

Mobilizing National Innovation Assets:

UNDERSTANDING THE ROLE OF SOVEREIGN PATENT FUNDS

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deepcentre

Centre for Digital Entrepreneurship
+ Economic Performance





About the DEEP Centre

The Centre for Digital Entrepreneurship and Economic Performance (DEEP Centre) is a Canadian economic policy think-tank based in Waterloo, Ontario. Founded in 2012 as a non-partisan research firm, the DEEP Centre's work shapes how jurisdictions build fertile environments for launching, nurturing and scaling companies that will thrive in an increasingly connected world. The DEEP Centre provides objective research and advice on the changing drivers of success in the global economy and the critical interconnections between technology, entrepreneurship and long-run economic performance. Its research and advisory services help policymakers identify and implement powerful new policies, programs and services to foster innovation, growth and employment in their jurisdictions.

About the Sovereign Patent Funds Project

Despite their growing track record of activities in patent markets, knowledge of sovereign patent funds in legal, business and public policy circles remains limited. Building on previous DEEP Centre research, this paper aims to build a more granular and empirically robust account of the objectives and strategies of existing SPFs by examining their holdings and transaction history in the global IP markets. In doing so, it provides much needed background to inform ongoing discussions on SPFs.

The first section of the paper provides a brief overview of the SPF model. The paper then provides a more detailed exploration of the holdings and transaction histories of the three most active and established SPFs: South Korea's Intellectual Discovery, France Brevets, and Japan's IP Bridge. Due to both the availability of data and the focus of these funds, this work concentrates predominantly on the assigned holdings of these funds in the United States. The third section of the paper directly addresses the issue of patent assertion by SPFs, highlighting cases in which these funds have sought to extract value from their portfolio through litigation. Finally, the paper concludes with a series of broader insights for policymakers both in Canada and around the world.

Among our various findings, one of the key themes is the diversity of missions and subsequent strategies embraced by existing funds. In this context, the design and implementation of SPFs in other jurisdiction must pay careful attention to matching desired policy ends with the correct structure, accountability, strategy, and the human and financial resources necessary to achieve them.



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Mobilizing National Innovation Assets: Understanding the Role of Sovereign Patent Funds

Intangible knowledge resources, expressed in the form of intellectual property (IP), are increasingly viewed as the key to value creation and growth in the modern innovation economy. As a result, IP has become subject to government intervention intended to enhance the competitiveness of domestic firms. While these interventions remain diverse across jurisdictions, a small group of countries have established purpose-built vehicles to facilitate direct state intervention in patent markets. Beginning in the early years of this decade, these so-called sovereign patent funds (SPFs) can be defined as organizations that seek to acquire patents in the service of national economic interests.¹ While governments have historically owned patents rooted in their own research and development operations, SPFs are distinct forms of state action insofar as they operate as secondary intermediaries in patents markets, acquiring patents from external sources rather than developing technology in-house. Operating most notably in South Korea, Japan and France, for roughly the past five years, these organizations have acquired patents, sought to licence them, and in a select number of cases pursued litigation directed against foreign firms.

Despite their growing track record of activities in patent markets, knowledge of SPFs is limited. While previous research undertaken by the DEEP Centre has sought to draw attention to these funds, economic policymakers, academics, and legal professionals alike remain relatively unaware of their missions, holdings, and strategies.² Moreover while a small number of policy briefs and working papers have provided some insight into the operations and potential implications of SPFs, many questions remain unanswered. This paper aims to build a more granular and empirically robust account of the objectives and strategies of existing SPFs by examining their holdings and transaction history in the global IP markets. In doing so, it provides much needed background to inform ongoing discussions on SPFs.

The first section of the paper provides a brief overview of the SPF model. The paper then provides a more detailed exploration of the holdings and transaction histories of the three most active and established SPFs: South Korea's Intellectual Discovery, France Brevets, and Japan's IP Bridge. Due to both the availability of data and the focus of these funds, this work concentrates predominantly on the assigned holdings of these funds in the United States. The third section of the paper directly addresses the issue of patent assertion by SPFs, highlighting cases in which these funds have sought to extract value from their portfolio through litigation. Finally, we conclude with a series of broader insights for policymakers both in Canada and around the world.

¹ Clarke, Warren. 2014. The Rise of Sovereign Patent Funds: Insights and Implications. DEEP Centre Paper. http://deepcentre.com/wordpress/wp-content/uploads/2014/09/DEEP-Centre-The-Rise-of-Sovereign-Patent-Funds_SEPT-2014.pdf

² See for example: Clarke, Warren. 2013. The Emergence of Sovereign Patent Funds. DEEP Centre Blog. <http://deepcentre.com/blog/the-emergence-of-sovereign-patents-funds>; Herman, Dan. 2013. "In the National Interest?" Policy Options. <http://policyoptions.irpp.org/magazines/vive-montreal-libre/herman/Clarke>; Warren. 2014. The Rise of Sovereign Patent Funds: Insights and Implications.



Among our various findings, one of the key themes is the diversity of missions and subsequent strategies embraced by existing funds. In this context, the design and implementation of SPFs in other jurisdiction must pay careful attention to matching desired policy ends with the correct structure, accountability, strategy, and the human and financial resources necessary to achieve them.

Sovereign Patent Funds: An Overview

While competition between countries in the area of IP and innovation is longstanding, SPFs are a relatively recent invention. Pre-cursors to this phenomenon undoubtedly exist, particularly through the use of state-owned enterprises, as well as private, but publicly subsidized, corporations used as tools for generating and harnessing IP in particular technology areas. Nevertheless, the creation of purpose built vehicles intended to allow for direct state involvement in patent markets is relatively recent. The three funds highlighted here all began their operations and subsequent patent acquisitions between 2010 and 2013. As a result, the effectiveness of SPFs in achieving their key policy objectives remains difficult to establish at this early stage.

There has, however, been no shortage of criticism of these new funds. Particularly vocal critics in the United States have alleged that these funds are little more than “state-sponsored patent trolls.” At the same time, more nuanced accounts have pointed to the diverse array of objectives and strategies embraced by these funds.³ Four broad types of goals can be seen in the stated missions and public activities of active funds. The first group of defensive objectives includes the protection of domestic firms from litigation or the threat of litigation by foreign companies or patent assertion entities (PAEs). A corollary of this objective is securing freedom to operate for domestic firms by acquiring patents that could otherwise enter the portfolios of competitors or PAEs. Second, SPFs also possess specific financial objectives, including securing a return on investment (ROI) through investment, licensing, and/or litigation activities. Thirdly, and perhaps least well-known, SPFs also possess a series of service objectives tied to their intermediary function in patent markets, which may include the provision of IP advice to small firms or individuals. Finally, the fourth series of objectives can be categorized broadly as international trade objectives. Within this broader category two types of strategies are apparent. The first focuses on the preservation of domestic IP resources and the prevention of so-called “IP leakage” or “IP flight.” The second and distinct strategy involves the use of SPFs as a potential non-tariff barrier to trade in goods. In this context, an SPF could – in theory – acquire and leverage patents domestically in an attempt to gain an injunction and deny market access to foreign firms.

