

Research Seminar 1:  
Intellectual Property Policy  
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Towards Increased Innovation:  
Exploring the Effectiveness of Sovereign Patent  
Funds in Canada

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# TABLE OF CONTENTS

<b>INTRODUCTION</b> .....	<b>1</b>
<b>BACKGROUND</b> .....	<b>3</b>
INNOVATION IN CANADA .....	3
SOVEREIGN PATENT FUNDS .....	5
SPF FUNCTIONS .....	6
(1) <i>Defensive SPFs</i> .....	6
(2) <i>Offensive SPFs</i> .....	6
(3) <i>Provision of professional services</i> .....	7
(4) <i>Preservation and retention of IP</i> .....	7
ESTABLISHED SPFs AROUND THE WORLD .....	8
LOOKING TO THE FUTURE .....	9
<b>CONSIDERATIONS</b> .....	<b>10</b>
OPERATIONALITY, SUCCESS AND UNCERTAINTY .....	10
OPPOSITIONS AND CRITICISMS .....	12
(a) <i>State-sponsored patent trolls?</i> .....	12
(b) <i>Governmental arms race?</i> .....	13
(c) <i>Anticompetitive vehicle?</i> .....	14
(d) <i>Violation of the Agreement on Subsidies and Countervailing Measures?</i> .....	15
COMPARABILITY TO SOVEREIGN WEALTH FUNDS .....	15
COST OF LITIGATION.....	17
<i>Third Party Funding</i> .....	18
<i>Before and after the event Insurance</i> .....	19
FISCAL POLICY AND LEGISLATION .....	19
Tax Resources .....	19
(a) Deductibility .....	19
(b) Depreciation.....	20
(c) Innovation tax credits .....	20
(d) Tax incentive policies.....	21
<i>Effectiveness of tax incentives vs. direct funding</i> .....	22
ECONOMIC POLICY.....	23
<i>Within Quebec: Quebec First Patent Program</i> .....	23
PATENT TROLL POLICY AND LEGISLATION .....	25
<i>National response</i> .....	25
<i>International response</i> .....	26
<b>OPTIONS</b> .....	<b>27</b>
OPTION 1: START A SPF .....	27
OPTION 2: RESEARCH FIRST, SPF LATER .....	29
OPTION 3: SET UP A COMMERCIAL INCUBATOR .....	30
<b>RECOMMENDATIONS</b> .....	<b>32</b>
FIRST RECOMMENDATION: OPTION 1 – START A SPF .....	33
<i>Patent retention</i> .....	33
<i>Fight patent trolls</i> .....	33
<i>Consistent with government goals and Canadian culture</i> .....	34
<i>Take advantage of an existing market</i> .....	35
<i>Evolve through practical application</i> .....	35
SECOND RECOMMENDATION: OPTION 3 – SET UP A COMMERCIAL INCUBATOR .....	36

<i>Consistent with Canada's goals and culture</i> .....	36
<i>Easily accessible expertise</i> .....	37
<i>Dissemination and long-term benefits</i> .....	38
<i>Measuring success</i> .....	38

## INTRODUCTION

Research shows that Canadian small and medium enterprises (SMEs) are strong in invention, but weak in commercialization, often failing to assert their IP stake through patent obtainment and enforcement.<sup>1</sup> According to a report by the European Centre for International Political Economy, “[IP] rights, and patents in particular, are increasingly one of the most commercially critical assets in global competition.”<sup>2</sup> Failure to monetize these rights represent million and even billion-dollar opportunity costs for Canada. For these reasons, the Canadian government requires a solution to protect and assert the IP rights of domestic firms and support their global economic growth.

Sovereign patent funds (SPFs), “state-governed entities that invest in the acquisition of titles to patents from third parties, with a view to achieve a return by monetizing those patents through sale, use of security interest, licensing or litigation,”<sup>3</sup> present an interesting opportunity for Canada to increase its global competitiveness through patent protection and enforcement.

SPFs, however, are a fairly new economic vehicle and so, their viability and sustainability are unknown. Recently, countries, such as France, South Korea, China and Taiwan, have established SPFs serving a variety of objectives and functions:

- **Defense:** Deterring patent litigation through the assembly of a national patent portfolio to be used as a threat of potential retaliatory action;
- **Offense:** Enforcing the patents in their national portfolio;
- **Service Provision:** Helping SMEs monetize their IP through licensing programs; and
- **Protection and Retention:** Strategically purchasing patents before foreign firms can acquire them or blocking entry of foreign competitors through patent enforcement.<sup>4</sup>

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<sup>1</sup> House of Commons, *Report of the Standing Committee on Industry, Science and Technology*, 41st Parl, 1st Sess (March 2013) at 21-22.

<sup>2</sup> Hosuk Lee-Makiyama & Patrick Messerlin, “Sovereign Patent Funds (SPFs): Next-generation trade defence?” (2014) European Centre for International Political Economy Policy Brief No 6/2014 at 1 [Makiyama & Messerlin].

<sup>3</sup> Warren Clarke, “The Rise of Sovereign Patent Funds: Insights and Implications” (2014) Centre for Digital Entrepreneurship and Economic Performance at 2 [Clarke].

<sup>4</sup> *Ibid* at 2-5.

While certain SPFs, such as France Brevets, have demonstrable evidence of success, the transferability of such a model within the Canadian context is uncertain and the progress and success of other SPFs is presently unknown or under-researched.<sup>5</sup> Given the recent emergence of these funds and the idiosyncrasies of each country's economic and political landscape, best practices are difficult to glean without in-depth analysis.

Critics of SPFs have argued that they: (a) operate like state-sponsored patent trolls;<sup>6</sup> (b) create a governmental arms race;<sup>7</sup> (c) are anticompetitive;<sup>8</sup> and (d) may violate international agreements. Still, reports considering their functionality have supported further investigation into their potential use within Canada.<sup>9</sup>

In October 2015, the Centre for Digital Entrepreneurship and Economic Performance (DEEP Centre) announced that it would be engaging in a research project to gain further insight into the functionality and application of SPFs within Canada. The DEEP Centre will obtain and analyze data from national and international patent offices to determine commonalities and differences between existing SPFs, identify best practices and inform public debates moving forward.<sup>10</sup> The cost and time length of this project has yet to be announced.

To that same effect, the purpose of the present analysis, as set forth in this paper, is to review the feasibility and effectiveness of a SPF within the Canadian context relative to other existing or proposed alternatives.

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<sup>5</sup> Jack Ellis, "France Brevets licence deal with LG Electronics a "milestone", says senior fund executive" (1 September 2014), *iam Magazine* (blog), online: <<http://www.iam-media.com/Blog/Detail.aspx?g=604614dc-555e-4322-b6cb-4e6452643733>> [Ellis].

<sup>6</sup> Makiyama & Messerlin, *supra* note 2 at 5.

<sup>7</sup> Clarke, *supra* note 3 at 6.

<sup>8</sup> *Ibid.*

<sup>9</sup> *Ibid.*

<sup>10</sup> "DEEP Centre Announces New Project on Sovereign Patent Funds" (9 October 2015) *Centre for Digital Entrepreneurship and Economic Performance* (website), online: <<http://deepcentre.com/news/deep-centre-announces-new-project-on-sovereign-patent-funds>> [DEEP Centre].

## BACKGROUND

### *Innovation in Canada*

According to a report by the European Centre for International Political Economy, “[IP] rights, and patents in particular, are increasingly one of the most commercially critical assets in global competition.”<sup>11</sup> Indeed, in the last 20 years, royalties and licensing fees obtained worldwide from IP have increased from \$30 billion U.S. to \$160 billion.<sup>12</sup> Many competitors, such as the United States, Japan and France, generate billions of dollars in profit by “selling or leasing their IP.”<sup>13</sup> Conversely, Canada is spending a large sum of money acquiring rights from others to use their technology; transactions that left the country with a deficit of \$4.5 billion U.S. in 2009.<sup>14</sup>

The problem is not that Canada lacks innovation capacity. In fact, a Conference Board of Canada 2012 Report demonstrates that Canada ranks 5<sup>th</sup> overall in scientific articles per million population.<sup>15</sup> Still, Canada has few patents to show for it.<sup>16</sup> While Canadian companies, including SMEs, are “IP-rich”, they fail to monetize and protect their IP.<sup>17</sup> Furthermore, Canada continues to fail to make IP retention a main cause for concern.

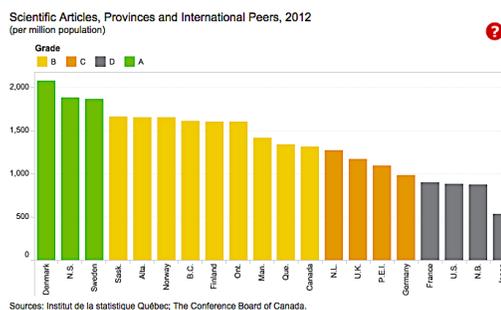


Figure 1. Canada ranks 5th in scientific articles per million population

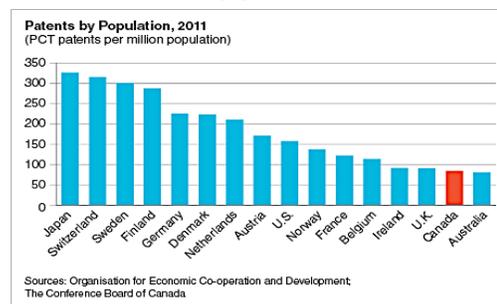


Figure 2. Canada ranks low on patents per million population

<sup>11</sup> Makiyama & Messerlin, *supra* note 2 at 1 [Makiyama & Messerlin].

