CREATING THE CREATIVE ECONOMY

A better idea for BC’s economic future

November 2014

Since the 2013 election, the economic development of British Columbia has been tightly tethered to the fortunes of the LNG industry. And, for better or for worse, the province is committing much of its potential prosperity to the exploitation of a resource that will be driven by a range of not-made-in-BC factors, including global commodity price fluctuations, an uncertain investment climate and the very real possibility of the emergence of an Asian buyers’ union. And this says nothing of the ongoing and increasingly heated local protests against the environmental consequences of British Columbia’s quest to become an oil and gas based economy.

It is certainly a radical plan, but - as far as an industrial strategy goes - it leaves something to be desired. Many other potential engines of economic growth have been left by the wayside, including our burgeoning creative economy. This is surprising given its relative importance to the provincial economy - an estimated 80,000 jobs across the province (more than forestry, mining or oil & gas) that contribute more than $4 billion to the provincial GDP.[1] And these are good jobs: whether we measure in terms of labour intensity, “cleanness”, “greenness”, sustainability or the ability to attract financial, social or intellectual capital, an innovation-based economy would seem to be an economic pillar infinitely preferable to LNG. At the end of the day, these are exactly the sorts of jobs we want to create for our children and grandchildren.

Unfortunately, this is an industry that won’t create itself… at least not in a way that maximizes the benefits to the local economy. While British Columbia was originally able to rely on a concentration of relatively scarce talent and a low-valued dollar to build the cornerstones of our creative economy, those competitive advantages have eroded significantly over the years. We now rely on tax credits as bait for the film and television industry, while trying to leverage a relatively accommodating immigration policy to entice digital giants to set up shop in Vancouver.

As a result, we have inadvertently recreated the branch plant economy, albeit with a distinctly digital twist. While it is true that Vancouver is now a destination city for major US technology and media companies, this has profound implications for local entrepreneurs. It is much like any foreign species that invades an ecosystem and crowds out indigenous growth: local technology companies are finding it increasingly difficult to compete for talent with the deeper pockets and bigger brands of US giants like Facebook and Amazon.

[1] British Columbia Technology Report Card, 2012, KPMG, p. 3

To chart a better course, we must learn from the experience of other innovation-based tech centres, including the relatively small Finnish economy. There, the government has carved out a series of public-private mechanisms that have created a range of globally competitive technology companies to anchor their innovation industry and economy at large. It is time to re-examine the potential role Crown partners can play in creating a made-in-BC-for-BC industrial strategy, one that favours the development of local innovative companies.

Echoes from the 2013 Election

The BC election of 2013 was won (and arguably lost) around differing economic visions for the province. Before the writ was dropped, the governing Liberals were reeling from a series of body blows in the Legislature, with one pivotal MLA after another declining to stand for re-election. Their fortunes were to turn around quickly, as the BC Liberals mounted an historic come-from-behind victory.

Once could argue that Christy Clark's electoral success was due to her campaign's ability to distill the BC Liberal platform down to a single, easy to understand economic vision: prosperity through pipelines. The details may have been few, but this was a plan that would lead to a "debt free BC"… and who wouldn't want this?

Of course, it's somewhat more complicated than that, but there is little doubt that the provincial Liberals are now staking our future almost exclusively on our ability to export unrefined petrochemicals. The starkest example is their determination to attract sufficient foreign investment to endow five new LNG facilities in the province, with three operational by 2020.[2] This plan is purported to bring in billions of dollars of tax revenues, some of which would be redirected into a "prosperity fund" that would one day benefit the people of British Columbia. And, given the present differential between LNG prices in North America and Asia, there would seem to be riches enough for all.

But, of course, it's somewhat more complicated than that. The government of British Columbia is not the only jurisdiction to notice the potential for arbitrage in this market: other similar LNG projects are well underway in Australia, Russia and elsewhere. In tandem with this rising competition, there are ongoing discussions among Asian nations to reduce their import costs by

[2] Jonathan Fowlie "Christy Clark projects $100 billion LNG windfall for BC in throne speech", *The Vancouver Sun* (February 13, 2013)

creating a "buyers' union" of sorts, one that would put downward pressure on prices.[3] And, in recent weeks, a number of potential investors - Petronas among them - have publicly cooled to BC's plans, predictably citing the need to ease the planned tax regime before they will commit to an investment. Christy Clark's response has been to try to dismiss such developments as "negotiating tactics".