³ Adapted from: Clarke, Warren. 2014. The Rise of Sovereign Patent Funds: Insights and Implications; Clarke, Warren. Forthcoming. Sovereign Patent Funds: Sovereign Wealth Funds 2.0? Global Policy. See also: Monroig, Miyuki and Patrick Terroir. 2012. Inside Asia's Patent Funds. IAM Magazine.; Lee-Makiyama, Hosuk and Patrick Messertlin. 2014. Sovereign Patent Funds (SPFs): Next Generation Trade Defence? ECIPE Policy Briefs. <http://ecipe.org/app/uploads/2014/12/PB06.pdf>; Ellis, Jack. 2015. It's Time to Talk About Patent Funds. IAM Magazine. <http://www.iam-media.com/magazine/issue/70/Cover-story/Its-time-to-talk-about-patent-funds>



While a number of authors have highlighted one or more of these objectives and subsequent strategies as potential orientations and future trajectories of SPF activity, little analysis has been conducted of their operations to date. With the major SPFs now in operation for between three to five years, data is now available that can be used to draw more concrete conclusions about the nature and activities of these funds.

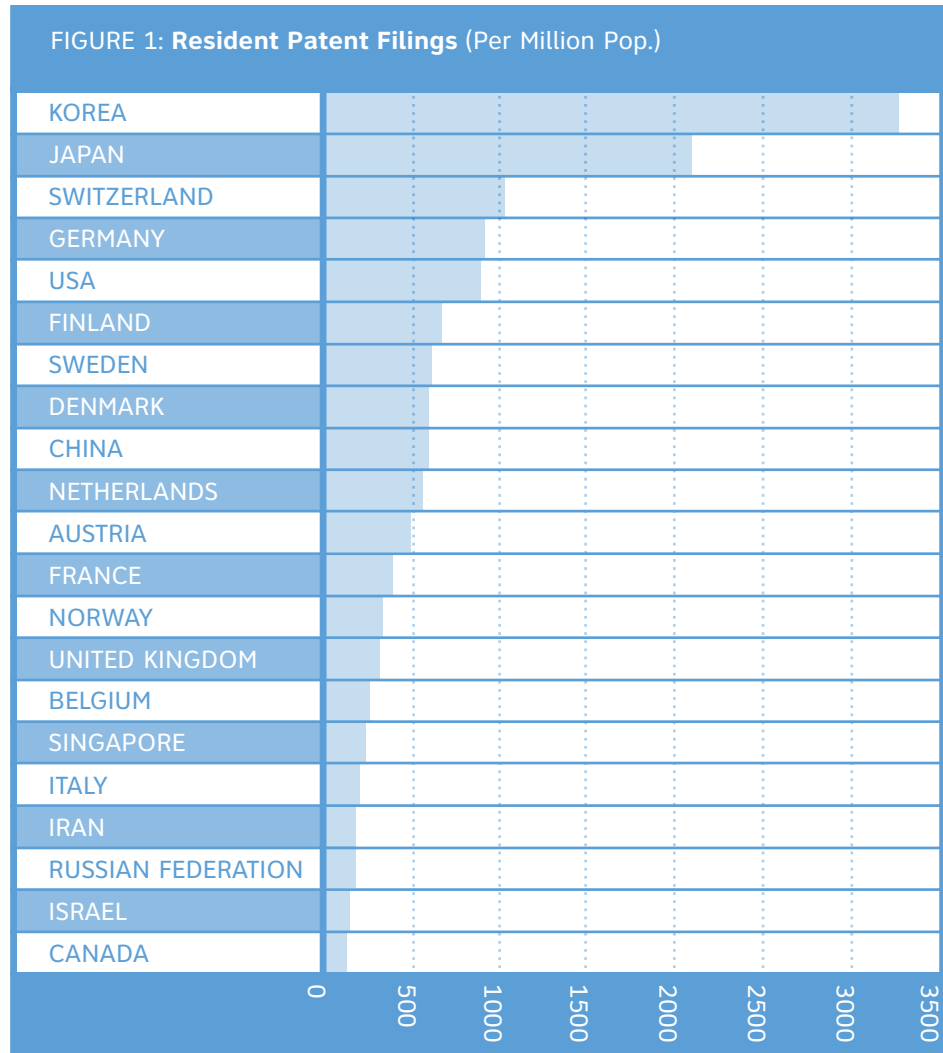
Our findings herein remain preliminary and a few important caveats are worth noting. First and most importantly, due to a series of limitations the data provides only a partial picture of the activities of these funds. Our analysis – based on data from major patent offices – highlight only granted patents that are explicitly assigned to SPFs, or those that have been assigned to purpose built entities for the purposes of litigation. As such, the data largely excludes patents held by affiliates or third party entities. In addition, the data does not reflect potentially large numbers of cases in which SPFs have entered into joint agreements for the purposes of monetizing patents held by third parties. Finally, due to lags in reporting, data from 2015 – the most recent year recorded – is most likely to be incomplete. Still, despite these omissions, the data provide a reasonable reflection of the activity within and across these funds, and the basis for broader conclusions about their objectives and strategies.

The Funds

South Korea's Intellectual Discovery

In a relatively short period of time, South Korea has grown from a small developing economy to a strong developed market boasting globally competitive firms in a number of high-technology sectors. Brands like Samsung, LG, and Hyundai have become major exporters, gaining brand recognition and market share around the world. At home, South Korea's commitment to technology development is evident in its strong performance in business research and development spending, which is among the highest in the Organization for Economic Cooperation and Development (OECD) countries measured as a percentage of GDP. South Korean nationals also score highly with respect to global patent applications. According to data from the World Intellectual Property Organization, two Korean firms – Samsung Electronics and LG Electronics – were among the top ten patent applicants globally between 2003 and 2012. The country currently also boasts the world's highest "patent activity intensity," measured by patent applications as a percentage of GDP.⁴

⁴ World Intellectual Property Organization. 2015. World Intellectual Property Indicators. http://www.wipo.int/edocs/pubdocs/en/wipo_pub_941_2015.pdf