<sup>12</sup> Karen Mazurkewich, “Rights and Rents: Why Canada Must Harness its Intellectual Property Resources” (2011) Canadian International Council at 8 [Mazurkewich].

<sup>13</sup> *Ibid.*

<sup>14</sup> *Ibid.*

<sup>15</sup> Daniel Munro, “Towards Better IP Knowledge, Strategy and Practice” (20 October 2015), *Conference Board of Canada* (website), online: <[http://www.conferenceboard.ca/commentaries/technologyinnovation/default/15-10-20/towards\\_better\\_ip\\_knowledge\\_strategy\\_and\\_practice.aspx](http://www.conferenceboard.ca/commentaries/technologyinnovation/default/15-10-20/towards_better_ip_knowledge_strategy_and_practice.aspx)> [Munro].

<sup>16</sup> *Ibid.*

Consequently, many enterprises that originate in Canada end up under foreign control with their innovations “generat[ing] profits for others.”<sup>18</sup>

What is hindering Canada from transforming research into profit? First, one must consider Canada’s risk averse culture. In the innovation market, risks are what “[propel] you forward.”<sup>19</sup> Indeed, “not taking a risk, is a risk.”<sup>20</sup> Entrepreneurs in Silicon Valley, a hub known for its innovation, take many risks and learn from their mistakes until they ultimately develop a successful idea.<sup>21</sup>

A second problem is the Canadian sentiment towards patents. According to a report by the Canadian International Council, “concern for IP has lost traction in Canada.”<sup>22</sup> In the pharmaceutical context, the debates surrounding patents have focused on the tension between businesses seeking drug patents to make profits and sustain further research versus access to affordable medicines. Viewing IP rights as a battle between businesses and users has “distorted the prism through which IP is viewed.”<sup>23</sup> This negative connotation likely affects the importance given to IP protection.<sup>24</sup>

A third important issue is the lack of infrastructure to support Canadian entrepreneurs on the global stage.<sup>25</sup> In Silicon Valley, “patent protection strategies are present at all phases of R&D.”<sup>26</sup> While Canada is one of the highest spenders on R&D globally, the country needs to put more effort and funding into the protection of innovation. As such, the infrastructure needs to be

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<sup>17</sup> Mazurkewich, *supra* note 12 at 6.

<sup>18</sup> *Ibid.*

<sup>19</sup> Knowlton Thomas, “Canada Has a Disease Called Risk-Aversion and It’s Going to Take a Cultural Shift to Propel Us Forward” (23 April 2015) *Tech Vibes* (blog), online: <<http://www.techvibes.com/blog/canada-risk-aversion-cultural-shift-propel-forward-2014-04-23>> [Thomas].

<sup>20</sup> *Ibid.*

<sup>21</sup> *Ibid.*

<sup>22</sup> Mazurkewich, *supra* note 12 at 11.

<sup>23</sup> *Ibid.* at 13.

<sup>24</sup> *Ibid.* at 11.

<sup>25</sup> Jim Balsillie, “Canadian can innovate, but we’re not equipped to win”, *The Globe and Mail* (8 May 2015), online: <<http://www.theglobeandmail.com/report-on-business/rob-commentary/balsillie-learns-canadian-innovators-not-equipped-for-global-competition/article24346408/>> [Balsillie].

<sup>26</sup> *Ibid.*

updated “to include forums where commercialization of Canadian ideas are given strategic and integrated policy focus.”<sup>27</sup> It is possible for Canadian enterprises to profit from their patents. In June 2015, BlackBerry Ltd. reported that it benefitted from “monetizing its intellectual property,” resulting in a revenue increase of more than 150 percent through its licensing agreements.<sup>28</sup> Unfortunately, launching a private fund to gather and manage patents is not a realistic goal for most enterprises and there are no easily accessible methods for enterprises to be helped with protection or receive the expertise needed to build such a portfolio. A change is needed to obtain different results. As Jim Balsillie, the co-founder of BlackBerry Ltd., notes, we cannot expect our current policies to “miraculously spur new companies and significant economic growth.”<sup>29</sup> One way to support innovation for future growth is by establishing a sovereign patent fund.

### ***Sovereign patent funds***

Sovereign patent funds (SPFs) present an opportunity for Canada to increase its global competitiveness through patent protection and enforcement. SPFs are state entities that “acquire patents from third parties to achieve a variety of national economic benefits, ranging from direct monetization through licensing or litigation to defensive strategies that protect vulnerable sectors.”<sup>30</sup> A Centre for Digital Entrepreneurship and Economic Performance (DEEP Centre) 2014 Report highlights 4 possible SPF functions: (1) defensive; (2) offensive; (3) provision of professional services; (4) preservation and retention of IP.

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<sup>27</sup> *Ibid.*

<sup>28</sup> Euan Rocha, “BlackBerry CEO sees company patents as key to turnaround strategy”, *Reuters* (17 September 2015), online: <<http://www.reuters.com/article/2015/09/17/us-blackberry-strategy-idUSKCN0RH2EP20150917#2zfuRFMdULGrMqwL.97>>.

<sup>29</sup> Balsillie, *supra* note 25.

<sup>30</sup> Clarke, *supra* note 3 at 2.

## SPF Functions

### **(1) Defensive SPFs**

The main objective of defensive SPFs is to deter patent litigation. Patent conflicts are expensive and the defensive function originates from the apparent “need to protect domestic firms” from “aggressive litigation on the part of foreign competitors”, mainly patent trolls.<sup>31</sup> According to a recent study, “67% of new patent infringement lawsuits in the U.S. were filed by [patent assertion entities or] PAEs.”<sup>32</sup> Indeed, the targeting of domestic firms by foreign competitors pushed countries such as Taiwan and South Korea to establish their own SPFs.<sup>33</sup> The defensive function may be achieved in several ways. One method is to assemble a national patent portfolio to be used as a threat of potential retaliatory action.<sup>34</sup> Another tactic is to “dry out” the market such that patents created in Canada cannot be used by foreign competitors thereby securing “freedom to operate in the absence of litigation” for domestic firms.<sup>35</sup>

### **(2) Offensive SPFs**

On the other hand, an offensive SPF asserts the patents in their portfolio. For example, the SPF in France, France Brevets, began litigation against LG Electronics and HTC for their “alleged infringement” of patents in the area of near-field communications.<sup>36</sup> In the end, France Brevets successfully monetized its patents through a licensing agreement with LG and an injunction against HTC granted in a German court.<sup>37</sup> Some critics argue that SPFs will increasingly turn to litigation as a means of monetizing their patents and thus, become state-

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<sup>31</sup> *Ibid.*

<sup>32</sup> Brian Fung, “Patent Trolls Now Account for 67 Percent of All New Patent Lawsuits” (15 July 2014) *Washington Post* (blog), online: <<https://www.washingtonpost.com/news/the-switch/wp/2014/07/15/patent-trolls-now-account-for-67-percent-of-all-new-patent-lawsuits/>>.

<sup>33</sup> Clarke, *supra* note 3 at 3.

<sup>34</sup> *Ibid.*

<sup>35</sup> *Ibid.*

<sup>36</sup> Jack Ellis, “It’s time to talk about patent funds”, *iam Magazine* 70 (March/April 2015), online: <<http://www.iam-media.com/Magazine/Issue/70/Cover-story/Its-time-to-talk-about-patent-funds>> [Talk about patent funds].

<sup>37</sup> Joff Wild, “France Brevets success in Germany shows just how wrong Bessen and Meurer are” (5 April 2015), *iam Magazine* (blog), online: <<http://www.iam-media.com/Blog/Detail.aspx?g=bcf19422-6ee9-45d4-965b-b2e3979bc4e6>> [Wild].

funded patent trolls.<sup>38</sup> Others suggest, however, that SPFs will opt for a more long-term approach to investment and will have “fewer incentives to quickly monetize patents.”<sup>39</sup>

### **(3) Provision of professional services**

SPFs may also help domestic firms by providing a wide range of professional services. Many small firms are unable to extract value from the patents that they own due to a “lack of knowledge and resources” and certain SPFs, such as France Brevets, seek to help these firms “generate value from their patents.”<sup>40</sup> This goal may be achieved through licensing programs or by purchasing dormant patents and clustering them together around particular markets to create a “one-stop shop,” thereby reducing transaction costs when a firm needs to licence a group of patents in a particular area. This is increasingly essential as research continues to become more complex and requires multiple licenses to advance. Importantly, SPFs may provide expert knowledge to domestic firms. For example, France Brevets provides “tailored IP advisory services to small firms” to impart them with monetization strategies.<sup>41</sup>

### **(4) Preservation and retention of IP**

Lastly, another possible objective of SPFs is the protection and retention of IP assets. The protection function blocks the entry of foreign competitors through patent enforcement to protect domestic firms from competition.<sup>42</sup> The retention function involves strategically purchasing patents before foreign firms can acquire them. For example, Japan’s SPF purchases dormant patents, consequently ensuring that foreign firms will not purchase them. A SPF could also purchase patents from a domestic firm that is going bankrupt. For example, Canada had the opportunity to acquire Nortel’s patents upon its bankruptcy; instead, foreign companies, such as

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<sup>38</sup> Makiyama & Messerlin, *supra* note 2 at 5.

<sup>39</sup> Clarke, *supra* note 3 at 3.

<sup>40</sup> *Ibid* at 4.

<sup>41</sup> *Ibid*.

<sup>42</sup> *Ibid* at 2-5.