But, once again, it somewhat more complicated than that. What emerges from all the static is a clear picture of a government that went "all in" on LNG and is now looking at an ever-diminishing potential return. And it is that "all in" part that is going to be the most damning, especially as the Liberals intend to continue governing well past 2017. As we move deeper into their mandate, everything from educational policy to our stance on temporary foreign workers to investment in new technologies is being actively aligned to best serve the needs of the LNG industry. Suddenly, an awful lot rests on those lofty promises made during the course of a must-win election.

While our province's economic course may appear to be set for the foreseeable future, now is an excellent time to develop, well, *policy alternatives*. Because when the returns on LNG come up short, we will need to be able to swiftly pivot into a more promising direction, one that promises to deliver jobs that are cleaner, greener, better paid, more sustainable and more plentiful than those offered by our present industrial strategy.

Creating the Creative Economy

The "creative economy" is a term that has gained considerable currency over the past 15 years, thanks in part to John Wowkins's seminal work in 2001 (although David Hesmondhalgh and Richard Florida have taken this theory still further). In a nutshell, a creative economy refers to those industries that drive growth through the application of knowledge and creativity to produce innovative new products or services.[4] Although there are broader definitions in use, the core industries that would make up a creative economy are generally thought to be:

- advertising and marketing;
- broadcasting;
- film;
- internet;
- music;

[3] Nelson Bennett "Christy Clark off to Asia on LNG sales mission", *Business in Vancouver* (April 29, 2014)

[4] Creative Economy 2013 Special Report, United Nations Development Programme, (UNDP); United Nations Educational, Scientific, and Cultural Organization, (UNESCO) (2013), p. 19

- publishing; and
- computer games.

For many, these are recognized as the jobs of the future, especially as these relatively new industries are capable of generating a disproportionately large economic value. One readily thinks of the successes born out of Silicon Valley and, as policy makers often do, wonders how that economic engine can be re-created elsewhere.

It is hardly a surprise, therefore, to see other jurisdictions rushing to emulate the success of Silicon Valley, which some would see as the Mecca of the creative economy. London, New York, and Tel Aviv have all made considerable investments to develop their creative industries and are starting to show serious dividends, especially when measured in terms of increased domestic and foreign investment, steady growth in the number of directly and indirectly related jobs, an increase in the value of commercial real estate (often due to the recovery of run down industrial neighbourhoods), a higher intensity of research activity at post-secondary institutions and - most importantly - an influx of human capital.

Creating a cluster based on innovation and creativity is easier said than done, as the companies that come together in such centres generally require access to clients (preferably head or regional offices), abundant capital and a deep well of talent. In 2012, the Startup Genome project provided a deeper analysis of the required conditions, producing an index that ranked potential startup clusters by an array of factors: performance, mindset, trendsetting, access to capital and support networks. Their study ranked twenty cities in terms of their ability to produce the sorts of successful startups that help drive a creative economy, with Silicon Valley as the baseline and other cities (Tel Aviv, Seattle, Chicago, etc) ranked comparatively. Vancouver, incidentally, wound up some place in the mushy middle.[5]

It is no accident, incidentally, that we identify cities as the loci for creative economies. These tightly defined geographic regions are the natural place for well-defined creative clusters to take root because of an effect called “superlinear scaling”.[6] Put simply, this means that bigger, more densely populated cities generate new ideas at an exponentially faster rate than smaller, less densely populated areas. So we talk of San Jose instead of Podunk, New York City instead of New York State.

[5] Startup Ecosystem Report, Startup Genome / Telefonica Digital (2012), p. 57
[6] Steven Johnson, *Where Good Ideas Come From* (Riverhead Books, 2010), p. 10

This point is worth noting when we think about the situation here in British Columbia. While there are some noteworthy successes in Victoria and Kelowna, there is little doubt that our creative economy is Vancouver-centric. This poses a bit of a challenge when it comes to policy, as many of the necessary tools are held by the provincial government, one that can be disinclined to pursue aggressive policies that would appear to benefit only one municipality. But if we are to compete and succeed on what is very much a global stage, we need to find ways to move beyond this thinking, as other provinces have.