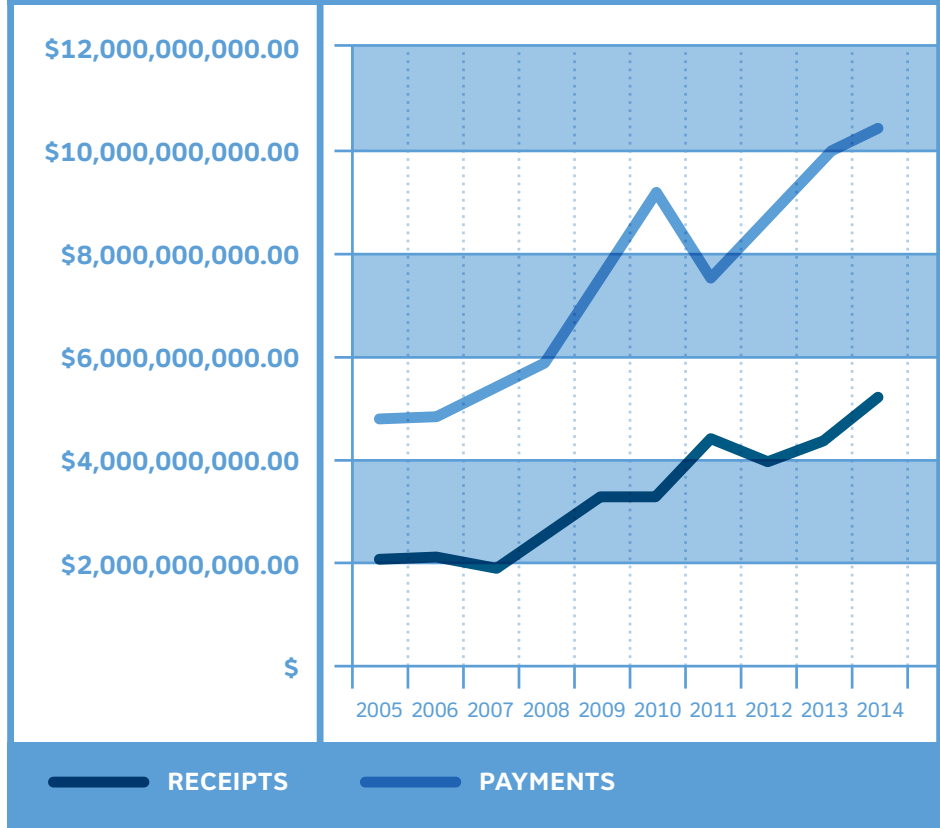


Despite these positive markers with respect to the development of their innovation-base and the competitiveness of domestic firms, Korea continues to suffer from a significant trade deficit in IP. As the chart below illustrates, South Korea's external payments for the use of IP have consistently exceeded the royalty revenues derived from the country's own resources, a fact that continues to cause concern for policymakers.⁵ At the same time, Korean firms have been heavily targeted for litigation both by foreign corporations – particularly via the 'patent wars' between Samsung and Apple – as well as by PAEs.

⁵ Ellis, Jack. 2014. Korea Leads the World In R&D Spend, But is Still a Net Importer of Technology. IAM Magazine. <http://www.iam-media.com/blog/detail.aspx?q=ee6fc8ec-8495-41aa-89f1-99aff1ffa8>



FIGURE 2: South Korea IP Payments and Receipts

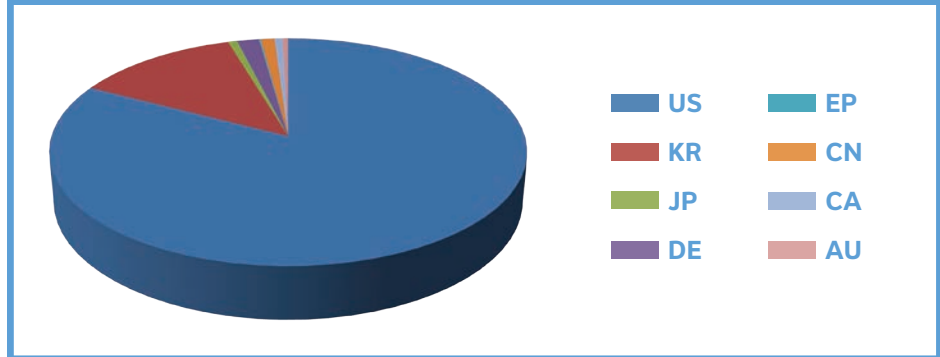


Amid broader discussions centred on the need to better protect and commercialize the country's IP, Intellectual Discovery – the South Korean SPF – was established in 2010. Capitalized with an initial investment of \$45 million, the fund and its affiliate organizations now claim to manage more than \$500 million, with world-wide transactions and a portfolio of 3,800 patents.⁶ Our search uncovered a somewhat smaller number of patents (1428) assigned to Intellectual Discovery. Of those patents, the majority (82%) are assigned in the United States.

⁶ Intellectual Discovery. Overview. <http://www.i-discovery.com/site/eng/>

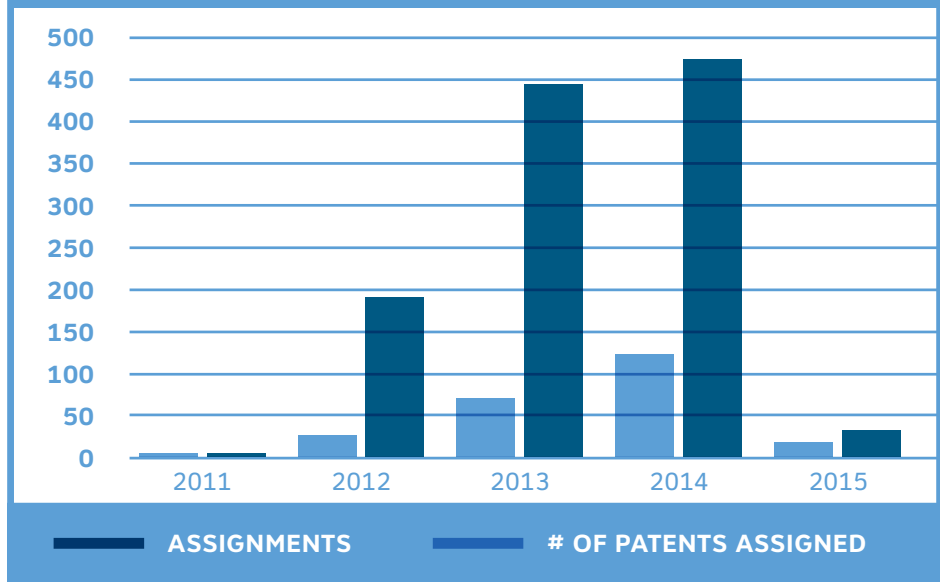


FIGURE 3: Intellectual Discovery Assigned Patents by Country Office



While Intellectual Discovery holds most of its assets in the US, the majority of those patents were originally assigned to Korean companies or nationals. The organization is the assignee on 682 patents originally assigned to Korean-based individuals or organizations, compared to only 302 from the US. The group’s US patents were acquired through a series of 242 assignments between 2011 and 2015. So far, Intellectual Discovery’s most active years – both in terms of number of assignments and number of patents assigned – were 2013 and 2014.⁷

FIGURE 4: Intellectual Discovery US Patent Assignments



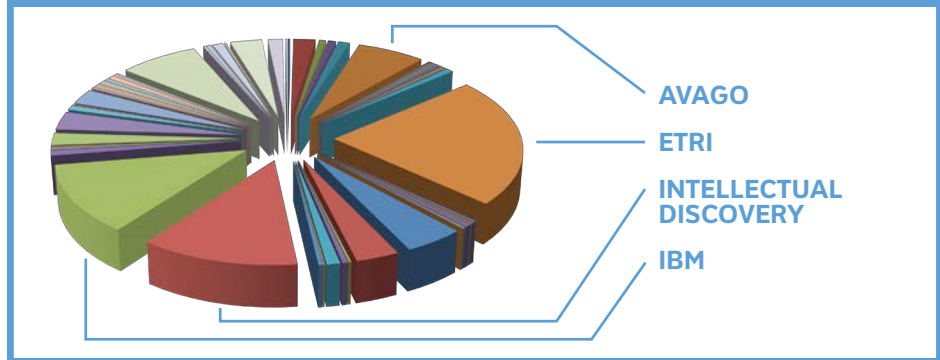
While the majority of Intellectual Discovery’s US patent assignments transferred a relatively small number of patents, a few significant deals stand out. In 2012,

⁷ As noted previously, assignments data from 2015 is most likely incomplete due to lags in data reporting. This phenomenon was observed across the three funds examined here.