Apple, purchased many of Nortel's patents for over \$4 billion U.S. dollars. Blackberry also purchased a portion of these patents and has already reported a 17% profit.<sup>43</sup>

### ***Established SPFs around the world***

Many developed countries have recognized that IP is fundamental to their prosperity.<sup>44</sup> Recently, countries, such as France, South Korea, Japan, China and Taiwan, have established SPFs. France Brevets and South Korea's Intellectual Discovery adopt a more holistic approach with goals of protecting domestic enterprises and generating revenue. France Brevets mostly focuses on licensing programs and as such, uses litigation mainly as a means to spur licensing negotiations. Most of the fund's patents are related to near-field communications and are jointly owned by France Brevets and enterprises "with the SPF holding exclusive licensor rights."<sup>45</sup> Under this model, the SPF shares revenues with the enterprises but "assumes all risks and costs relating to the licensing program"<sup>46</sup>. The firm is concerned with obtaining quality patents rather than simply accumulating high volume. Next, the fund may expand to the energy field.<sup>47</sup> South Korea's Intellectual Discovery has already acquired 3,800 patents.<sup>48</sup> Korean companies may invest in the fund and become shareholders thereby granting them a license to the fund's patents.<sup>49</sup> Japan launched the Innovation Corporation with the goal of purchasing "dormant Japanese patents and commercializing them."<sup>50</sup> Japan's SPF also appears to be utilizing a holistic

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<sup>43</sup> Neil Hughes, "Rockstar patent sale could net Apple \$392 million in March quarter" (31 March 2015) *Apple Insider* (blog), online: <<http://appleinsider.com/articles/15/03/31/rockstar-patent-sale-could-net-apple-392-million-in-march-quarter>>.

<sup>44</sup> Clarke, *supra* note 3 at 14.

<sup>45</sup> Ellis, *supra* note 5.

<sup>46</sup> Wild, *supra* note 37.

<sup>47</sup> *Ibid.*

<sup>48</sup> "Sovereign Patent Funds Change the Patent Assertion Scene" *IP Nav* (blog), online: <<http://www.ipnav.com/blog/sovereign-patent-funds-change-the-patent-assertion-scene/?printPDF>> [IP Nav].

<sup>49</sup> Dan Levine & Miyoung Kim, "Insight: Nation-states enter contentious patent-buying business" *Reuters* (20 March 2015), online: <<http://www.reuters.com/article/2013/03/20/us-patents-nations-insight-idUSBRE92J07B20130320#e5BXcY8pySmhYqGY.99>> [Levine & Kim].

<sup>50</sup> IP Nav, *supra* note 48.

approach, as it recently initiated its first patent infringement lawsuit.<sup>51</sup> Little is known about the SPFs in China and Taiwan, although Taiwan is said to be taking a defensive approach.<sup>52</sup> Overall, there are many different SPF structures and countries must determine which goals are best suited to their individual needs and objectives.

### ***Looking to the future***

The newly appointed Prime Minister Justin Trudeau is committed to investing in research and innovation. For example, the Federal government plans to invest \$200 million each year to support incubators and accelerators.<sup>53</sup> Many attempts have been made to spur innovation in the past. Canada has publicly and privately funded incubators “where entrepreneurs can learn to start and grow a business.”<sup>54</sup> Their success at generating revenue, however, remains controversial.<sup>55</sup> Nevertheless, approaches such as the Alberta Oil Sands Technology and Research Authority (AOSTRA) have demonstrated Canada’s ability to set a plan into action and yield returns. In AOSTRA, the government funded the development of technologies to collect oil and the patents that were derived were owned by the state. The state would then license the patents to commercial operators, providing them with “the critically needed freedom to operate.”<sup>56</sup> According to Jim Balsillie, “we can make commercialization of ideas a source of our prosperity if we apply strategic approaches.”<sup>57</sup> Therefore, the government should properly consider the potential for SPFs to foster innovation and economic development and growth in Canada.

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<sup>51</sup> Jacob Schindler, “Japan’s sovereign patent fund initiates first legal action in the US, accusing TCL of infringing three SEPs” (3 September 2015), *iam Magazine* (blog), online: <<http://www.iam-media.com/Blog/Detail.aspx?g=c67fb03e-c954-4e9e-8a31-dd0f6c32834e>> [Schindler].

<sup>52</sup> Clarke, *supra* note 3 at 5.

<sup>53</sup> “Jobs and Innovation” *Liberal* (website), online: <<https://www.liberal.ca/realchange/jobs-and-innovation/>> [Jobs and Innovation].

<sup>54</sup> Balsillie, *supra* note 25.

<sup>55</sup> *Ibid.*

<sup>56</sup> *Ibid.*

<sup>57</sup> *Ibid.*

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## CONSIDERATIONS

### *Operationality, success and uncertainty*

Importantly, SPFs are a fairly new economic vehicle and so, at present, their viability and sustainability are unknown. Recently, countries such as France, South Korea, Japan, Taiwan and China have set up differently structured SPFs to carry out varied objectives.<sup>58</sup> While the recency of their establishment does not likely offer a representative sample of their effectiveness, thus far, it appears that some have been more successful than others. For example, France Brevets, which, while generally holistic in nature,<sup>59</sup> represents a more offensive model for SPFs, was successful in its litigation and ultimate license settlement with LG Electronics in 2013 undertaken through its SPF.<sup>60</sup> It was similarly successful in its litigation against HTC Corporation that same year.<sup>61</sup> As recently as July 2015, Japan's IP Bridge initiated its first legal action in the United States over 3 U.S. patents that have been declared essential to the W-CDMA and LTE telecommunication standards.<sup>62</sup> Currently, the outcome of this legal action is unknown but nevertheless, the operationality and activity of these funds is noteworthy. Otherwise, the progress and success of established SPFs must continue to be monitored.

Further uncertainty exists as to the advantages of SPFs relative to private firms offering similar services. For example, already existing private firms, such as Allied Security Trust, currently provide defensive services to deter against litigation from PAEs or patent trolls.<sup>63</sup> These same private firms have in fact questioned the ability of SPFs to adequately evaluate the

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<sup>58</sup> Clarke, *supra* note 3 at 4.

<sup>59</sup> *Ibid* at 4.

<sup>60</sup> *Ibid* at 3.

<sup>61</sup> Schindler, *supra* note 51.

<sup>62</sup> *Ibid*.

<sup>63</sup> Warren Clarke, "The emergence of sovereign patent funds" (30 October 2013), *Centre for Digital Entrepreneurship and Economic Performance* (blog), online: <<http://deepcentre.com/blog/the-emergence-of-sovereign-patents-funds>> [Emergence of SPFs].

value or worth of those patents they acquire—an inability to do so accordingly may lead to “a large number of valueless patents aggregated at high cost.”<sup>64</sup> Recently, however, Pascal Asselot, Director, Licensing and Development of France Brevets, suggested that SPFs are better placed to serve long-term industry interests, as private firms are controlled by the short-termism of the market.<sup>65</sup>

Moreover, it is uncertain how Canada’s international allies would view and respond to its adoption and implementation of the SPF model. International agreements aside, which will be discussed below in greater detail, it is important to note that the United States government has not, as of yet, taken a stance for or against SPFs.<sup>66</sup> Given the litigious and economically taxing environment created by patent trolls or PAEs in the United States, it is not unforeseeable that the U.S. government would view such funds unfavourably, especially so if the SPF’s objectives and operations are not communicated clearly, resulting in a perceived lack in transparency.<sup>67</sup> Therefore, in considering the development of a SPF, it is of the utmost importance that the Canadian government keep its ear to the ground with respect to the United States’ political and economic environment and their resulting laws and public policies. To that effect, the implementation of any SPF would benefit from clarity, transparency and accountability.

Additionally, it is unknown which SPF model would be most effective within the Canadian economic and IP context. As previously mentioned, Canada represents a risk averse culture.<sup>68</sup> While this may speak more readily to a defensive SPF strategy, it is unclear whether this would be the ideal model as other SPF objectives similarly address to the issue of risk aversion.

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<sup>64</sup> *Ibid.*

<sup>65</sup> Talk about patent funds, *supra* note 36.

<sup>66</sup> Emergence of SPFs, *supra* note 63.

<sup>67</sup> *Ibid.*

<sup>68</sup> Thomas, *supra* note 19.

Importantly, Canada might only develop the appropriate strategy and objectives through the adoption of a SPF and its maintenance over time.

### ***Oppositions and criticisms***

Critics of SPFs have argued that: (a) they are state sponsored patent trolls;<sup>69</sup> (b) they would create a governmental arms race to avoid litigation;<sup>70</sup> (c) they are anticompetitive;<sup>71</sup> and (d) they may violate the *Agreement on Subsidies and Countervailing Measures*, “which prevents WTO members from using government power to secure advantages over foreign competitors.”<sup>72</sup>

#### **(a) State-sponsored patent trolls?**

Patent trolls or PAEs do not themselves produce any products;<sup>73</sup> rather, they wait for other individuals or companies to develop products that may or do infringe upon one or many of their held patents and ultimately, yield income through litigation and settlement payments. While the issue of bad faith dealings and poor business ethics are more readily apparent in these instances, what is lesser understood is the unequal litigation costs borne by each party. Most IP litigation costs are incurred during the discovery stage hence the inequality—PAEs have little in the way of evidence to disclose rendering their costs minimal whereas producing litigants’ costs may be excessive in nature.<sup>74</sup> Meanwhile, these costs form only a portion of the total costs suffered by victimized individuals or companies. In the United States, for example, it is estimated that producer litigants “incur preparation and court costs of about \$650,000 for each of these patent

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<sup>69</sup> Makiyama & Messerlin, *supra* note 2 at 5.