The Canadian Experience

When we look eastwards, we see two Canadian cities that have been particularly successful at cultivating a creative economic cluster: Toronto and Montreal. As Vancouver's star has dimmed somewhat in recent years, these two cities have seen a surge in jobs and investment to underpin their local innovative industries. Both are now recognized as world-class centres on par with Vancouver, which was the clear frontrunner not all that long ago.

Montreal has long been making investments in their creative economy, beginning with the surprising success of "Plan Mercure". This was the brainchild of Sylvain Vaugeois, who saw an opportunity to kickstart a creative cluster by attracting a greenfield investment from Ubisoft, the French entertainment software giant. Once Ubisoft established their Montreal production facility, they became a "tentpole" company of several hundred employees (now close to 3,000) that anchored the city's burgeoning creative economy.[7] Initially, Ubisoft were enticed by a "one-off" labour-tax credit that significantly reduced their salary costs. This led to a considerable outcry by Quebec-based studios, who demanded that the same treatment be extended to existing domestic producers. As a result, Quebec has a long-standing digital media tax credit value at 37.5% of labour costs… that's real money and has led to steady growth in the number of jobs in that sector across the province, but principally in Montreal.

Coming a little later to the game is Toronto, which followed a nearly identical tent-pole strategy based once again around Ubisoft. In addition to a labour-based tax credit of 40% the Ontario government gave Ubisoft an enormous grant in 2009 to set up a sizeable production studio in the city, hoping it would quickly foster a local computer game industry. Despite the considerable costs, this strategy seems to be working, as the provincial government continues to draw in other big name studios like Rockstart and Capcom.[8] In turn, this influx of talent is benefiting numerous smaller and scrappier startups that are now driving the growth of this sub-sector.

[7] Diane-Gabriele Tremblay and Serge Rousseau, "The Montreal Multimedia Sector: A Cluster,a New Mode of Governance or a Simple Co-location?" *Canadian Journal of Regional Science* (28-2), p. 309

[8] Raju Mudhar, "Rockstar Games Expands in Ontario", The Toronto Star (July 11, 2012)

In the case of Vancouver, we have suffered from a policy of benign neglect. While we have seen steady success in the field of enterprise software, there is considerable variability caused by the broader planks of our creative economy: film and television production which came on strong in the '80s, computer game development which bloomed in the '90s, and a new wave of pure-play internet startups that came about after the dot-crash of 2001.

As the trials and tribulations of the film and television production industry are well-documented elsewhere, this paper focuses on the particular challenges and opportunities of the digital media side of our creative economy. There are many similar factors that drive growth in these areas and many of those early advantages were not so much earned as inherited. These include:

- a relatively cheap dollar;
- labour policies that exempted digital media companies from paying overtime;
- a concentration of relatively scarce talent thanks to a prevalence of specialized schools;
- a strategy of attracting other talent through "lifestyle" marketing; and
- a "tentpole" company in EA that could spin off other new studios

This last point is perhaps one of the most significant: having a global industry leader like EA acted as a sort of bellows that fanned the flames of our burgeoning tech cluster by inhaling and exhaling talent. This talent was drawn to the city, trained up by working in EA's high stakes environment, with some of the best jumping ship to start up new companies of their own By 2003, Vancouver was recognized as a world leader in the skyrocketing computer game industry[9]: coupled with our existing film, television and music industries, this city was poised to become a recognized innovation cluster on par the top international centres.

What the heck happened?

We took our eyes off the ball.

Resource intensive sectors like the forestry or mining or the oil and gas industries, do not require as much care and feeding as those in the creative economy. By making ongoing investments to ensure that we extract these commodities as efficiently as possible and sell them globally at the best price, we realize a considerable return. Other than being cognizant of the business cycle, this is not an industry that lives or dies by making investments in the unknown.

[9] Leonard Paul, "Canadian Content in Video Games", Proceedings of DiGRA 2005 Conference: Changing Views - Worlds in Play, p. 2

By comparison, a creative economy is a much more fickle creature: it needs tending, fine-tuning and rapid footwork to keep pace with dynamic global forces. Not to diminish the very real accomplishments of the resource industries, but a barrel of oil from 1985 is still a barrel of oil today. On the other hand, no one in their right mind would consider starting a business tomorrow built around CDs, DVDs or flip-phones. When it comes to innovation in digital media, today's pace of change and adoption is moving fast, even by industry standards. Government policy needs to be active and engaged to support private sector actors engaged in this kind of innovation.