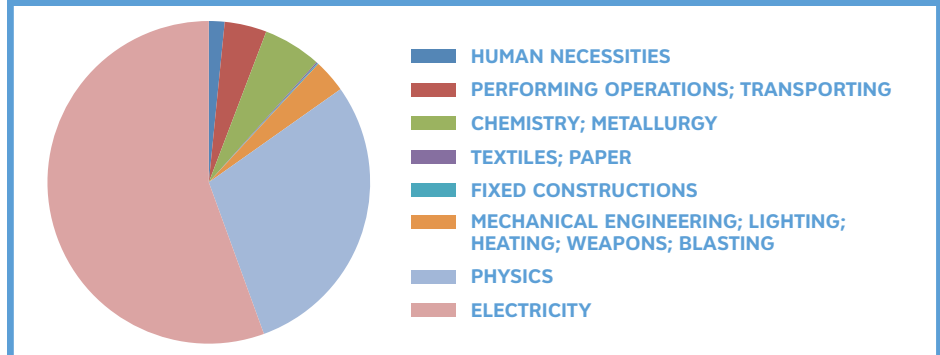
the fund became the assignee of 104 patents transferred from Avago Technologies related to display technologies.⁸ In mid-2014, the fund also became the assignee on a collection of 90 patents previously held by Samsung Electronics. All together, Intellectual Discovery's US patents have been acquired from just over sixty organizations. Of these, the largest share (269) was originally assigned to the Electronics Telecommunications Research Institute (ETRI), a Korean technology development organization founded in 1976. Intellectual Discovery has also acquired a significant number of patents from IBM, Samsung Electronics, and Avago Technologies. Intellectual Discovery itself is the original assignee for 142 US patents.

FIGURE 5: Intellectual Discovery, Previous Patent Assignees - US



Consistent with other SPFs, Intellectual Discovery's patents are heavily concentrated under the broad IPC classifications of 'physics' and 'electricity.' Breaking Intellectual Discovery's patents down by subcategory subsequently reveals a strong focus in the area of computing, calculating and counting, basic electronic elements, and electric communications technologies.

FIGURE 6A: Intellectual Discovery Assigned Patents by IPC Classification



⁸ While Intellectual Discovery's transaction with Avago has been widely reported on, the specific details and motivations for the transaction remain unknown to the authors at the time of publication.



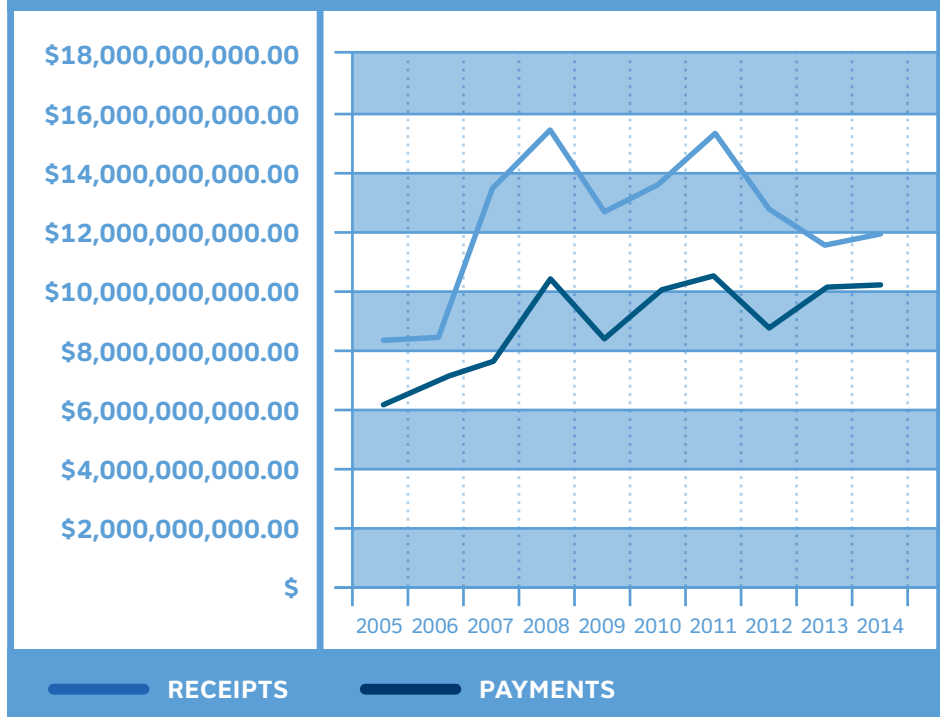
FIGURE 6B: TOP IPC CLASSIFICATIONS

PHYSICS AND ELECTRICITY	% OF TOTAL
Measuring; Testing	4%
Computing; Calculating; Counting	11%
Basic Electric Elements	31%
Electric Communication Technique	19%

France Brevets

With respect to IP protection, France is more strongly associated with geographical indicators (e.g. Champagne) than with technology patents. Nevertheless, the country has made progress in promoting domestic innovation ecosystems. As a percentage of GDP, France’s research and development spending is roughly in the middle of the pack among OECD countries. On the output side, France ranked sixth in global patent filings by origin in 2014, with particular focus and strength in transportation technology. Similarly, from 2003 and 2012 a single French firm – Peugeot Citroen – was among the top 100 patent applicants globally.⁹ The country has also maintained a modest surplus in IP trade.

FIGURE 7: France IP Payments and Receipts



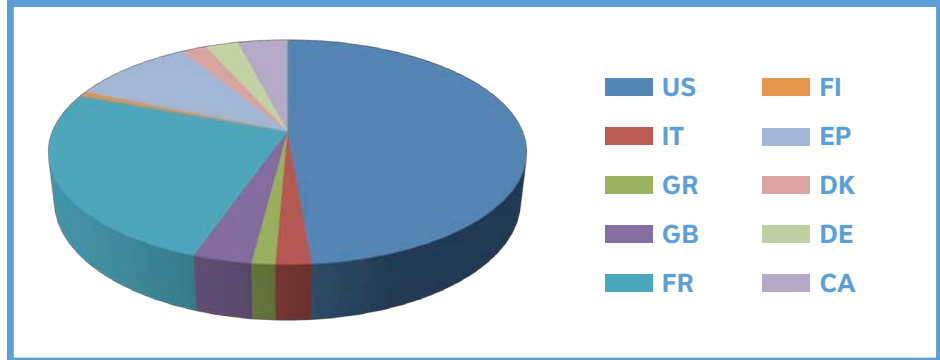
⁹ World Intellectual Property Organization. 2015. World Intellectual Property Indicators.



Currently the only SPF operating outside of Asia, France Brevets was established in 2011 as a joint initiative between the government and the country's national investment bank, the Caisse des Depots et Consignations. Operating as an investment fund with return on investment (ROI) objectives,¹⁰ the organization has received financing of €100 million with the aim of "build(ing) strategic patent positions and monetizing them through effective and focused licensing efforts."¹¹ In describing their business model, the fund notes that "France Brevets deploys the financial capabilities needed to build strong patent portfolios and to monetize them, while the ownership typically remains in inventor's hands. Licensing revenues are then shared between the inventor and France Brevets on a fair basis."¹²

Within this business model, France Brevets appears to take a relatively limited and selective approach to engagement. Our search uncovered only 150 patents assigned directly to France Brevets, a significantly smaller number than held by other comparably capitalized SPFs. This limited number of assignments is likely due to France Brevets operational structure, which emphasizes acquiring patent licences with the right to sub-licence, rather than direct acquisition. In addition, France Brevet's patent portfolio is more evenly distributed geographically than that of Intellectual Discovery, with approximately half (48%) the organizations portfolio held in the US. The remainder of the organization's patents are held in Europe and North America, with no holdings in emerging market countries.

FIGURE 8: France Brevets Assigned Patents by Country Office



The French fund acquired its largest number of US patents in 2011, with the overall number of transactions declining through the following years. The fund's single largest US assignment also occurred in 2011 with the transfer of 40 patents from Thomson Licensing, itself a market intermediary. The following year, the fund was assigned 17 patents from CDC Propriete Intellectuelle. The number of assignments was highest in 2014.