<sup>70</sup> Clarke, *supra* note 3 at 6.

<sup>71</sup> *Ibid.*

<sup>72</sup> *Ibid.*

<sup>73</sup> Alan Daley, “The Rise of State-Sponsored Patent Trolls” (5 October 2013), *Real Clear Policy* (blog), online: <[http://www.realclearpolicy.com/articles/2013/10/05/the\\_rise\\_of\\_state-sponsored\\_patent\\_trolls\\_675.html](http://www.realclearpolicy.com/articles/2013/10/05/the_rise_of_state-sponsored_patent_trolls_675.html)> [Daley].

<sup>74</sup> *Ibid.*

lawsuits when less than \$1 million is at risk, and about \$5 million for suits where \$25 million or more is at risk.”<sup>75</sup> These estimates are aside from the settlement costs themselves.

Some commentators, especially within the United States, have already labelled SPFs as “state-sponsored patent trolls.”<sup>76</sup> Some have further argued that SPFs are even more problematic than individual or corporate patent trolls yielding from the private sector:

Organized around nationalism and profit instead of merely profit, public trolls could be even worse than private trolls. We’ve seen national and continental governments use novel (read, bogus) theories of antitrust to unfairly target foreign technology firms. It’s not a leap to see how sovereign patent funds could be used in similar fashion.<sup>77</sup>

It is of particular relevance, however, that this argument only applies to SPFs of a more offensive nature. Furthermore, Asselot of France Brevets has rejected this claim, distinguishing SPFs as industry-focused entities with long-term vision unlike “trolls” that are only interested in short-term gains:

Being able to demonstrate a track record in making revenues is critical to attract new funding...But another key aspect is the positioning of France Brevets. We strive to be fair, determined and industry focused, and to have a long-term view, as opposed to patent trolls that jump into litigation to make a quick financial return. Maintaining this positioning is high on our agenda and initial talks with investors and partners show that it gets traction.<sup>78</sup>

To that effect, SPFs establish themselves as a more sustainable entity—one that is disinterested by frivolous litigation and small settlement claims.

## **(b) Governmental arms race?**

Dating back to the turn of the 20<sup>th</sup> century, patents have been used defensively. In fact, it has been said that Henry Ford accrued a multitude of automobile patents to reduce the risk of

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<sup>75</sup> *Ibid.*

<sup>76</sup> Emergence of SPFs, *supra* note 63.

<sup>77</sup> Bret Swanson, “The patent wars go global” (5 November 2013), *TechPolicyDaily* (blog), online: <<http://www.techpolicydaily.com/technology/patent-wars-go-global/>>.

<sup>78</sup> Talk about patent funds, *supra* note 36.

litigation and operate more freely within the market.<sup>79</sup> More recently, this type of protectionist behaviour, as exhibited by SPFs of a defensive nature, has been widely criticized. Of particular concern is the potential for a governmental arms race in an effort to shield domestic companies from foreign patent assertions. In other words, the creation of some SPFs will necessitate the creation of more SPFs due to the sheer pressure of having to defend oneself.<sup>80</sup>

This fear, however, has no basis in evidence-based research and as for examples of protectionist reactions or backlash in response to the implementation of SPFs, none can be gleaned at this time.<sup>81</sup>

### **(c) Anticompetitive vehicle?**

Research from the Organisation for Economic Co-Operation and Development (OECD) evidences that anticompetitive policies or market regulation hinders innovation. For example, one study found that there is a negative correlation between anticompetitive market regulation and innovation.<sup>82</sup> Another study found that a reduction in anticompetitive regulation is the second most powerful driver in increasing the level of business R&D spending.<sup>83</sup>

In this regard, critics of SPFs have suggested that the funds are overly protectionist and explicitly intended to serve the needs of domestic companies to the detriment of foreign investment or participation in the market.<sup>84</sup> Commentators rushing to the defence of SPFs, however, argue that SPFs are not anymore anticompetitive than the patent system itself,

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<sup>79</sup> Colleen V. Chien, “From Arms to Marketplace: The Complex Patent Ecosystem and Its Implications for the Patent System” (2010) 62 Santa Clara Law Digital Commons 297 at 303-304.

<sup>80</sup> Warren Clarke, “Sovereign Wealth Funds and Sovereign Patent Funds: What Can We Learn from the Comparison?” (16 December 2013), *Centre for Digital Entrepreneurship and Economic Performance* (blog), online: <<http://deepcentre.com/blog/sovereign-wealth-funds-and-sovereign-patent-funds-what-can-we-learn-from-the-comparison>> [SWFs and SPFs].

<sup>81</sup> *Ibid.*

<sup>82</sup> OECD, *Supporting Investment in Knowledge Capital, Growth and Innovation* (Paris: OECD Publishing, 2013) at 159 [OECD].

<sup>83</sup> *Ibid.*

<sup>84</sup> SWFs and SPFs, *supra* note 80.

especially since many private firms already offer similar services to those offered by SPFs.<sup>85</sup> In fact, commentators in favour of SPFs argue that the services offered by SPFs are actually likely to enhance competitiveness by providing funding and services to small and medium companies that would not normally have had the ability to protect themselves or thrive in the market.<sup>86</sup>

#### **(d) Violation of the *Agreement on Subsidies and Countervailing Measures*?**

Other critics have questioned whether SPFs violate both the spirit and letter of the *Agreement on Subsidies and Countervailing Measures* (the “*Agreement*”), which effectively prevents WTO members from using government power to help domestic entities secure advantages over foreign competitors. According to critics, the use of SPFs thus not only contravenes the *Agreement* but also, in so doing, hinders competition.<sup>87</sup>

Importantly, however, despite critics’ urges to take up the matter of SPFs with the WTO, the validity of this argument has not yet been verified by the WTO’s dispute settlement system nor has it been considered by another judicial entity.<sup>88</sup>

In sum, despite these various concerns, reports have supported further investigation into the potential use of SPFs within Canada.<sup>89</sup>

#### ***Comparability to sovereign wealth funds***

Acknowledging that the two are not completely analogous, Warren Clarke, a Senior Research Associate at the DEEP Centre, suggests that in considering those criticisms against the SPFs, one cannot help but recall the same concerns surrounding the emergence of the then-

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<sup>85</sup> *Ibid.*

<sup>86</sup> *Ibid.*

<sup>87</sup> James K. Glassman, “Will patent reform tackle government trolls?” (1 December 2014), *American Enterprise Institute* (blog), online: <<https://www.aei.org/publication/will-patent-reform-tackle-government-trolls/print/>>.

<sup>88</sup> Clarke, *supra* note 3 at 6.

<sup>89</sup> *Ibid.*

unknown sovereign wealth funds (SWFs) in the late 1990s and early 2000s. Now, we understand that these criticisms were generally unfounded and/or exaggerated.<sup>90</sup>

SWFs are “state-owned investment fund[s] or entit[ies] that [are] commonly established from balance of payment surpluses, official foreign currency operations, the proceeds of privatizations, governmental transfer payments, fiscal surpluses, and/or receipts resulting from resource exports.”<sup>91</sup> Much like SPFs, different SWFs have varied objectives such as (1) protection and stabilization of the budget and economy from excess volatility in revenues/exports; (2) diversification from non-renewable commodity exports; (3) yielding greater returns than on foreign exchange reserves; (4) increasing savings for future generations; (5) funding social and economic development; and finally, (6) political strategy.<sup>92</sup>

In their earlier days, critics believed SWFs were anticompetitive. Specifically, critics argued that they “undermine[d] competition by “propping up” firms which would otherwise fail, often for political motives.”<sup>93</sup> Interestingly, as previously mentioned, similar concerns are arising regarding SPF objectives and operations.

Despite the apparent differences between SWFs and SPFs, including their respective passive versus active management styles and operations,<sup>94</sup> a deeper understanding of the roots of public perception in the face of uncertainty and the credence that ought to be afforded to these claims can be gleaned through their comparison. Moreover, their public backing and similar objectives,

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<sup>90</sup> Warren Clarke, “Sovereign Patent Funds—A New Issue at the Nexus of International Trade and Intellectual Property” (Presentation delivered at the Cato Institute, 9 July 2015), online: <<http://www.cato.org/events/sovereign-patent-funds-new-issue-nexus-international-trade-intellectual-property>>.

<sup>91</sup> “What is a SWF?” *Sovereign Wealth Fund Institute*, online: <<http://www.swfinstitute.org/sovereign-wealth-fund/>> [Sovereign Wealth Fund Institute].

<sup>92</sup> *Ibid.*

<sup>93</sup> SWFs and SPFs, *supra* note 80.

<sup>94</sup> Intellectual Property Watch, “Inside Views: Patently Geopolitical: The New Frontier of Government and Market Interaction” (26 August 2013), *Intellectual Property Watch* (blog), online: <<http://www.ip-watch.org/2013/08/26/patently-geopolitical-the-new-frontier-of-government-and-market-interaction-2/>>.

despite their different mechanisms, help shine light on the uncertain area of SPFs where few well-established examples exist.

Importantly, over the years, despite initial harsh criticisms, SWFs have become well institutionalized and more commonplace. Between 2005-2012, for example, more than 32 SWFs were created.<sup>95</sup> Meanwhile, between 2008-2012, SWF assets grew by 59.1%.<sup>96</sup> These numbers demarcate the success of the strategy in accomplishing its goals.