So the presumption, from policy makers, that our creative economy will continue generating wealth on its own is really quite striking. Whether it was hubris or simply inattention to the rise of new competitive market forces, we have seen our stature slide. Over the course of the last five years, a combination of global forces and industry specific trends have eroded Vancouver's position as a market leader. Specifically:

- the value of the dollar shot up, narrowing our cost advantage;
- the mushrooming of specialized schools made talent abundant in other centres;
- "lifestyle" marketing proved to be less attractive than higher wages; and
- EA downshifted its studio here, while other tentpoles shifted south.

These factors alone made British Columbia vulnerable, but changes in the makeup of the games industry itself hit Vancouver disproportionately hard. Globally, there was a move away from mid-tier console games that was the natural result of the industry doubling down on large budgeted blockbuster hits. while an entirely new market opened up for smaller, casual games. The Vancouver computer game industry was largely based on works-for-hire that served the market between those two poles: a relatively swift collapse took place in the summer of 2012 where a significant number of local studios shut down, relocated or downsized, throwing hundreds upon hundreds of talented developers out of work.[10]

So, when it comes to creating the creative economy in British Columbia, where does this leave us? To be honest, it is a bit of rebuild.

Taking the Pulse

[10] Gordon Katic "Indie studios thrive despite disquiet over health of games industry," *The Thunderbird*, (October 16, 2013)

If we are going to get it right this time, we need to develop a strategy that actively engages with and reinforces the creative cluster trying to take root in Vancouver. We need to enact policies that break a cycle of seemingly endless churn and set the underlying conditions necessary to produce consistent growth. Of course, no industry is recession proof but there are some obvious home-grown constraints that we can ameliorate or even possibly eliminate.

1. Where angel (investors) fear to tread

The term "angel investor" generally refers to a high net worth individual who is prepared to make an early equity investment in an innovative startup. Typically in the low six figures, these investments are essential part of the growth spectrum of a company, allowing them to move past bootstrapping or friends-and-family funds and move towards a revenue-generating product or venture-level investment. It is not uncommon for these individuals to have been successful entrepreneurs themselves, who have decided to "pay it forward" to the next generation.

While there are plenty of potential angel investors in Vancouver - many of whom made their wealth in the resource-based industries - it is a community that is uncatalyzed, especially when compared to the US centres with whom we must compete. As a result, this break in the typical funding cycle for innovation-based startups causes some very serious knock-on problems, which undermine the viability of the Vancouver creative economy.

2. Institutional money

It is true that there are some ways in which we can paper over these somewhat serious cracks. Nationally, the **Canada Media Fund** has picked up where Telefilm Canada has left off: their "experimental fund" of approximately $30 million per year is meant to encourage the growth of innovation-based entertainment startups. With no Canada Media Fund office in Vancouver, local companies have only been somewhat successful in accessing these funds: the lion's share usually goes to companies based in Toronto and Montreal.

We need to start punching our weight in pulling in these national funds. But even when successful, this money that doesn't come with the mentoring, access to influential contacts, product validation or other value-adds from a qualified angel investor. That limits the chances for success.

Another source of government support are the hotly-debated tax credits that have crossed over from film and television productions into digital media, as well as R&D tax credit programs. Both serve a purpose, but the biggest drawback is linked to timing: rather than an upfront investment that shares the risk with the management of the startup, these credits come only postfacto… often months after the expenses have been incurred. As a result, they are not always an effective tool to seed new companies with compelling innovations.

3. The flight of the startups

Due to this lack of local angel financing, many promising startups have no choice but to look south for financing. Seattle is a promising investment centre, with plenty of Microsoft millionaires ready to invest in the next big thing. A little further south is San Francisco, gateway to Silicon Valley and all of its very smart money and talent, including the notorious “PayPal Mafia”. Money knows no sovereign and many US investors are prepared to invest in Canadian startups… but their money is a little averse to travel. An old startup axiom is the “beemer rule”, which states that amount of investment is inversely proportional to the distance an investor needs to drive in his BMW to visit you.