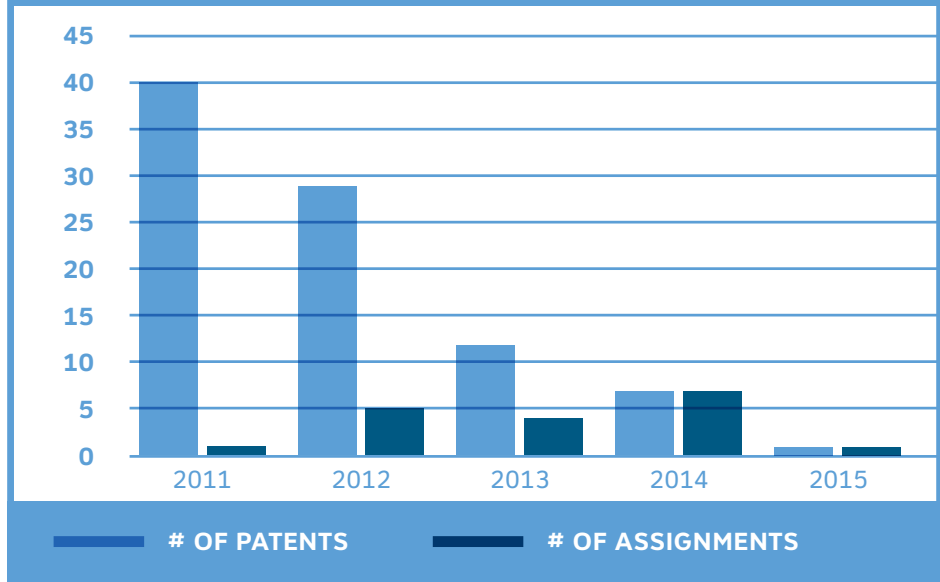
10 France Brevets aims to generate a return of 8%. See: Journal Officiel de La Republique Francaise. 2010. "Conclusion Des Etats Generaux de L'Industrie: Jeudi 4 Mars 2010." Dossier De Presse.

11 France Brevets. Overview. <http://www.francebrevets.com/en>

12 France Brevets. How We Work. <http://www.francebrevets.com/en/how-we-work>

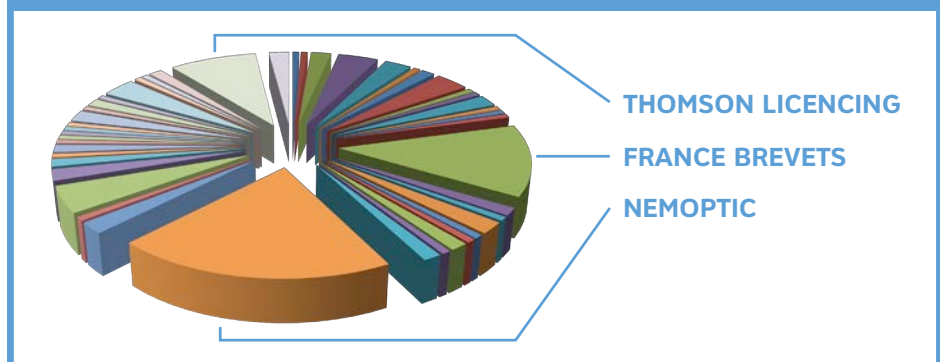


FIGURE 9 : France Brevets US Patent Assignments



Of France Brevets' total patent portfolio (both within and outside the US), the largest share (20%) was originally assigned to Nemoptic, a French e-paper/LCD company that went bankrupt around the same time that the state-backed fund was created. France Brevets is also the original assignee on a significant share (13%) of the patents in its portfolio.

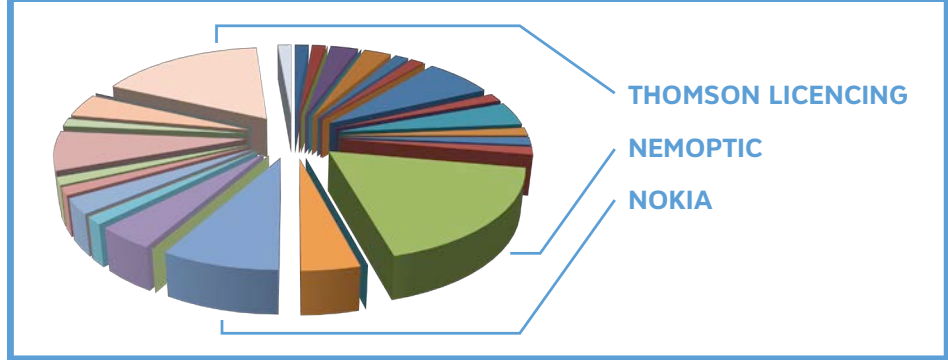
FIGURE 10: France Brevets Previous Patent Assignees – All Patents



Nemoptic also comprises the largest share of the fund's US patent portfolio, followed by Thomson Licensing and Nokia.



FIGURE 11: France Brevets Previous Patent Assignees – US



Breaking down patents by technology area, France Brevets is heavily focused on the broad categories of physics and electricity. Within these technology areas the fund is specialized in the areas of electric communication techniques, optics, computing; calculating; counting and education; cryptography; display; advertising; seals. These assignments would seem to confirm the focus of France Brevets on the technology sector broadly, and on mobile communications in particular.

