

ITAC – Alberta Position Paper



Toward a More Diverse Alberta Economy

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As Canada's national ICT business association, the Information Technology Association of Canada (ITAC) champions the development of a robust and sustainable digital economy in Canada. A vital connection between business and government, we provide our members with the advocacy, networking and professional development services that help them to thrive nationally and compete globally. A prominent advocate for the expansion of Canada's innovative capacity, ITAC encourages technology adoption to capitalize on productivity and performance opportunities across all sectors. A member-driven not-for-profit, ITAC has served as the authoritative national voice of the \$150 billion ICT industry for 60 years. More than 33,500 Canadian ICT firms create and supply goods and services that contribute to a more productive, competitive, and innovative society. The ICT sector generates one million jobs directly and indirectly and invests \$4.8 billion annually in R&D, more than any other private sector performer.

2015 marks an historic inflection point for Alberta. Recent setbacks in its economic mainstays – notably the energy and agricultural sectors – have underscored the need for greater diversification of the provincial economy. Combined with the resounding mandate presented to Premier Notley’s Government in May, this has created a new urgency for the development of strategies that promote more balanced economic growth and diversification, as outlined in the October 2015 Provincial Budget.

Alberta’s information and communications technology industry has long been both an advocate for and an exemplar of the benefits of economic diversity. On their behalf, ITAC Alberta, the Alberta arm of the Information Technology Association of Canada (ITAC), offers the following observations and suggestions regarding measures that may strengthen Alberta’s technology and other knowledge-based sectors. ITAC believes that expansion of these sectors offers Alberta the best possible insurance against downturns in the resources sectors. We also believe that Alberta has a strong foundation upon which to build a larger and more robust technology sector. It has invested wisely in institutions for advanced learning, world class public R&D facilities and an integrated suite of government services targeted at attracting and growing more innovation-intensive enterprises. All of this provides a running start. Combined with a strong statement of aspiration and some strategic reform and investment, a substantially stronger technology sector can emerge quickly in Alberta.

Alberta’s ICT Industry

ICT is the third largest industrial sector in the province, generating \$11B in annual revenues. In total, the sector employs about 54,500 Albertans and includes over four thousand Alberta companies, which range in size from firms as large as TELUS and as global as Smart Technologies to a diverse array of innovative start-ups developing solutions in all dimensions of ICT.

A cohort of large scale firms is important to a robust ICT industry. They anchor R&D investment, incubate a well-trained ICT workforce (including highly prized executive talent) and support emerging companies through supply chain and distribution networks. However, in spite of leadership from several large companies, and despite a vigorous innovation system underpinned by world class educational and research institutions, the industry is predominantly composed of SMEs. Like most other jurisdictions across Canada, one of the particular challenges Alberta faces is how to help innovative, smaller technology companies achieve the scale attained by Shaw, Smart Technologies and Pason Systems.

Alberta already has a robust community of innovative, ambitious start-ups and virtually all of them aspire to grow. While additional funding to the Alberta Enterprise Corporation, as announced in the October 2015 Budget, will help deepen the pool of technology start-ups within the province, these and other programs also need to support their continued growth as technologies are commercialized and brought to market.

In 2008, the Alberta Information and Communications Technology Institute updated Alberta's ICT strategy with a number of recommendations. Among its suggestions about how to grow Alberta's ICT industry was this: "Review successful technology commercialization initiatives and systems in other jurisdictions or industry sectors and address best-in-class elements to help ICT small to medium-sized enterprises in Alberta." Scanning the global ecosystem on a continuous basis will help to ensure that Alberta's innovation ecosystem is as robust as it can be. And it may also provide some reassurances that Alberta has a strong innovation foundation on which to build. ITAC can serve as a resource in this process with insights to share about effective policies in Alberta and other jurisdictions.

Alberta has made significant investments in the creation of its innovation ecosystem. This investment has delivered key innovation assets that hold tremendous promise to fuel growth and prosperity. Most importantly, it is one of the few jurisdictions in Canada to create a unified focal point for innovation policy and programs. Alberta Innovates, with a mandate to support and grow key knowledge-based sectors, expresses a strong commitment to diversification and a focal point for the innovation ecosystem. In addition, the Alberta Supernet demonstrates the province's understanding of the importance of broadband in the formation of a strong digital economy and the Banff New Media Institute serves as an inspiration and catalyst for Alberta's digital content professionals. These investments are starting to deliver results, but economic necessity now demands that we accelerate and demand a stronger, faster return. Investments in public research and development centres, such as the National Institute for Nanotechnology, help ensure that Alberta brainpower will make a significant contribution to future waves of technology. These and many, many other innovation assets ensure that Alberta has a rightful claim to reap the benefits of a strong digital economy. We believe that the time is right to take stock of these assets and, in a concerted, outcome-driven and measured fashion, build upon them to create a strong ICT sector in Alberta which can spur innovation and growth across the provincial economy. We recommend the following measures to do so.

- 1. Choose an aspirational target for diversification. Set a course to achieve it and measure progress consistently.**

Apart from setting policy and delivering programs, a key role of Government is to lead. If Alberta is truly committed to economic diversification, creating and communicating a unifying vision of what the desired transformation looks like is critical to success. In this regard, the October 2015 Budget is an invaluable first step, clearly establishing the broad goal of economic diversification, which can be further elaborated in an innovation strategy built around knowledge infrastructure and ICTs. We believe the next step is to set a target that is bold and measurable. For example, by 2020 the ICT industry in Alberta should grow to \$20 billion and employ 100,000 Albertans.

Once we have established what success looks like, measuring progress and celebrating the achievement of milestones moving toward that goal is the key to a positive result. Alongside the vision and the “metrics for success”, a high profile champion of diversification must emerge who is capable of explaining the need for diversification as well as equipped to cheerlead as we progress toward it.