As for the existence of said vehicles within Canada, SWFs presently operate at the provincial level—effectively but yielding low returns. While a national SWF does not exist as of yet, the success of these economic and political vehicles within the Canadian context and with similar tendencies to the SPFs presently under examination sparks hope and possibility for the utility of SPFs in Canada.

### ***Cost of litigation***

Defensive SPFs concern themselves with avoidance of litigation from foreign PAEs. As such, they serve to fend off excessive litigation costs and free up capital to be better spent on R&D and innovation.

In 2009, the Right Honourable Lord Justice Jackson prepared a report containing a review of civil litigation costs in the United Kingdom (the “Jackson Report”).<sup>97</sup> The results of his review are informative in considering the magnitude of litigation fees and the significance in creating economic vehicles, such as SPFs, in combatting their impacts.

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<sup>95</sup> Sovereign Wealth Fund Institute, *supra* note 91.

<sup>96</sup> *Ibid.*

<sup>97</sup> Right Honourable Lord Justice Jackson, “Review of Civil Litigation Costs: Final Report” (December 2009), online: <<https://www.judiciary.gov.uk/wp-content/uploads/JCO/Documents/Reports/jackson-final-report-140110.pdf>> [Jackson Report].

The Jackson Report notes that, for SMEs and even larger companies, the cost of resolving and settling IP disputes can be overwhelming.<sup>98</sup> The Jackson Report reviewed a sample of 15 large IP cases settled or taken to court between 1999 and 2007. These cases covered a wide range of IP-related issues, including trademark and patent infringement. Of these 15 cases, 12 were settled and 3 were taken to trial.<sup>99</sup> Of particular interest is that the adjusted litigation costs incurred on these cases ranged from £196,957 to £1,540,933, with an average cost of £696,742.<sup>100</sup> It was further found that nearly 20% of costs incurred stemmed from actual trial or settlement costs alone—the large portion of trial costs was attributed to the cost of the cross-examination of expert witnesses.<sup>101</sup>

Importantly, not only did the Jackson Report find that litigation fees can be quite excessive, but also that the process of being involved in a litigation dispute can be quite burdensome on company time. Cases reviewed ranged between 36 weeks and 111 weeks from start to first instance judgement or settlement, with an average length of 66 weeks.<sup>102</sup>

To reduce the costs of IP litigation, the Jackson Report suggested reforms (1) allowing costs to be recovered by opponents according to cost scales; (2) capping the total recoverable costs for patent infringement disputes at £50,000; and (3) the implementation of litigation fast tracks.<sup>103</sup>

### Third party funding

The Jackson Report recognizes third party funding as a viable option in high value cases with good prospects of success.<sup>104</sup> In this sense, it is a workable alternative to SPFs in reducing litigation costs. That said, it does not consider those opportunity costs spent while litigating away

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<sup>98</sup> *Ibid* at xx.

<sup>99</sup> *Ibid* at 24.

<sup>100</sup> *Ibid*.

<sup>101</sup> *Ibid*.

<sup>102</sup> *Ibid*.

<sup>103</sup> *Ibid* at xx.

<sup>104</sup> *Ibid* at 118.

from regular business operations. Furthermore, the prospects of success in these cases are generally unknown. In asserting a defensive stance pre-emptively, SPFs approach the reduction of litigation costs from a preventative position rather than a reactionary one.

#### Before and after the event insurance

While the Jackson Report recommends that SMEs buy insurance to cover business disputes,<sup>105</sup> it is important to note that not all costs may be covered under this scheme, leaving innovators footing much of the bill. Furthermore, insurance does not cover opportunity costs in time spent litigating rather than engaging in business operations. Finally, it is an adequate substitute insofar as the SPFs strategy is defensive—otherwise, the two cannot be compared.

#### ***Fiscal policy and legislation***

While certain provisions and fiscal policies within the *Income Tax Act (ITA)* serve to provide relief to companies developing and/or defending IP, these measures are not a perfect substitute to the proactive measures implemented by SPFs.

#### Tax resources

##### **(a) Deductibility**

Under s. 18 (1) *ITA*, when computing the income of a taxpayer from business or property, the taxpayer may deduct any outlay or expense that was made for the purpose of gaining or producing income from said business or property. Litigation costs in the normal course of business have been deemed deductible in most cases, including IP litigation.<sup>106</sup> Through this deduction, taxpayers may lower their taxable income and consequently, incur fewer taxes payable.

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<sup>105</sup> *Ibid* at 79.

<sup>106</sup> See *MNR v Kellogg Co. of Canada Ltd.*, 2 DTC 601, [1943] CTC 1, [1943] SCR 58; *Hudson's Bay Co. v MNR* [1947] CTC 86, 3 DTC 968.

While this represents a reprieve to the ultimate tax burden incurred by the taxpayer, as previously mentioned, the costs of litigation are unsubsidized and thus, fully borne by the company. For many, these costs are so excessive so as to stifle innovation and continued operations.

### **(b) Depreciation**

To a similar effect, under s. 20(1) *ITA*, the Federal government offers a deduction from income for the capital cost allowance of certain properties, including patents. Schedule II and Regulation 1100 specify the various classes and corresponding depreciation rates. Notably, patents can be deemed to be a tangible asset falling under Class 14 or 44 or an intangible asset. In either case, a deduction is granted over the useful life of the patent to benefit the taxpayer through a reduction to taxable income and consequently, taxes payable.

Importantly, deductions do not serve to incentivize specific transactions unless the capital expenditures involved are subject to an accelerated depreciation rate. As patents are not subject to an accelerated rate, depreciation does not incentivize innovation nor does it provide any form of relief to patent holders.

### **(c) Innovation tax credits**

Section 127.3 (1) *ITA* offers a scientific research and experimental development (SR&ED) tax credit to taxpayers in order to incentivize innovation through a direct reduction of taxes payable. According to the Canada Revenue Agency, the SR&ED Program offers more than \$3 billion in tax incentives to over 20,000 claimants every year.<sup>107</sup> Notably, 75% of claimants are

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<sup>107</sup> “Evolution of the SR&ED Program—a historical perspective” *Canada Revenue Agency* (website), online: <<http://www.cra-arc.gc.ca/txcrdt/sred-rsde/vltnsrdprgrm-eng.html>>.

small businesses.<sup>108</sup> As the maximum SR&ED tax credit is fixed, it represents a lesser incentive to larger firms.

While the SR&ED tax credit incentivizes innovation, its purpose, unlike SPFs, is inflexible. SPFs' potential multi-nature use renders them adaptive and responsive to the realities of the IP landscape and market. In this way, the two are non-substitutable. Still, the positive implications of the SR&ED tax credit should not be overlooked.

#### **(d) Tax incentive policies**

Fiscal policies are introduced intermittently in different provinces to stimulate growth in specific sectors. For example and to this effect, the Ontario government created the Ontario Tax Exemption for Commercialization, which provided a tax refund to eligible start-up commercializing IP developed by eligible Canadian universities. Specifically, eligible corporations might be eligible for a refund of the corporate income tax and corporate minimum tax the business paid in its first 10 taxation year, amounting to an exemption.<sup>109</sup> The exemption, however, is only made available to corporations incorporated between March 25, 2008 and March 24, 2012 operating in (a) advanced health; (b) bioeconomy; and (c) telecommunications, computer and digital technologies production.<sup>110</sup> Furthermore, the refund is only made available to corporations commercializing IP developed at Canadian universities and colleges.<sup>111</sup> As previously stated, while such fiscal policies and mechanisms are clearly beneficial to those businesses that may access them, their inaccessibility to a wider array of corporations renders them non-substitutable to a SPF. Furthermore, these incentives serve to reduce tax after-the-fact

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<sup>108</sup> Ontario, House of Commons, Standing Committee on Finance, "The Future We Want: Recommendations for the 2014 Budget", 41<sup>st</sup> Parl, 2<sup>nd</sup> Sess (7 June 2013), online: <<http://www.parl.gc.ca/HousePublications/Publication.aspx?DocId=6380037&Language=E&Mode=1&Parl=41&Ses=2&File=153>>.

<sup>109</sup> "Ontario Tax Exemption for Commercialization", *Ontario Government* (website), online: <<http://www.ontario.ca/page/ontario-tax-exemption-commercialization>>.

<sup>110</sup> *Ibid.*

<sup>111</sup> *Ibid.*

but do not serve to provide funding upfront where firms may require it, as in the case of overwhelming outlays for litigation costs. As such, their relief mechanisms provide for inequitable outcomes to those of a SPF.

Effectiveness of tax incentives vs. direct funding

A 2002 study by Bloom *et al.* found that tax incentives might drive innovation by increasing R&D spending in the short and long-term.<sup>112</sup> Specifically, it found that a 10% reduction in the user cost of R&D through tax incentives increases the volume of private sector R&D spending by approximately 1% in the short-term and 10% in the long-term.<sup>113</sup> Recent OECD research supports these findings, demonstrating that a 6% increase in tax incentives increases the level of private R&D by approximately 6% over time.<sup>114</sup>

Recent OECD research also found that direct government funding or subsidies might drive innovation through additional R&D spending.<sup>115</sup> There is, however, little in the way

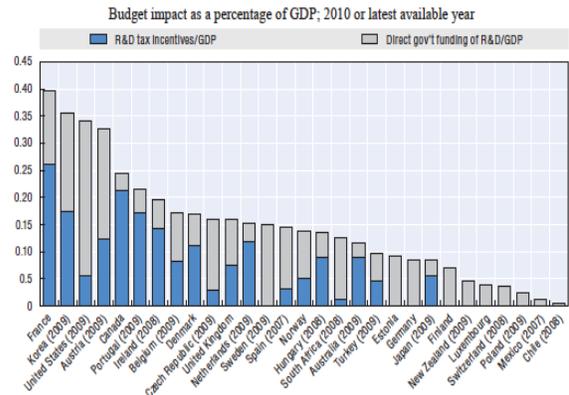


Figure 3. Direct funding of R&D and tax incentives for R&D

of research on the relative effectiveness of tax incentives and direct government subsidies in driving innovation.<sup>116</sup> Research does suggest, however, that direct support does in fact have a larger impact on increased R&D spending than volume-based tax incentives.<sup>117</sup> This result may not, however, be the same across contexts and firms.