FIGURE 12A: France Brevets Assigned Patents by IPC Classification

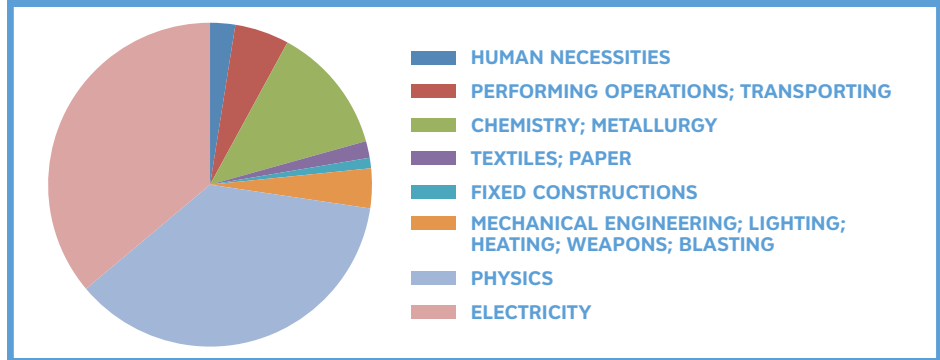


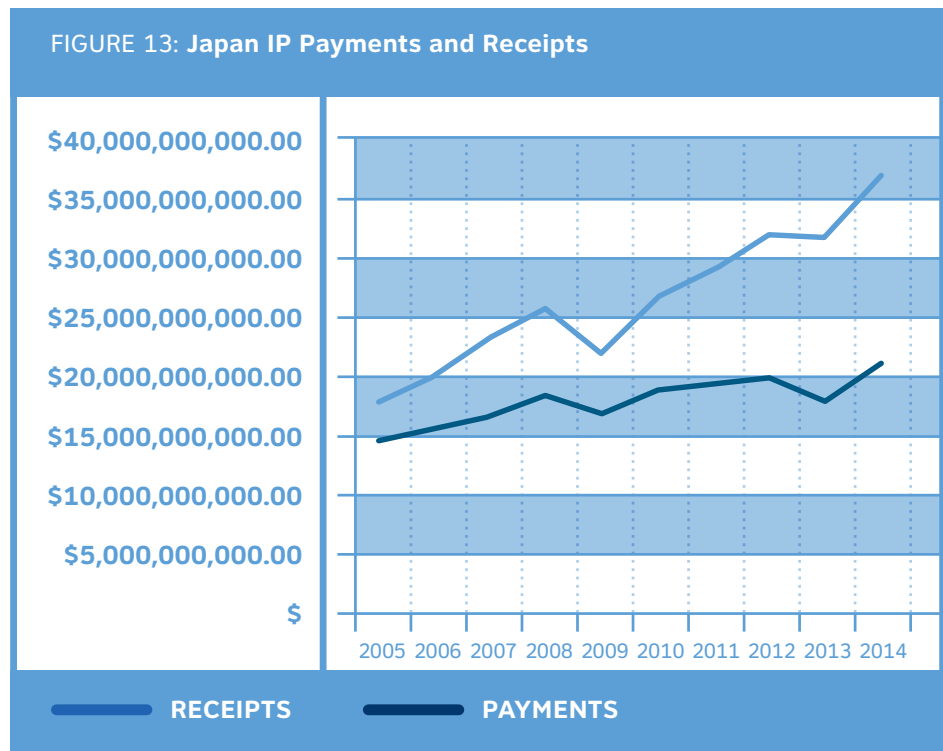
FIGURE 12B: TOP IPC CLASSIFICATIONS

PHYSICS AND ELECTRICITY	% OF TOTAL
Optics	16%
Computing; Calculating; Counting	9%
Education; Cryptography; Display; Advertising; Seals	6%
Electric Communication Technique	34%



IP Bridge

Following its meteoric rise in the 1970s and 1980s, Japan's high technology prowess has been dampened to some extent by low levels of economic growth and the rise of regional competitors such as South Korea and China. Nevertheless, the country's economy remains the third largest in the world and boasts considerable strength in the electronics and automotive sectors. Moreover while the country's high tech champions have experienced a variety of challenges in recent years, large Japanese corporations remain a dominant force in global IP, with Panasonic, Canon, Toyota, Toshiba, Seiko, Ricoh, and Sony all ranked among the top ten patent applicants globally from 2003-2012.¹³ Perhaps unsurprisingly then, the country also maintains a relatively robust and growing trade surplus in IP.



Despite this strength, Japan continues to experience challenges in obtaining full value for the country's knowledge resources. Traditionally, Japanese companies have viewed patents as defensive instruments primarily intended to provide protection to products. As a result, the country's firms have proved hesitant to monetize their large IP portfolios through licensing.¹⁴ In this context, Japan established IP Bridge in 2013 in an effort to overcome these barriers and help provide continued support for research and development. Capitalized principally by investments from the Innovation Network Corporation of Japan – a public-private partnership – the fund

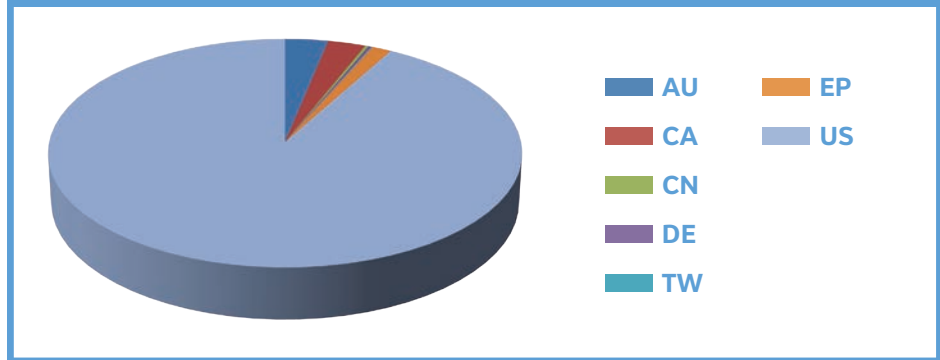
¹³ World Intellectual Property Organization. 2015. World Intellectual Property Indicators.

¹⁴ Ellis, Jack. 2015. Japan's Uneasy Relationship with Patent Monetization. IAM Magazine. <http://www.iam-media.com/magazine/is-sue/71/Cover-story/Japans-uneasy-relationship-with-patent-monetisation>



was established with an initial one time investment of US \$300 million. The funds stated goals focus heavily on themes related to access and open innovation. IP Bridge’s mission statement, for example, is to “promote the open innovation model by the optimal utilization of patents for achieving a healthy and creative world economy” as well as “to contribute towards a future where people’s imaginations can be actualized.”¹⁵ In service of these objectives, IP Bridge is registered as an assignee on a total of 1238 patents, with fully 92% of those assets assigned in the United States. Interestingly and perhaps surprisingly, IP Bridge does not appear to hold any Japanese patents.

FIGURE 14: IP Bridge Assigned Patents by Country Office



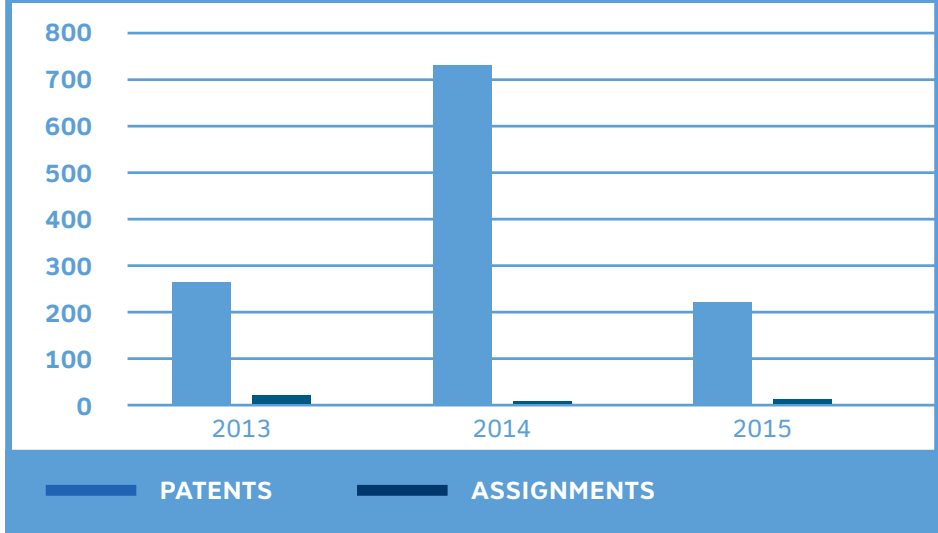
IP Bridge’s US patents have been assigned via a relatively small number of large transactions. In its first year of operation, for example, the organization became the assignee on a series of patents previously held by Sanyo and Panasonic, with one transfer with the latter firm including 226 patents. In a similar large move in 2014, 522 US patents from Panasonic were assigned to IP Bridge. For these firms, assigning patents to IP Bridge provides an avenue to realize the value of unused or dormant patents in their portfolio without incurring associated risks and costs of licensing or litigating.¹⁶

¹⁵ IP Bridge. Corporate Profile. <http://ipbridge.co.jp/en/company>

¹⁶ IP Bridge generally transfers at least 50% of licensing fees back to the original patent assignee. See: “IP Bridge is Helping Japan Join a Thriving Open Innovation Society.” https://www.jetro.go.jp/en/mjcompany/ip_bridge.html