As a result, when a Vancouver startup is successful in scoring financing from an American source, they almost inevitably need to follow the money. Companies like **Zite**, **Summify**, **Wantering**, and others have all gone this route, but the most notorious defection is **Flickr**. One of the companies that defined the emergence of the social web, Flickr was started in Gastown with an advance from Telefilm Canada. Once they showed signs of sudden success, Flickr was purchased by **Yahoo!** and, as part of the acquisition, required to move to San Francisco.[11] Which points to another problem…

4. No tent without a tentpole

“Tentpoles” are high growth, high employment companies that help prop up a creative cluster: they provide a necessary training environment that picks up where universities leave off, they draw top-tier international talent to a city that further strengthens the local workforce, and - in time - they will spin off new innovation-based companies made up of senior staff with a big new idea. In the past, **Electronic Arts** acted as a tentpole for the local game industry, turning Vancouver into a global centre of excellence and spinning off numerous companies like **Radical Entertainment**, **Blackbox Studios**, **Next Levels Games** and others.

Ten years ago, Flickr could have been a tentpole around which might have grown an impressive array of social media companies. It is something of an “Avro Arrow” for Vancouver’s tech sector, because of the enormous potential that was missed had it stayed in the city. Its founder, Stewart Butterfield, has recently launched a new and impressive startup called **Slack**, this time from Yaletown. But after scoring two rounds of investment (totally ~$180 million), there will be

[11] Tomio Geron, “A Look Back At Yahoo’s Flickr Acquisition For Lessons Today” TechCrunch.com (August 23, 2014)

considerable pressure on him to once again relocate to San Francisco. And with him will go those additional jobs and great new spinoff innovations.

5. Invasive species

Of late, much has been made of large new foreign entrants setting up shop in Vancouver, well known tech giants like **Facebook**, **Amazon**, **Sony** and **Microsoft**. Even the Chinese giant **Alibaba** is considering opening its first overseas operations here. The suggestion is - particularly from public officials - that these companies will be the source of hundreds of new jobs in the creative economy.

The reality is a little different. Yes, there will be many new and well-paying jobs created… but there is evidence that these companies may very well be nothing more than waiting stations for employees waiting to be cleared for US immigration. Our relatively open system in Canada stands in stark contrast to the always oversubscribed H1B program in the United States.

As a result, tech talent may cycle through Vancouver without creating the desired tentpole effect… in fact, it may turn out to be a net drain on our local talent.[12] And, as we saw with the unceremonious shutdown of **Pixar's** Vancouver studio, these digital branch plants can easily close with the click of a mouse.

All of which will play havoc with our local innovation ecosystem: indigenous producers will be crowded out by these invasive tech giants. There is considerable upward pressure on wages already, as local entrepreneurs are outbid by much ballyhooed brands. And even if the salaries were not an issue, the prospect of working on major initiatives for global players is surely more of a lure than working for a gutsy, quasi-funded startup in Gastown.

All of the above can be corrected through a concerted public policy effort… yet, so far, that leadership is absent. In fact, many of these ribbon-cutting celebrations may actually prove to be medium-term policy failures that gut our creative economy. We need a forward-looking strategy if we are to secure and extend our creative economy…. and, fortunately, there are successful models to which we can turn for guidance.

Ideas from Afield

[12] Jacob Parry, "Vancouver's (temporary) tech boom", *BC Business* (October 7, 2014)

For some reason in British Columbia, there seems to be an almost wilful ignorance when it comes to developing a robust policy around technology and innovation. This policy confusion is hard to understand: other jurisdictions with a variety of ideologically driven governments have figured out a workable formula and are beginning to reap the rewards. Certainly, with all of our endowments, such success is possible here.

One example worth highlighting is Finland and how they moved their creative economy away from a failing mobile phone giant into one that is home to a globally recognized computer game industry. Compared to Canada - or even British Columbia - Finland’s game industry is relatively small. But it certainly punches well above its weight, with its 2000 odd employees making a much larger contribution to GDP than the 16,500 people employed in Canada.[13] It is a staggering difference and one that did not come about by accident.

