strategic capital.

Intangible Assets, Insurance and Royalty Initiative

Structure a new royalty program that enables the purposeful commercialization of technology to ‘root’ these companies and their derivatives (investment, employment, etc.) here in Alberta. This can be done without any special investment or subsidies, but rather a new regulatory framework that would serve as the catalyst for financing the commercialization of technologies.

This would allow the billions of dollars already spent in research and development in the province to be more successfully commercialized and, consequently, increase the conversion rate of that investment into long-term, meaningful economic outcomes. A new royalty structure would drive new revenues directly into provincial coffers.

The Plan would call for the establishment of a regulated insurance program, similar to CMHC or WCB but applied to the commercialization of technology.

The plan would be based on three key components.

1. **Intangible Asset Development at an Investment Grade Level.** International accounting standards now require intangible assets to be identified and placed on corporate balance sheets as these assets have measurable value, generate revenue, and are to be managed constructively. The international standard (IAS-38) for identification and valuation of

intangibles was adopted by the Chartered Professional Accountants (CPA) Canada in 2011. While most general accounting practitioners have only just begun to apply these rules, it is now possible to develop intangible assets and use such assets as collateral for financing the commercialization of technology. It would be the goal of the Plan to develop the highest quality (e.g. reasonable level of assurance) of intangible assets which would be put forward as collateral.

- 2. Intangible Asset Insurance Corporation (IAIC).** The IAIC would be similar in nature to what already exists in the housing market where financial safeguards (e.g. CMHC insurance) are utilized by financial institutions so that any defaults by a mortgage holder does not put a financial institution at risk. Similarly, because intangible assets can be capitalized on a balance sheet under the IAS-38 accounting standards, these can become collateral and be insured for the financing that is made available by conventional lenders. Insured financing would address a major barrier to financing the commercialization of technology in Alberta. Premiums would be generated and paid to IAIC as a percentage of the financing issued. Actuarial tables which would reflect an array of identified risk-factors by industry sector would specify premium level for each application. IAIC would be self-funded.
- 3. Alberta's 21st Century Royalty Program.** Under the insurance program and the financing extended by financial institutions to companies seeking to commercialize their technologies, a small royalty would be applied to the intangible assets held as collateral. The royalty represents a 'top line' calculation which can be measured and captured. While the financing may have a relatively short term, the royalty itself would remain a permanent condition, even if the intangible asset were to be licensed into foreign markets, the royalty would still apply and, ideally, continue for the life of that asset. In contrast, when intangible assets leave Alberta today (i.e. through the sale of small and medium sized enterprises to foreign interests), there is no way to capture any percentage of the continued revenue stream. There are several variations on how the royalty program could operate and the specific royalty rates that could apply. The effect of applying a royalty across thousands of different technologies and their derivative applications would achieve a deep level of diversification in Alberta, likely in less than a decade.

Recommendation: Undertake due diligence on the Plan model with consideration to its applicability to Alberta.

Alberta RRSP and TFSA eligible investment tools

Create an Alberta fund (RRSP and TFSA eligible) that can address the challenge of accessing capital for start-ups, et al. The key, though, will be setting this up in a manner where funds can be created and accessed as required.

Recommendation: Assess how Alberta could leverage federal regulations and legislation on RRSPs and TFSAs to attract the development of venture capital pools.

Scientific and Research Experimental Tax Credits (SRED)

The Alberta Budget of October 24, 2019 ended the Alberta SRED tax credit which complements the Federal SRED. At a time when Alberta is in challenging circumstances, this is a blow to the innovation wellspring that creates multiples of jobs and economic activity, impacting investment in R&D across industrial sectors, which threaten jobs and competitiveness into the future.

As mentioned in the summary, the revision of the SRED incentive will drop Alberta from middle of the pack to the very bottom in terms of availability of public funding for pre-revenue technology commercialization, on par with PEI (population of 157,000). For Canadian-Controlled Private Corporations (CCPCs) below certain taxable capital limits, the net SR&ED rate in Alberta will drop from 41.5% (combined Federal + Provincial) to 35% back on expenditures. The 35% Federal credit will remain fully refundable (i.e. cash-back).