<sup>112</sup> OECD, *supra* note 82 at 83.

<sup>113</sup> *Ibid.*

<sup>114</sup> *Ibid.*

<sup>115</sup> *Ibid* at 84.

<sup>116</sup> *Ibid.*

<sup>117</sup> *Ibid.*

Therefore, while fiscal policy may have an important role to play in driving innovation in Canada, evidence-based research does not postulate it as an adequate substitute to direct government funding or the SPFs in question.

### ***Economic policy***

#### Within Quebec: Quebec First Patent Program

In 2013, the Government of Quebec announced the First Patent Program as part of its “Putting Jobs First” economic policy, reaffirming its commitment to Quebec SMEs and the commercialization of innovative products.<sup>118</sup> Specifically, the First Patent Program provides financial and technical assistance to Quebec SMEs applying for their first patent. Michel Gérin, Executive Director of the Intellectual Property Institute of Canada (IPIC), commented on the importance and implications of such a program for Quebec SMEs and the economy more generally as follows:

According to two Québec organizations, the *Observatoire des sciences et des technologies* and the *Institut de la statistique du Québec*, in 2009, 20% of patents in Canada originated from Québec companies, in comparison with 57% from Ontario. Today's intellectual property is a strategic business advantage: the more easily entrepreneurs will be able to access the patent system, the more they will use it. With the support of intellectual property professionals, such as patent agents and trademark agents, SMEs are better equipped than ever to protect their markets and develop new ones.<sup>119</sup>

Two years later, the Ministère de l'Économie, de l'Innovation et des Exportations finally launched the First Patent Program in July 2015. Quebec SMEs comprised of 250 employees or fewer are eligible for the Program. Financial aid available is up to a \$25,000 maximum per project, covering up to 50% of eligible expenses under the Program. Eligible expenses include:

- Patent searches and opinions;
- Validity and infringement opinions;

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<sup>118</sup> Intellectual Property Institute of Canada, “Intellectual Property Professionals Welcome the Announcement of the Government of Québec’s “First Patent” Program”, *Intellectual Property Institute of Canada* (9 October 2013), online: <<https://www.ipic.ca/english/news/government-of-quebec-launches-first-patent-program.htm>>.

<sup>119</sup> *Ibid.*

- Patent application expertise in Canada and abroad;
- Professional service fees; and
- Filing fees.<sup>120</sup>

The First Patent Program reflects a major achievement in Quebec economic policy towards innovation and global economic growth. Importantly, as previously stated, such direct funding has been shown to increase R&D spending and consequently, innovation. Still, the First Patent Program does not serve as an appropriate or adequate substitute to the development of a SPF. First, the Program is only accessible to SMEs applying for their first patent. Second, while the Program provides access to financial and technical assistance by way of professional service fees, whether this includes litigation fees is yet to be seen given the recency of the program's launch. Third, should the Program cover litigation fees, based on the average litigation costs outlined in the Jackson Report, the \$25,000 maximum granted by the Program would not be sufficient to cover said fees. Overall, SPFs offer more flexibility in terms of fund accessibility and expense eligibility.

Additionally, outside Quebec, there are no comparable economic policies to the First Patent Program. In fact, in February 2014, the IPIC made a submission in response to the 2014 Pre-Budget Consultations held by the Ontario Ministry of Finance, urging the province to adopt and implement measures to support Ontario SMEs in the obtainment and enforcement of IP protection.<sup>121</sup> Specifically, the IPIC referred to Quebec's First Patent Program as a model the Ontario government ought to consider.<sup>122</sup> The isolated nature of Quebec's First Patent Program and the non-existence of similar provincial programs throughout the rest of Canada further

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<sup>120</sup> David St-Martin & Tom Zhang, "Launch of Quebec's First Patent Program: A Boost for Quebec-based SMEs" (20 July 2015) *Bereskin & Parr* (website), online: <<http://www.bereskinparr.com/Doc/id615>>.

<sup>121</sup> Ontario, Intellectual Property Institute of Canada, *Innovation and Intellectual Property: Response to Pre-Budget Consultations 2014 Ontario Ministry of Finance* (Ottawa: Intellectual Property Institute of Canada, 2014) at 3.

<sup>122</sup> *Ibid.*

solidifies the necessity of a far-reaching national mechanism, such as a SPF, to help stake and protect the claims of SMEs throughout Canada.

### ***Patent troll policy and legislation***

The adoption of a SPF with a more defensive strategy might become obsolete with the passing and enforcement of policy and legislation regulating patent troll activity. As of yet, however, a comprehensive response has not been formulated in the United States or Canada.

### National response

Relative to the United States, patent trolls are not very prevalent in Canada. This is likely due to the fact that Canada represents a much smaller market than the United States, as well as the Canadian courts' disinclination to grant injunctions, which, in the United States, are leveraged as threats by patent trolls to force dispute settlement.<sup>123</sup> Commentators have also noted that Canada's judicial fee-shifting practices, where the losing party might be ordered to pay the litigation costs of the winning party, are a disincentive to patent troll practices in Canada.<sup>124</sup>

Still, Industry Canada has continued to monitor patent troll activities in both the United States and Canada to inform responses should there be any need in the future. While there has been little patent trolling activity in Canada, its frequency within the United States, nevertheless, warrants concern. In fact, an Industry Canada report asserts that patent trolling comprised a \$29-billion industry in the United in 2011 alone.<sup>125</sup> The report further notes: "Patent litigation is risky, disruptive and expensive, regardless of the merits [...] and operating companies receiving demand letters from patent trolls therefore tend to settle rather than fight."<sup>126</sup>

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<sup>123</sup> Stephen Beney & Tom Zhang, "U.S. Patent Troll Bill Unsuccessful—What is the Situation in Canada?" (28 May 2014), *Bereskin & Parr* (website), online: <<http://www.bereskinparr.com/Doc/id413>> [Beney & Zhang].

<sup>124</sup> *Ibid.*

<sup>125</sup> Brian Burton, "Industry Canada proposed regulation for 'patent trolls'" (27 May 2015), *Lexpert* (website), online: <<http://www.lexpert.ca/article/industry-canada-proposes-regulation-for-patent-trolls>>.

<sup>126</sup> *Ibid.*

The report therefore proposes recommendations to curb the risks of patent trolling in Canada. Specifically, the report includes the following proposed measures: detailed demand letter requirements; a public database for demand letters received; incorporating new measures into the *Competition Act* and so on. These recommendations have not yet been implemented.<sup>127</sup>

### International response

While patent trolling is a profitable industry within the United States, these activities similarly hurt the U.S. economy. Specifically, they delay product delivery and hinder SMEs from properly commercializing their innovation, as funds are tied up in excessive litigation fees.<sup>128</sup> Meanwhile, the United States government recognizes the challenges they pose not only to victimized U.S.-based companies, but also the end consumer. Importantly, patent troll litigation is not only B2B (business-to-business) but also B2C (business-to-consumer), as consumers are litigated against for merely using certain products without a license, despite having no commercial intentions of their own.<sup>129</sup>

Much like those recommendations proposed by Industry Canada, the United States has considered the following measures: fee-shifting; heightened demand letter requirements; increased penalties for bad faith or fraudulent demand letters; and discretionary bonding sufficient to cover the defendant's court fees.<sup>130</sup> In this regard, the House of Representatives passed the *Innovation Act* in December 2013. The bill proposed the adoption of fee-shifting, heightened pleading, transparency and customer stay measures.<sup>131</sup> The bill was ultimately not passed by the Senate. As recently as February 2015, the *Innovation Act* was reintroduced before the House of Representatives. It is awaiting consideration.

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<sup>127</sup> *Ibid.*

<sup>128</sup> Daley, *supra* note 73.

<sup>129</sup> *Ibid.*

<sup>130</sup> Beney & Zhang, *supra* note 123.

<sup>131</sup> *Ibid.*

While the United States recognizes the need for legislative or policy reform in this regard, recent failed attempts are not promising for the likelihood of developments in the near future. As such, in both the case of Canada and the United States, patent troll legislative and policy reform is unlikely to render defensive SPF functions obsolete—at least not in the short-term.

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## OPTIONS

### *Option 1: Start a SPF*

We are currently in a knowledge-based economy where “future economic prosperity will be tied largely to the ability to turn ideas and inventions into marketable products and services.”<sup>132</sup> Many countries are initiating new policy models to spur innovation in an attempt to “provide domestic entrepreneurs with a competitive edge.”<sup>133</sup> The Canadian Federal government should implement a SPF as patents are important to protect ideas and thereby help the country position itself on the cutting edge of innovation.<sup>134</sup> Although SPFs have only recently been established, countries around the world have begun to successfully commercialize some of the patents in their portfolios. To innovate and prosper, Canada must protect its developments.<sup>135</sup> Given the progress made in other countries, it has become crucial that Canada begins to implement a strategy to “enhance competitiveness” in IP and innovation. If not, Canada risks “being left behind in the race to build the highly competitive knowledge-based firms and industries that will drive future employment and economic growth.”<sup>136</sup>

The government should start with a fund that focuses primarily on defensive and retention objectives. To increase profits, it is important that an enterprise be able to conduct its business globally. Many Canadian companies, however, are impeded by foreign patent infringement

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<sup>132</sup> Clarke, *supra* note 3 at 1.