Rather than Canada’s reliance on tax credit incentives and foreign work-for-hire projects, Finland has opted for direct up-front investments on new intellectual properties wholly-owned by Finnish companies. This approach has been underpinned by a government controlled investment fund known as **Tekes**, the Finnish funding agency for investment. Of the 600 million euros invested annually, Tekes sets aside 70 million euros for the computer games industry: over the years, it has invested in more than 100 Finnish games companies through either loans or direct investments.

Tekes makes rather large investments in these new companies, which gives them the capital needed to succeed on the world stage. Up to 1 million euro are made available per project as either investments or loans; companies can apply for several projects to make up a slate that can amortize technology and talent in the most efficient ways. The model is dynamic and flexible, allowing companies to come forward with project proposals at any time.

There really is nothing of this scale in Canada and certainly nothing like this in British Columbia… which is surprising considering that the two economies are roughly similar in size. The funding made available for interactive projects by Creative BC, the provincial agency charged with making such investments, is a blip, with an operating budget of approximately ~$2.2 million. The closest comparable is the aforementioned Canada Media Fund, which sets aside roughly Cdn $30 million of its overall fund for what it deems “experimental projects”… which, somewhat perversely, include games. The administrative process is cumbersome by comparison, with applications only allowed twice a year at pre-determined windows. And the

[13] Tuomas Pirinen, “Videogame Industry in Canada and Finland”, Presentation to Minister Andrew Wilkinson, Minister of Technology, Innovation and Citizens' Services (April 2014)

amount available per project is allocated in stages, making it hard to develop momentum… which is deadly in what is a very fast-moving industry, where consumer tastes change on a dime.

What is telling about the Finnish financing model is that even though public investment is "first money in", Tekes has also proven to be quite successful in drawing in subsequent private sector investment to their most successful projects. Therefore, rather than an ongoing drain on the public coffers that one might expect to see from a labour-based tax credit system, Tekes can redeploy funds to the next generation of promising innovators.

In tandem with this, the Finnish government makes ongoing and focused investments in further developing an already deep pool of specialize talent. In part, this came from re-training established mobile developers to participate in the games industry, but it also stems from extra-curricular activities like **Demoscene**, **Assembly** and the **AI Coding World Championships**. And, while we are contemplating these kinds of investments in human capital, free university tuition doesn't hurt either.

This combination - plus a certain tolerance for failure - gives Finnish companies a real shot at global success with their properties, with those benefits redounding directly to the benefit of their domestic economy. It is a true public-private partnership that produces high-paying (and therefore taxable) jobs, corporate profits (also taxable), ongoing foreign investment that gently displaces the need for Tekes to step in, and cross-over benefits to other industries from the technical expertise developed to service fast-growing game companies.

A Made-in-BC Strategy

It is, of course, easy to make generalizations of how we can emulate and improve on the Finnish model. But it is even easier still to continue our heads-in-the-sand approach to policy around innovation and hope that the invisible hands of the market will somehow make something of our present mess.

If anything - and perhaps contradicting their essentially free market ideology - the provincial government has shown through their embrace of an LNG-fixated economic policy that the public sector can <u>absolutely</u> move the needle on industry. My assertion would be that we have been backing the wrong horse and that by applying this same energy elsewhere, we could make an impact that is more societally just and economically sound.

In doing so, it helps to have goals. If we decide that the goal is to create jobs that are cleaner, greener, more sustainable, better paid and with a higher social return than the LNG industry, then the creative economy would seem to represent one of the clearest paths to that goal. But we will need an active and imaginative strategy that addresses the all-too-clear shortfalls described above. Where to begin?

1. Holding the line on tax credits

Although these have become something of a political football - especially during the last provincial election - and are a sub-optimal way to spur investment in innovation, we need to keep this system in place to buy time us the time needed to transition to a better model. In fact, we may even need to extend the existing scheme to better compete with the programs offered in Montreal and Toronto.

For film and television, those cities' “all spend” model is marginally more attractive when it comes to attracting new production, while their digital media tax credits are a full twenty points higher than that offered in British Columbia. And even with the lower rate, our Interactive Digital Media Tax Credit program is up for renewal in 2015, with no clear indication from the provincial government that it will continue. This has cast a pall over the local game industry and will have a chilling effect on future productions.

2. Create a provincial version of Tekes

Like the labour tax credits mentioned above, the good work done by Creative BC is still only a half-measure: if we are to produce a globally competitive innovation cluster, we need to do much more and do it more intelligently. Even if we are unable or unwilling to create an institution of the same scale as Tekes, we should certainly be able to appropriate its best practices.