For publicly traded companies, non-CCPCs, and CCPCs exceeding \$50M in taxable capital, the impact of the change will be harder felt. These companies will see their net SR&ED rate in Alberta drop from 23.5% (combined Federal + Provincial) to 15% back on expenditures. Unfortunately, with the elimination of the Alberta SR&ED program, the credits awarded will be solely non-refundable (i.e. credits will be applied against taxes owing).

For a start-up, early-stage, or non-taxable mature company, modest, stepped reductions in corporate income tax rates, as now proposed in the Alberta Budget, will not incent innovation because no taxes are being paid as all profits are being reinvested in growth. In contrast, Alberta's refundable \$400k credit to a company represents 4-6 STEM employees, who can then provide the nucleus of an innovation program. We have observed that such employment is a frequent corollary of earning the refundable credit.

Although corporate budgets are made on expectations of SRED credit success, the timing is such that the SRED credit typically helps to fund the next year's innovation budget. This means that a company by definition always has "skin in the game" for these R&D projects that frequently span a number of years, requiring long-term decisions.

Foreign-controlled corporations and other corporations not eligible for CCPC status					
Provinces	Provincial credit rate	Provincial credit refund?	Federal credit rate	Federal credit refund?	Combined credit rate ^a
Manitoba	20%	Yes	15%	No	27.75%
New Brunswick	15%	Yes	15%	No	27.75%
Newfoundland and Labrador	15%	Yes	15%	No	27.75%
Nova Scotia	15%	Yes	15%	No	27.75%
Yukon ^b	15%	Yes	15%	No	27.75%
Quebec ^c	14%	Yes	15%	No	26.90%
Ontario ^d	8.0% + 3.5%	Yes/No	15%	No	24.80%
Alberta (pre-budget)	10%	Yes	15%	No	23.50%
British Columbia	10%	No	15%	No	23.50%
Saskatchewan	10%	No	15%	No	23.50%
Ontario ^e	3.50%	No	15%	No	18.00%
Alberta (post budget)	N/A	N/A	15%	No	15%
Nunavut	N/A	N/A	15%	No	15%
NWT	N/A	N/A	15%	No	15%
Prince Edward Island	N/A	N/A	15%	No	15%

Canadian-controlled private corporations (CCPCs)								
Provinces	Rank by BERD (\$)	Provincial credit rate	Provincial credit refund?	Federal credit rate	Federal credit refund?	Combined credit rate	Impact on first \$3M of Qualified RD& D Expenditures	
							Refundable Tax Credit (cash back)	Non-refundable tax credit (reduced taxes)
Quebec	2	30%	Yes	35%	Yes	54.50%	\$ 1,635,000	
Manitoba	6	15%	Yes	35%	Yes	44.75%	\$ 1,342,500	
New Brunswick	7	15%	Yes	35%	Yes	44.75%	\$ 1,342,500	
Newfoundland and Labrador	9	15%	Yes	35%	Yes	44.75%	\$ 1,342,500	
Nova Scotia	8	15%	Yes	35%	Yes	44.75%	\$ 1,342,500	
Yukon		15%	Yes	35%	Yes	44.75%	\$ 1,342,500	
Ontario	1	8.0% refund + 3.5% credit	Yes/No	35%	Yes	42.29%	\$ 1,268,700	
Alberta (pre-budget)	3	10%	Yes	35%	Yes	41.50%	\$ 1,245,000	
British Columbia	4	10%	Yes	35%	Yes	41.50%	\$ 1,245,000	
Saskatchewan	5	10%	No	35%	Yes	41.50%	\$ 1,245,000	
Ontario	1	3.50%	No	35%	Yes	37.30%	\$ 1,119,000	
Prince Edward Island	10	N/A	N/A	35%	Yes	35%	\$ 1,050,000	
Nunavut		N/A	N/A	35%	Yes	35%	\$ 1,050,000	
NWT		N/A	N/A	35%	Yes	35%	\$ 1,050,000	
Alberta (post-budget)		N/A	N/A	35%	Yes	35%	\$ 1,050,000	

Talent and investment started here is poised move to Saskatchewan and BC, or other countries. Future innovation and employment will follow to those locations and re-establishing it here will be challenging.

Recommendation: Reassess the withdrawal of SRED.