<sup>133</sup> *Ibid.*

<sup>134</sup> Peter Cowan, “On Innovation and Sovereign Patent Pools” (17 September 2014), *Northworks IP* (blog), online: <<http://www.ipstrategy.ca/innovation-sovereign-patent-pools/>> [Cowan].

<sup>135</sup> *Ibid.*

<sup>136</sup> Clarke, *supra* note 3 at 13.

lawsuits. Indeed, a strategist from one of the world's leading technology companies explains that his company waits until a Canadian company is big enough and then they "kill them."<sup>137</sup> A defensive SPF would deter litigation and increase the likelihood that emerging Canadian companies will survive and grow within the global market. Retention goals should focus on acquiring dormant patents or patents from bankrupt companies, such as when Nortel went bankrupt. Similar to France Brevets' approach, it may be preferable to focus on high quality patents in one promising area to begin. While focusing on these two objectives will help enterprises prosper, it will also improve R&D; the patent clusters generated by the fund will make it easier and less expensive for researchers to acquire licenses to proceed with their research.<sup>138</sup> If Canada also opts to include an offensive strategy, it should focus mainly on licensing, with litigation as a means to spur negotiations. Furthermore, this strategy should be limited to those patents being actively engaged at the time so as to differ from patent trolls.

To get started, a fund would require adequate financing as well as a team of "highly qualified IP professionals."<sup>139</sup> According to research performed by the DEEP Centre, a fund would "likely require an initial investment of \$CAD100-200 million" in addition to costs for establishing a team of experts. Canada is one of the "highest per capita government spenders on R&D" and has recently committed hundreds of millions of dollars to stimulate innovation.<sup>140</sup> That being said, if the government is reluctant to invest this much capital into a SPF, it could also seek additional financing from private companies, either through the co-ownership of certain patents, as is the case in France, or by allowing enterprises to become shareholders in exchange for a license to its patents, as modeled by South Korea's SPF.

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<sup>137</sup> Balsillie, *supra* note 25.

<sup>138</sup> Clarke, *supra* note 3 at 4.

<sup>139</sup> *Ibid* at 10.

<sup>140</sup> Jobs and Innovation, *supra* note 53.

Overall, it is important for Canada to gather resources and start establishing its own SPF. The “enforcement side of the patent system” is a “billion-dollar opportunity” and if Canada does not make a move to harness it, others will—and they have already begun.<sup>141</sup>

***Option 2: Research first, SPF later***

Given the uncertainty surrounding operationality, success and compliance with international regulations and agreements, as well as its present negative branding as a “state-sponsored patent troll,” the Canadian government might benefit from researching the prospect of adopting and implementing a SPF for several years prior to its actual launch. Many commentators, both for and against SPFs, have suggested that at present there is simply not enough evidence to make any design and structure recommendations grounded in evidenced-based best practices. According to the OECD, collecting significant research is the safest and soundest option to ensure SPF sustainability:

The implementation of policy experiments such as patent funds needs to be matched by a conscious investment in gathering evidence on their impact. Given the relatively limited public funds devoted so far to these policies, it is important to improve the evidence base before significant policy scale-up. Furthermore, without strong supporting evidence, these efforts are likely to be discontinued, whatever their actual merits.<sup>142</sup>

It is difficult to determine what the cost of performing said research would be or how long it would take to be satisfied or dissatisfied by the results. Only a handful of SPFs currently exist and so, the benefit of research at this time seems somewhat minimal and perhaps unrepresentative. It is likely however that substantive research would require a capital outlay in the millions of dollars, particularly spent on researcher salaries and hourly rates; database use licensing; and software. Given Canada’s research-oriented and risk averse culture, these costs might not pose a hurdle to gaining further insights on the effectiveness of SPFs.

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<sup>141</sup> Cowan, *supra* note 134.

<sup>142</sup> OECD, *supra* note 82 at 281.

Recently, the DEEP Centre announced that it would be launching a research project to better understand the functionality and application of SPFs within the Canadian climate. More specifically, the project will consider the nuances of existing SPFs' objectives and strategies. The Centre will thus utilize data from national and international patent offices to determine commonalities and differences between existing SPFs, recognize best practices and consequently, inform public debates regarding SPFs and their usefulness within the Canadian context.<sup>143</sup> The cost and time length of this project has yet to be announced.

Importantly, whether in Option 1 or Option 2, research would need to play an ongoing role, as Canada learns and improves upon its SPF strategies and models through practice. Their impacts, foreseen and unforeseeable, would have to be continuously monitored so as to help shape a SPF strategy that is in line with best practices and Canadian culture. What is perhaps distinctive about this option relative to Option 1 is the large amount of time and money Canada would be spending prior to the implementation of a SPF strategy, which may allow the fund to run smoother more quickly but also increases the likelihood that Canada will gain little to no strategic advantage and room to adapt its model through practice as a late mover to the SPF scene.

### ***Option 3: Set up a commercial incubator***

There is a large gap between funding research and the development of patents that may be monetized. As mentioned, Canadian enterprises have an abundance of innovative ideas but little patents to show for it. This problem is in part due to the fact that “too many Canadian start-ups and small or medium enterprises lack IP strategies,” and those that do have strategies, often do not have viable ones.<sup>144</sup> Hence, Canadian enterprises lack the tools necessary to transform ideas

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<sup>143</sup> DEEP Centre, *supra* note 10.

<sup>144</sup> Balsillie, *supra* note 25.

into profits. A way to increase innovation and the profits derived from it is to assess the factors that contributed to an innovative area's success. Silicon Valley became "the paragon of a knowledge economy" and developed "history's most powerful and popular platforms for instant communications."<sup>145</sup> One of the elements that played a part in Silicon Valley's success is the fact that "patent-protection strategies are present at all phases of R&D."<sup>146</sup> There is a need to educate and encourage the commercialization of ideas in Canada that could be met by establishing a commercial incubator.

The commercial incubator should be comprised of business and IP experts. Business experts will provide guidance on how to commercialize and market an idea while the IP experts will provide knowledge on which patents may need to be filed or licensed (perhaps from the fund itself). The service should be easily accessible for small and medium enterprises. The goal is to provide knowledge about IP and its commercialization so that enterprises can realize the value of their patents by themselves. Many countries have already acknowledged the importance of IP expertise for "the growth and success of domestic companies, particularly start-ups operating in knowledge-intensive industries."<sup>147</sup> Moreover, DEEP Centre research has iterated that providing this expertise is "one of the most important roles played by SPFs" to help domestic enterprises grow. France Brevets has put a lot of resources into building a "pool of IP management expertise" that primarily focuses on monetization strategies.<sup>148</sup> Furthermore, a readily accessible source of information promotes another key factor to spurring innovation and its derived profits: cross-fertilization between firms in different industries, legal experts and business experts.<sup>149</sup>

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<sup>145</sup> Anupam Chander, "How Law Made Silicon Valley" (2013) 63 Emory LJ 639 at 690.

<sup>146</sup> Balsillie, *supra* note 25.

<sup>147</sup> Clarke, *supra* note 3 at 4.

<sup>148</sup> *Ibid* at 4.

<sup>149</sup> Kevin Stolarick & Richard Florida, "Creativity, connections and innovation: a study of linkages in the Montreal Region" (2006) 38 Environment and Planning 1799-1815.

Due to limited resources both financially and in terms of mentors, access to this commercial incubator should be limited to ideas that show promise for future profits. Business and IP experts can consult to determine which ideas will receive their attention. Although there is always risk when commercializing new ideas, the selection process will increase the likelihood of helping profitable ideas reach the market.

Additionally, grants should be provided based on an “ideas-protection strategy” that rewards the commercialization of research.<sup>150</sup> These grants could be awarded to enterprises that seek funding to commercialize their ideas, as well as research institutions that attempt to patent and monetize their research. This incentive may also change employment policies in universities so that researchers are hired based on their ability and willingness to market their ideas.

Furthermore, having a single incubator to spur commercialization, instead of funding various university IP centres, removes the difficult talks of distributing funds between each centre, which are located in different, and not all, provinces. University centres, such as the Centre for Intellectual Property Policy at McGill University, conduct research and offer training in IP. Still, the incubator has an additional element: a direct mentoring service with advice on patenting and commercializing that may be more specific to the enterprise or university using the service. Nonetheless, the commercial incubator should take notice of the research conducted in these centres and could also undertake joint initiatives with IP centres in universities in their mission to disseminate IP knowledge.

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## **RECOMMENDATIONS**

This paper recommends a hybrid of Option 1 and Option 3, as they compliment each other to provide a comprehensive solution that will help innovative Canadian SMEs prosper. Funds committed to this initiative should initially be split with a higher proportion going to the

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<sup>150</sup> Balsillie, *supra* note 25.

establishment of a SPF to acquire patents but over time, an increasing portion of the funds should be funnelled to the commercial incubator to encourage enterprises to monetize their IP themselves.

### ***First Recommendation: Option 1 - Start a SPF***

The first option is recommended, as it gives Canada a first mover advantage in the innovation market. The fund will spur R&D and its transition into marketable products, thereby allowing domestic companies to grow. The potential drawbacks of establishing a SPF fund sooner rather than later are that financial and human capital would need to be procured right away and given what little information presently exists on SPFs, success is uncertain. That being said, the many benefits of establishing a SPF outweigh these risks.