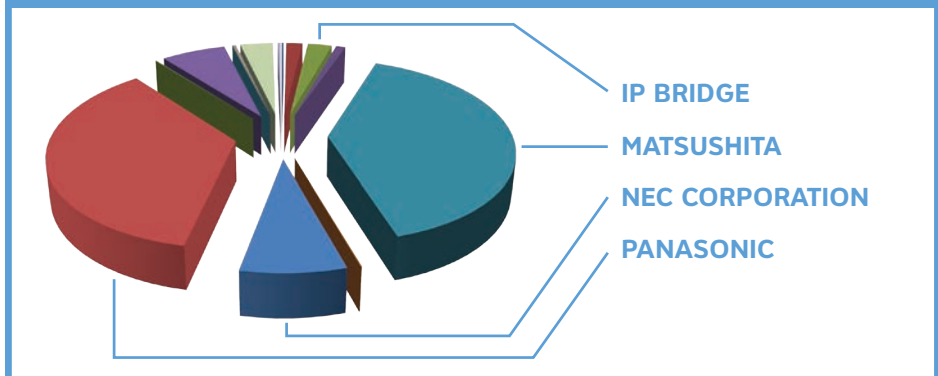


FIGURE 15 : IP Bridge US Patent Assignments



Overall, IP Bridge’s portfolio has been acquired from a small handful of Japanese firms. 76% of the fund’s assigned portfolio comes from Panasonic under the company’s current title and original name (Matsushita Electrical Industrial Corporation). Many of the related non-US patents continue to be assigned to Panasonic, including those in Japan. An additional 7% of the portfolio was originally granted to Sanyo, which was acquired by Panasonic in 2009. IP Bridge itself is the original assignee on only a small share (3%) of the patents held in its portfolio. Moreover, unlike both Intellectual Discovery and France Brevets, IP Bridge has not acquired patents originally assigned to individuals.

FIGURE 16: IP Bridge, Previous Patent Assignees





As with other SPFs, IP Bridge is particularly focused on the IPC categories of ‘physics’ and ‘electricity’. In addition – and with particular similarities to Intellectual Discovery – breaking down IP Bridge’s assigned patents by subcategory subsequently reveals a strong focus in the area of computing, calculating and counting, basic electronic elements, and electric communications technologies.

FIGURE 17A: IP Bridge Assigned Patents by IPC Classification

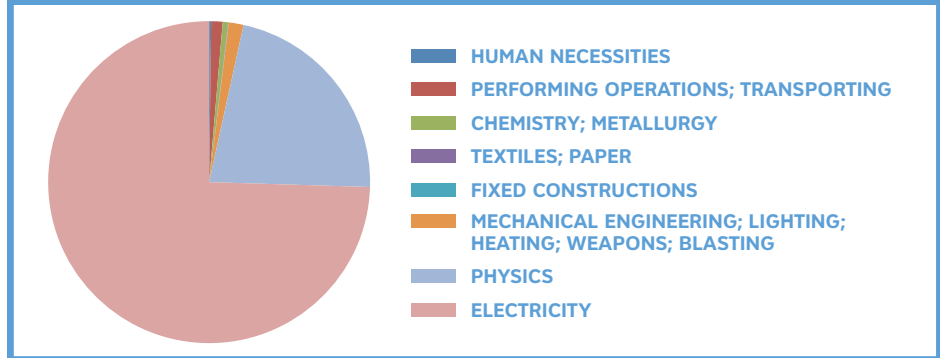


FIGURE 17B: TOP IPC CLASSIFICATIONS

PHYSICS AND ELECTRICITY	% OF TOTAL
Computing; Calculating; Counting	10%
Basic Electric Elements	25%
Electric Communication Technique	45%

Patent Monetization

All the funds examined here have sought to monetize the patents in their portfolios. In general, these funds have publicly emphasized a “licensing-first” approach to realizing value from their IP assets. Patent monetization of this type typically encompasses a process of negotiating and settling licensing terms. If licensing fails, litigation may occur as a final attempt to enforce the holder’s patent rights. While relatively few attempts at patent licensing ultimately result in litigation, data on successful negotiations is not publicly available. As a result, insight into patent monetization strategies stems largely from instances of unsuccessful licensing negotiations that have proceeded to litigation. A number of these cases are outlined below.



Those who view SPFs as “sovereign patent trolls” would likely expect these funds to engage in a significant amount of offensive litigation. Indeed, while the definition of a “troll” itself is loose and ambiguous, it hinges on the adoption of a business model based on the acquisition of a large number of potentially low-quality patents and the realization of their value through broadly distributed threats of litigation typically with low offers to settle. Thus, identifying a patent troll is less about what an organization is than about how it behaves, and even established companies have the potential to engage in troll-like behaviour. Typically, patent trolls seek to extract settlement rents by initiating contact with a large number of operating companies that may or may not be infringing patents held within the organization’s portfolio. In contrast, other types of patent intermediaries seek to build value in their portfolios largely through licensing or investment.

Existing SPFs have engaged in limited but growing litigation activity. Publicly known cases of SPFs engaging directly in legal action are listed below. More difficult to determine is the number of cases in which these funds have engaged in litigation through the use of special purpose vehicles or affiliates, though some of these can be determined by the assignment of patents from the fund itself to other organizations. Still more difficult is identifying the number of instances in which SPFs have used the threat of litigation to extract rents from third parties. Indeed, most matters are settled prior to litigation, suggesting that there are many deals which are not available publicly. The data listed here is thus likely to be incomplete. Nevertheless, it provides an important snapshot of the attempts made by SPFs to realize value from the assets in their portfolios.

France Brevets was the earliest litigant of the three funds examined here. In 2013, the SPF launched suits against LG Electronics (Korea), HTC (Taiwan) in both Germany and – through its affiliated entity NFC Technology LLC – in the Eastern District Court Texas, considered a plaintiff friendly jurisdiction. Acting in conjunction with the French firm Inside Secure, France Brevets alleged that the South Korean and Taiwanese technology companies had infringed a series of patents in the area of near field communications (NFC). While action against LG was concluded in 2014 with the signing of a licensing agreement, the suit against HTC proceeded in Germany until its conclusion in 2015 with a ruling in favour of France Brevets. According to a France Brevets press release issued in early 2016, subsequent to the ruling the fund “continues to enforce the cease & desist order against the HTC smart phone products (including HTC One M8s and HTC One M9) held to infringe the NFC patent in question” in Germany.¹⁷

In addition, NFC Technology LLC filed suit against Samsung Electronics in February 2015, also in the Eastern District Court of Texas. The three patents in question, which were transferred from the firm Inside Secure to France Brevets, and subsequently to NFC Technology LLC, could be considered standard essential patents and therefore

¹⁷ Court Decision on Validity Against HTC in Germany in NFC Patent Disputes with France Brevets. http://www.francebrevets.com/sites/default/files/RELEASE_JAN%2022%202016_FRANCE_BREVETS.pdf



subject to so-called FRAND licensing terms.¹⁸ In this context, officials from France Brevets appear to have engaged in comprehensive negotiations with Samsung engineers in an attempt to reach an agreement prior to litigation. As of February 2016, claims on two of the three disputed patents had been invalidated by the Patent Trial and Appeal Board of the US Patent and Trademark Office. Other actions undertaken by France Brevets are evident from the fund's portfolio of assigned patents. For example, the SPF is currently a joint assignee on two European patents with a retired French physiotherapist who, in 2013, claimed that Japanese electronics firm Nintendo had infringed her patent in the creation of the "Wii Fit" balance board.¹⁹

FRANCE BREVETS LITIGATION OVERVIEW

France Brevets vs. LG & HTC (Germany, 2013)

NFC Technology LLC vs. LG & HTC (Eastern District Court of Texas, 2013)

NFC Technology LLC vs. Samsung (Eastern District Court of Texas, 2015)

IP Bridge launched its first legal action in July 2015 against TCL, a Chinese company. The Japanese fund initiated action against TCL to enforce three standard essential patents originally assigned to Panasonic after the Chinese communications company failed to respond to a series of letters from IP Bridge. IP Bridge's communications in this case expressed the fund's desire to licence in accordance with FRAND conditions. The case is currently before the courts. In February 2016, IP Bridge launched its section action, this time in the Eastern District Court of Texas, against Broadcom, Avago, and LSI.