The most important role of this provincial Crown agency would be to correct the financing gap: this could be accomplished through direct investments structured to catalyze local angel investors. If done with a nimble enough methodology, even relatively small investments can effectively kickstart the next generation of innovative new ideas.

3. Better leverage the national system

In many ways, Canada has an excellent national system to support creativity, technology and innovation: these programs and funds have the potential to be a tremendous multiplier of early stage capital. It is, however, an immensely cumbersome system, one that is difficult to navigate even for a creative entrepreneur. It takes a tremendous amount of time and energy - and no little ingenuity - to piece together the various pieces of this system into a strategy that will work for a particular startup… and this is time taken away from actually working on the product or innovation. By comparison, the path to angel investment in southern jurisdictions is more straightforward and with a better potential return.

An empowered provincial Crown agency could cut through much of this red tape. By providing BC-based startups with a clear course through these various programs and using them to multiply the initial investment made by "Tekes BC", we could draw in significantly more funds to Vancouver, Victoria or Kelowna. And that directly translates into more jobs. This undertaking might be onerous, but it is an extremely small investment to make when one weighs up the potential return.

In tandem with such efforts, this provincial Crown agency would also give the BC government a platform from which to lobby for an improved national strategy. Besides encouraging the federal government to make more funds available for investment in innovation, this agency could also work with its counterparts in other provinces to reduce the risk of a "race to the bottom" when it comes to labour tax-credits. A tricky conversation, to be sure, but one well worth having.

4. Retain, retrain and repatriate talent

During the summer of 2012, the Vancouver game industry went through a profound contraction, shedding hundreds of jobs and several longstanding studios over the period of just a few weeks. These shutdowns were concentrated among the digital branch plants of foreign-owned companies; the net result of this was a sudden and irreversible brain drain as this homegrown talent scrambled to find jobs in Toronto, Montreal, Seattle and further afield.

By not taking an active interest in this sub-sector, policymakers had no forewarning that such a shakeup was in the works and, therefore, no plan in place to retrain or recycle this talent. As a result, we saw a longstanding competitive advantage severely diminished, almost overnight. We needed a well-publicized strategy in place to let us hold these people in Vancouver while they restart their careers. But now they're gone.

In like vein, such a program could be extended in attempt to convince some of the talent drawn to the immigration "wait stations" set up by Facebook, Amazon and others. If we are going to have top international talent cycling through our city, we might as well try to convince a few to stay. But we will need to improve on the present recruiting tactics, that tend to emphasize the Vancouver "lifestyle" as opposed to highlighting an environment where success is also possible.

This tactic could be emptied with even more success to the thousands upon thousands of Canadians living in Silicon Valley, Seattle, New York and other creative clusters: if we could demonstrate that we are investing in a thriving creative economy, we can repatriate some of this top talent to help accelerate its growth.

5. More Hootsuites, fewer Flickrs

Hootsuite is a world-class social media analytics company. Its founder, Ryan Holmes, has made a point of stating (and re-stating) his intention to keep his company in Vancouver, even as it raises the considerable capital needed to fund its rapid growth. If, through the sorts of policy improvements outlined above, we can create the kind of dynamic creative economy that is able to compete globally and generate local wealth and prosperity, we will ensure that more and more local entrepreneurs will be able to make similar decisions.

In Conclusion

Like many of the other papers presented during this conference, none of the policy suggestions made here are wild-eyed or implausible… rather, they build on best practices already at work in jurisdictions around the world. Moreover, they are based on an assessment of the situation in British Columbia - primarily Vancouver - and how we can adapt these practices to best suit our particular situation. More importantly, these measures are designed to enhance private sector processes while still providing a worthwhile social return. And, crucially, the amount of investment needed to develop this sort of diversified economy is considerably less than the numbers routinely discussed when it comes to building a economy that is driven by the oil and gas industry.

What is needed is the leadership to invest in this economy of the future, in the sorts of jobs that we want not just for ourselves, but for our children and grandchildren. That is a certainly a future worth pursuing. But, at the same time, we should remember that this future is not all that far away: if anything, an energetic program of even modest means would see direct returns well before any of the proposed LNG plants will materialize.