### **Patent retention**

Establishing a SPF with a focus on the purchase of dormant patents and patents from bankrupt companies will help retain patents within Canada. As mentioned, many foreign companies spent millions of dollars in a contested auction to purchase Nortel's patents when it went bankrupt. These companies are already reporting profits from this investment. For example, it has been reported that Microsoft is already "extracting payments from a number of companies" based on these patents.<sup>151</sup> These patents were created by a Canadian enterprise and are now generating profits for foreign enterprises. It is imperative that Canada starts investing to retain its patents and the profits they are capable of generating.

### **Fight patent trolls**

A SPF will also help domestic firms expand to global markets by protecting them from patent trolls. While patent troll activities are presently negligible within Canada, many Canadian

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<sup>151</sup> Charles Arthur, "Nortel patents sold for \$4.5bn" *The Guardian* (1 July 2011), online: <<http://www.theguardian.com/technology/2011/jul/01/nortel-patents-sold-apple-sony-microsoft>>.

enterprises are attacked with patent infringement lawsuits when they attempt to enter the U.S. market. As previously mentioned, most of these lawsuits are initiated by patents trolls who rely on the threat of costly litigation to pressure companies into settlement agreements. This practice discourages innovation and competition and it affects Canadian enterprises' ability to grow and make profits, consequently damaging the Canadian economy.<sup>152</sup> The Canadian Federal government cannot wait for U.S. patent reforms to regulate patent troll activities. U.S. legislative and policy reform may take years and if legislation is even enacted, its effectiveness is uncertain. Canada has to take control of its future prosperity by taking positive steps to stimulate the growth of domestic enterprises. A SPF would have a pool of patents at its disposal to deter frivolous patents lawsuits with the threat of fighting back against these claims.<sup>153</sup> The patent pool may also be used to bolster Canadian enterprises' negotiation power in settlement agreements for claims brought forward. Hence, a SPF would help Canadian firms grow domestically and internationally, reducing the costs associated with patent litigation.

### **Consistent with government goals and Canadian culture**

The funding used to establish a SPF would be consistent with the new majority government's objectives to support research and innovation.<sup>154</sup> Furthermore, Canada can imitate the model, structure and governance of other SPFs to alleviate the financial burden. As mentioned previously, SPFs in France and Korea are partly facilitated through private funding.<sup>155</sup> The creation of a SPF would also be consistent with Canada's risk averse culture, as increased perception and sentiment that domestic firms are well-protected from patent trolls by SPFs will likely encourage more domestic enterprises to innovate and expand into other markets.

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<sup>152</sup> Clarke, *supra* note 3 at 2.

<sup>153</sup> *Ibid.*

<sup>154</sup> Jobs and Innovation, *supra* note 53.

<sup>155</sup> Levine & Kim, *supra* note 49; Ellis, *supra* note 5.

Furthermore, the proposed model, comprised of both defensive and retention strategies or objectives, escapes one of the main criticisms related to SPFs; specifically, that they are state-sponsored patent trolls and thus, deter innovation.

### **Take advantage of an existing market**

Canada should not delay its investment into a SPF. The patent market is expanding and others are already taking advantage of it.<sup>156</sup> Money generated globally from licensing agreements has increased significantly in the past decades. Many competing countries are beginning to turn a profit from the commercialization and monetization of patents.<sup>157</sup> Meanwhile, Canada has a net deficit of \$4.5 billion spent on licensing agreements.<sup>158</sup> Many SPFS are already monetizing their patents. These SPFs are learning through action and asserting their competitive advantage while improving their business models to determine which functions ought to be prioritized. Waiting too long to establish a domestic SPF might render the option obsolete. Canada needs to take advantage of this market to compete globally. By establishing a SPF and a commercial incubator, Canada will increase its retention and creation of patents and accordingly, the likelihood of generating profits through licensing agreements.

### **Evolve through practical application**

Although waiting to engage in more research prior to establishing a SPF may afford Canada more time to amass the necessary funds, learn from best practices and assess the U.S. climate, Canada's decision to wait runs the risks of rendering the country a late mover to the SPF scene. Given that the proper purpose for a Canadian SPF is presently unknown, a late move for Canada may close off the SPF model from the country altogether. While SPFs do not create a governmental arms race, there is an obvious advantage to being a first mover in the development

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<sup>156</sup> Cowan, *supra* note 134.

<sup>157</sup> *Ibid.*

<sup>158</sup> *Ibid.*

of a SPF as the crop of patents from which you can purchase is likely to be vaster and of higher quality. Should many other countries choose to take up the model before Canada, Canada may find themselves in a position where the initial outlay of human and financial capital is not worth the risk or quality of their asset holdings. Consequently, Canada might be pushed into pursuing a SPF objective that is not compatible with their IP landscape or culture, making adoption of the SPF unsustainable and unpalatable. Furthermore, the government runs the risk of performing research only to turn up an inconclusive or unconvincing result and thus, abandoning the idea of implementing a SPF altogether after having spent an unprecedented amount of money in the evaluation phase. While it makes little sense to pursue a model that is a sure fail, it is important to remember that research cannot prove a negative. SPFs might be extremely successful in Canada but this might only be gleaned through practical application and implementation. By implementing a SPF right away, Canada will be able to evolve and evaluate its SPF over time and may focus on different objectives that will maximize the SPF's efficacy.

***Second Recommendation: Option 3 – Set up a commercial incubator***

We recommend that the third option of providing IP-specific legal and business consultation services be implemented, regardless of whether the first option is chosen.

**Consistent with Canada's goals and culture**

Canada spends many resources to stimulate research and has the potential to generate many new patents.<sup>159</sup> However, Canada has few patents to show for its research and is currently unable to generate a net profit from the patents that it does possess.<sup>160</sup> This issue is mainly caused by SMEs' lack of knowledge and resources required to commercialize their ideas and the lack of

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<sup>159</sup> Munro, *supra* note 15.

<sup>160</sup> Mazurkewich, *supra* note 12.

accessible sources of expertise.<sup>161</sup> Indeed, Canada has put relatively little resources and efforts into the conversion of ideas into marketable products. The recently appointed Prime Minister has pledged to invest in innovation.<sup>162</sup> A commercial incubator would be consistent with that goal and would help fill the gap between research and profits. The incubator would provide a source of expertise in IP and business matters to help enterprises understand how to extract value from their ideas. This option would also be consistent with the risk averse culture in Canada, as experts will be providing guidance to SMEs at every step of the process – from patenting to marketing to distributing and enforcing.

### **Easily accessible expertise**

The incubator's expertise would be easily accessible to the public. Due to limited financial and human capital, there should be a selection criterion to access the incubator's mentors and funding. Mentors will help guide enterprises with their IP-related business decisions while the funds will help their products reach the market, for example by contributing to production or advertising. This selection criterion will contribute to an increase in local innovation and competition, as well as ensure that ideas demonstrating potential for success are afforded the ability and opportunity to enter the market. Additionally, the incubator's experts could work together to build a document, easily accessible to the public, written in plain language, which would bring awareness as to the importance of commercializing ideas and helping enterprises realize the value of their intellectual property. While the SPF will protect companies so they can grow, educating enterprises will encourage them to manage their own IP portfolios successfully in the future.

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<sup>161</sup> Clarke, *supra* note 3 at 4.

<sup>162</sup> Jobs and Innovation, *supra* note 53.

## **Dissemination and long-term benefits**

The incubator may be less costly and offer long-term benefits. Once enterprises learn how to extract value from their patents, the need for the incubator's resources will diminish. Furthermore, once the expert knowledge starts being transferred to some enterprises, it can be disseminated through cross-fertilization between companies without further contributions from the incubator. As long as there are no major changes in the way IP and markets function, this knowledge will be a valuable tool for success for many years to come.

## **Measuring success**

As the SPF and commercial incubator will be receiving governmental resources, a transparent and standardized method of reporting should be developed. DEEP Center co-founder Dan Herman gives the example of TEC Edmonton, which provides “annual data on incremental job creation, revenue generation and follow-on investment attraction recorded by their clients.”<sup>163</sup> The goal of the SPF and commercial incubator is to increase revenue generated from IP. Therefore, while intangible impacts, such as the transmission of skill and knowledge are valuable, data that measures the success of the enterprises that access these resources are necessary to determine if the investment is worthwhile or how the programs may be improved. As the SPF also contains a defensive objective, a decrease in the number of patent lawsuits could also be assessed, although this measure would merely reflect correlation between these two elements rather than causation.

Overall, Option 1 and 3 would work symbiotically to maximize the growth of domestic enterprises. While the commercial incubator would encourage the creation of patents and their transition into profitable products, the SPF would be able to pool these patents together to defend

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<sup>163</sup> Dan Herman, “Canada needs a reporting framework to help build entrepreneurial success” (30 June 2015) *Centre for Digital Entrepreneurship and Economic Performance* (website), online: <<http://deepcentre.com/news/canada-needs-a-reporting-framework-to-help-build-entrepreneurial-success>>.

domestic companies from foreign litigation, mainly lawsuits from patent trolls. Hence, the incubator would generate patents while the SPF would provide firms with the ability to protect and enforce them. Importantly, the commercial incubator should be pursued regardless of whether or not Option 1 is ultimately implemented, as it would provide valuable knowledge to enterprises in an attempt to make them competent in managing their own patent portfolios.

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