IP BRIDGE LITIGATION OVERVIEW

Godo Kaisha IP Bridge vs. TCL (2015, Delaware)

Godo Kaisha IP Bridge vs. Broadcom, Avago and LSI (2016, Eastern District Court of Texas)

Finally, Intellectual Discovery appears to have recently initiated legal action through an associated entity, Game and Technology Co, though the connection between the two entities remains somewhat unclear.²⁰ The latter group initiated four separate legal actions in summer 2015 against Blizzard Entertainment, Riot Games, Valve Corporation and Wargaming.net. In each case, the action was initiated on the basis of patents assigned to Game and Technology Co. from Intellectual Discovery and originally patented by South Korean inventors. The cases were combined in January 2016 at the request of Game and Technology Co.

¹⁸ FRAND (fair, reasonable, and non-discriminatory) licensing terms generally tend to apply to standard essential patents.

¹⁹ See: "Physio Sues Nintendo for €20m Over Wii Fit" The Local.fr, <http://www.thelocal.fr/20130829/nintendo-stole-my-baby-and-i-want-20-million>

²⁰ Ellis, Jack. 2015. Patents Linked to South Korea's Intellectual Discovery Assert in Eastern Texas Litigation. IAM Magazine. <http://www.iam-media.com/Blog/Detail.aspx?q=e5c2b3e8-3c40-4d9d-836d-6becd30ff516>



INTELLECTUAL DISCOVERY LITIGATION OVERVIEW

Game and Technology Co. Ltd. vs. Blizzard Entertainment Inc.
(2015, Eastern District Court of Texas)

Game and Technology Co. Ltd. vs. Riot Games Inc.
(2015, Eastern District Court of Texas)

Game and Technology Co. Ltd. vs. Valve Corporation
(2015, Eastern District Court of Texas)

Game and Technology Co. Ltd. vs. Wargaming.net LLP.
(2015, Eastern District Court of Texas)

All three SPFs examined here are increasingly willing to litigate the patents in their portfolio. While Intellectual Discovery and IP Bridge were initially reluctant to seek legal redress in response to alleged infringement, their activity increased notably in 2015. Indeed, 2015 was the first year in which all three funds initiated claims. While the alleged infringing parties in these cases have been diverse, the US – and particularly the Eastern District Court of Texas – has been by far the frequent most legal venue. This selection is unsurprising in light of the plaintiff-friendly nature of the Eastern District, the concentration of SPF patent portfolios in US assets, and the high-perceived value of US patents more broadly. Finally, while the litigation of activity of these funds has increased over time, it does not appear to correspond with the mode of behaviour characteristic of patent trolls. While classic trolls generally seek to monetize their portfolios by leveraging a combination of nuisance costs and threat of litigation to extract a settlement, in most of the cases examined here SPF officials appear to have first sought to engage in good-faith licensing negotiations with alleged infringers prior to proceeding to litigation. While not conclusive, this suggests that the criticism of SPFs as ‘state-sponsored patent trolls’ is likely overstated.

Conclusion

SPFs across countries operate differently, and appear to pursue similar but distinct primary objectives. The activity of Japan’s IP Bridge suggests a concern about declining competitiveness of Japanese products and the potential diminution of Japan’s strong position in IP, coupled with the need to continue to provide financial inputs to support continued research and development activities. Efforts to acquire large number of patents through a small number of large transactions with large Japanese firms – principally Panasonic – point to the desire to prevent IP owned by Japanese companies from being acquired elsewhere, while also realizing value from ‘dormant’ patents unlikely to be monetized by large corporate assignees. More broadly, the Japanese fund’s emphasis on open innovation based on licensing highlights its efforts to shift prevailing attitudes in the country with respect to these types of monetization strategies.



In contrast, Intellectual Discovery's strong level of engagement with the Electronics Telecommunications Research Institute suggests an emphasis on the commercialization of publicly owned and generated IP. In this context, the group could be seen as operating as a university commercialization office writ large focusing on driving ex ante commercialization as opposed to ex post monetization, thereby contributing in a limited fashion to addressing the significant intellectual property trade deficit that continues to vex Korean policymakers. At the same time, Intellectual Discovery's recent legal action in the area of video game technology suggests they are also willing to actively monetize privately-generated IP originally sourced from South Korean residents, and their creation of a subscription-based defensive pool highlights ongoing litigation and freedom-to-operate concerns.

France Brevets has embraced a more selective approach which suggests a focus on engagement, partnership and service-oriented activities. The French fund's initial focus on IP bundling and market creation – emphasized in its founding documents – has been augmented by a move to assist small and medium size French companies in realizing the value of their IP assets. In addition, while France Brevets' has not pursued private investors, the fund's focus on sub-licensing rather than direct acquisition suggests a strong emphasis on partnership with domestic firms.

Across the cases, we see little evidence of troll-like behaviour by SPFs. While all three funds have engaged in some litigation – universally against foreign-owned entities – this activity remains limited. This is not to say, of course, that these funds may not grow more aggressive over time. Nor does it indicate conclusively that these funds are not engaging in troll-like behaviour through the use of unrecorded threats of litigation. But at present, these funds have pursued a cautious approach to litigation, perhaps as part of a strategy to avoid negative publicity as publicly funded bodies. Whether the desire to generate a greater return on investment drives more aggressive action in the future remains to be seen.

In addition, our findings provide little support to the potential use of SPFs as a tool of trade protectionism. Using SPFs as part of a trade protectionist strategy suggests a focus on acquiring domestic patents in the hopes of subsequently preventing or deterring the entry of foreign products or firms into the home market in order to protect domestic firms. The concentration of patent activity – at least among assigned assets – in the United States suggests that this strategy is not prevalent. France Brevets successful pursuit of an injunction against HTC in Germany remains the only case to-date in which injunctive relief has been awarded to an SPF. More broadly, the success of such a strategy is likely to be more effective in extracting revenue from alleged infringers than in blocking market entry either at home or abroad. As such, the granting of the injunction is likely best viewed as the next logical step in legal action – following attempts at technology licensing and litigation – rather than an instance of trade protectionism through the use of non-tariff barriers.



Taken together, two broad conclusions are warranted to inform policy makers in Canada and around the world. First, while SPFs may operate in broadly similar ways, they embrace different strategies in service of distinct national concerns and objectives. Second, while a number of the potential uses of SPFs appear prevalent, some appear less common. Thus while debate on the nature and – more importantly – effectiveness of these instruments will undoubtedly continue, it is important to move beyond rash characterizations of these funds as state-sponsored patent trolls and appreciate the breadth and diversity of their potential functions. Jurisdictions considering emulating the SPF model should thus be particularly attentive to matching means to ends, with an eye to constructing SPFs that are appropriately calibrated to achieve clear and measurable policy objectives.