2. Take stock of Alberta’s innovation assets and tune them up where necessary.

Facing considerable financial restraint, there will be limited scope for the creation of new institutions or programs so a prudent exercise would be to explore process improvements in existing ones. For example, our industry applauds the creation of Alberta Innovates and values its leadership and its programs to foster innovation-driven companies. At the same time, however, they have expressed frustration at the amount of time that is consumed waiting for decisions about program participation or other forms of support. Everyone recognizes that public entities are entrusted with public confidence and must honour appropriate due diligence requirements. However, unnecessarily long decision timelines can be death to companies seeking to capitalize on new innovations that typically have only a narrow go-to-market opportunity. Thus, efforts to better mesh the agility of Alberta Innovates with the agility required of the innovation driven companies it aims to foster can produce extraordinary benefits without incurring much additional investment.

3. Recognize the value of ICT enabling Technology as a Driver of Innovation across the Provincial Economy. Understand the contribution ICT makes in achieving environmental, health and other societal goals.

Alberta is a major global leader in key resources sectors like energy and agriculture, not merely because of the rich endowment of resources we have received from Nature. Achieving leadership in these sectors in the 21st century also requires the innovative edge and productivity improvements that come from effective use of technology. Throughout the province, innovation and communications technology is being deployed to accelerate oil, gas and mineral exploration, monitor animal health in agricultural herds, ensure the security of pipelines and improve the profitability and efficiency of forestry operations to name only a few applications. An impressive amount of this enabling technology is homegrown and exportable. ITAC Alberta believes that a strategy to foster the companies that provide the enabling technology used in the advancement of the various resource sectors would strengthen the Alberta technology sector as well as promote economic diversity.

In addition to its economic goals, the Government has clearly signaled that a change in environmental policy will come. ICT in a number of forms from teleconferencing to telematics, from phone apps to drones can be deployed to achieve environmental outcomes. By

encouraging the use of technology in this role, the Government can stimulate the growth of a stronger sustainable technology sector in Alberta.

In a similar fashion, Alberta has a superb healthcare system with metrics, outcomes and processes other jurisdictions envy. Technology offers tremendous opportunities to drive further efficiencies in healthcare, keeping the healthcare system affordable and excellent. Further investments in e-health will help to ensure the viability and growth of e-health technology companies.

4. Expand the Use and Availability of Broadband.

As mentioned above, the Alberta SuperNet, which the government began to roll out more than a decade ago*, remains a key asset around which to build a comprehensive ICT-based innovation strategy for the province. To fully exploit its potential, however, new measures are needed to renew the commitment to deploy SuperNet as an instrument for promoting business innovation and for providing improved world class services in education, health, e-government and electronic commerce. Areas where the provincial government could work with private sector partners to widen and strengthen SuperNet's contribution to economic growth include:

- a) Expanding the high-speed backbone network, and its links to national and international networks, in order to provide universities and technology centres in Alberta with world class research networking capabilities.
- b) Improving last-mile connectivity which will give businesses and public service centres in all communities across the province local access to high-speed broadband networks.
- c) Broadening access to advanced network applications for technology start-ups and incubators.

Using SuperNet to build an advanced, province-wide network infrastructure can provide the foundation for balanced long term economic growth across Alberta.

5. Understand the important role that innovation-intensive start-ups play in economic diversification.

The Government has already signaled that changes will be required in Alberta's corporate tax structure. We believe that any proposed changes should be flexible enough to continue to foster the growth of start-ups to attain sustainable scale. Tax reform always presents an opportunity to do more than simply increase revenue. It can serve as a powerful indication of the kinds of economic and enterprise outcomes (such as more R&D, more start-up growth, stronger linkages to higher education and skills development etc.) the Government favours. Our recommendation is to offset any broad brush changes with targeted direct or indirect measures to foster innovation-driven start-ups and R&D performing corporations.

6. Use the Government of Alberta purchasing power to foster innovation and grow the technology sector.

Government procurement can be a profoundly powerful instrument for public policy. Programs to focus on the potential contribution of innovative, emerging technology firms to the government services supply chain are an excellent way to identify high potential firms, help demonstrate their effectiveness and provide them with invaluable blue ribbon reference clients – all while driving toward better, more efficient service delivery.

7. Support international trade for technology companies.

No matter how excellent their products and services, no matter how well they do in the Alberta and Canadian markets, the domestic market is simply too small to allow home-grown firms to achieve scale. Their ability to export as early and successfully as possible is a key indicator for the growth of technology firms. To navigate complex global markets, they need all the help they can get, including appropriately funded provincial programs to support trade.

8. Support the closer consolidation and collaboration of agencies and organizations mandated to foster technology sector growth.

Technology ventures spring up everywhere throughout Alberta's vast geography. And a plethora of local support agencies have emerged to foster them. As a result, there is a need for greater provincial cohesion in the Alberta tech industry. This is one of the reasons we created ITAC Alberta. Government, particularly Alberta Innovates, can play a larger role in strengthening the sector by finding more opportunities to bring it together to network and find partnership opportunities. Alberta has already demonstrated the power of government-lead collaboration through the creation of entities such as the Alberta Innovation Council. We believe further government support in the form of ministerial leadership and coordination can greatly strengthen innovation-drive diversification across the provincial economy.

The above proposals and recommendations are offered in the spirit of building a stronger technology sector in Alberta. ITAC Alberta believes that a more robust technology sector will help our province adjust to inevitable downturns in the energy and other resource-based sectors more resiliently in the future. It will also help to build a stronger, more sustainable and inclusive society in Alberta.