

# THE TRILLION DOLLAR TIPPING POINT

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**EXPLOITING THE UNTAPPED VALUE IN PATENTS**

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## Foreword

**By: The Rt.Hon. Professor Sir Robin Jacob**

Way back in 1967 when I joined the Patent Bar, I discovered something extraordinary - patents were a sleeping giant. Here were legal rights to stop other people doing things, though no one seemed to be going to court to do that. True, there were lots of oppositions to grant in the Patent Office, but this didn't seem to matter much in the real commercial world.

The position then was much the same in the United States, where most courts routinely found patents invalid. As Justice Jackson said in *Jungersen v Ostby and Barton Co.* 335 U.S. 560, "the only patent that is valid is one which this Court has not been able to get its hands on". While this was a 1949 case, nothing had changed by the '60s.

It was just after I came to the Bar that things began to change. A new English Judge, Mr Justice Graham, was appointed and he was prepared to find patents both valid and infringed. At first this touched what later came to be called "big pharma" but, as time went on other fields of technology were affected too. Things started to wake up later in the United States, following the creation of the Court of Appeals for the Federal Circuit in 1982, since patents could realistically be found valid and infringed there too. In Germany too, the world of patents began to become more important.

By the mid-1990s the position in the United States had swung in favour of patents. Litigators had discovered the value in patent litigation of the 7th Amendment to the US Constitution, which offered the choice of jury trial in civil litigation. It was soon seen that juries were apt to find for a plaintiff patentees, awarding what almost everyone bar the Americans would call big, not to say grossly inflated, damages.

It was the toxic mix of four ingredients that propelled patent litigation in the US to the fore. These were US style discovery (both documentary and oral), lawyers on contingency fees (taking up to 40% of the damages), no loser-pays rule and, as an optional extra, trial in the town of Marshal in the Eastern District of Texas. Pro-patent courts and big damages for infringement made patents which covered things people wanted to do —and, even more, things which they had already been doing (for then there would be potential large damages) —far more valuable. Serious investors were prepared to buy patents, often in bulk, for the money they could extract from real and even arguable infringers. People began to see patents as assets in themselves, as opposed to mere protection for products and processes used by a patentee. This had both positive and negative effects. On the positive side, inventors who did not run businesses soon found a market to turn their inventions into money. On the negative side manufacturers found themselves exposed to lawsuits not merely by trade rivals, as in the past, but by what they saw as mere predators – they got the pejorative name "trolls" but are also called, euphemistically if unhelpfully (since every patent owner who sues for infringement asserts it) "patent assertion entities" or "PAEs".

In Europe the so-called PAE phenomenon has been much more muted, since no European country has the toxic mix or any element of it (in England there has been a no-win no-fee system for a bit, but this has much less impact than a share in big damages). The only feature of Europe which is or may be attractive to a PAE is the view taken by the judges of some countries that, if a patent is found to be valid and infringed, an injunction follows as of right, there being no element of discretion. In such a country an injunction may indeed be gold – disproportionately so if the invention is only a minor or even trivial part of the product sued upon.

So things are not exactly the same as when I came to the Bar. While the basics of patents remain the same, they are no longer a backwater but the subject of major public discussion. The patent system has many imperfections. Patent Offices necessarily grant a significant proportion of patents which, on the close scrutiny given in litigation, prove to be invalid, and the costs of that scrutiny are significant in time and money. Despite this, the system was and is a major driver for innovation.

No matter what some anti-patent economists may assert about innovation happening anyway, the hard truth is that most people will not invest in innovation, with all its risks and uncertainty, unless they are to receive protection for the results of successful research. You don't put money on a horse unless you can win at a good price if it comes in.

This leads to a further question: how do you raise money for innovation? How is the investor (whether by equity or loan) to know the value of that which he is putting his money into? He has to form a judgment of how commercially important the invention may be. That is often hard enough – many (indeed most) bright ideas turn out not to be successful in the market. Some are overtaken by other ideas; they may be unable to find their anticipated market; they may require more development costs and delays than were expected, and so on. And that is aside from whether the product or process is properly protected by IP, particularly patents. While banks and venture capitalists work hard to develop better methods for assessing risks associated with innovation, innovation finance will always be a risky business. That is why, if we want innovation, we must pay the winners well and not let false economics, which looks only to the present or the past, destroy the prospect of big winnings for those few new ideas which turn out to be a success.

This report is written on the basis that intellectual property rights, and particularly patents, are really valuable. And so they are, even if it is hard or impossible to be precise about value. The recognition of the value of IP is itself an incentive for those who may put money into innovation – and why this report, which emphasises the clear need for a means of recognising and visualising that value, will help encourage them to do so.

Sir Robin Jacob  
September 2014

## Introduction

This report addresses issues that have been with us for a long while now. These issues include intellectual property as an asset class, the protracted labour that has yet to give birth to a transparent and effective market place for trading in intellectual assets, the difficulties inherent in valuing, monetising and securitising those assets and the relationship between all these things and patent infringement litigation.

Two factors that are common to all of these issues are, first, the demand for information that enables businesses, banks and others to make sensible decisions, and secondly the need for that information to be made available at the time when it is most relevant, in a manner in which it can be readily appreciated, and from a reliable source that is open to all. It is the interplay of the known and the unknown - the long-standing problems and their potential for solution - that this report addresses.

The market for IP assets, like those assets themselves and the world into which they were created, is ever-changing. While this report is current at its point of publication, the issues it reviews are subject to legislative and judicial shifts, economic movements and the passage of time. However, the need to fulfil the demands for accessible and reliable information, presented in an intelligible manner, appears to be a constant theme in this ever-changing world. It is that constant which this report addresses, and on which AISTEMOS will continue to focus.

Readers of this report are warmly welcomed to share their comments, however critical, of the themes and observations it contains.

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## Executive Summary

Intellectual property rights (IPRs<sup>1</sup>) are the world's most under-exploited and undervalued intangible assets. This report highlights a series of trends, including both litigation and licensing, which when viewed in the round strongly affirm that the evolution of this largely misunderstood asset class has reached a critical moment.

This moment represents no mere turning point. Correctly interpreted, it reveals an opportunity to create a new and financial marketplace for intellectual property - a marketplace for asset trade valued at many trillions of dollars. When businesses and governments fail to recognise this opportunity or choose to ignore it, it will be lost to those who do not seize it.

Our concern is that, without more active participation from the entire business community, IPRs will remain the playthings of a few large intangible asset-rich corporations.

This report engages with IPRs as an asset class on six levels.

- ▶ Section 1 points to recent evidence of value in IPRs and seeks to explain some ways in which IPRs are monetised
- ▶ Section 2 examines lending on the strength of IPRs as a major path to unlocking their value
- ▶ Section 3 addresses the uncertainties of risk and the impact of litigation, as well as the potentially countervailing role of insurance
- ▶ Section 4 considers some creative solutions to the challenges faced by litigation risk and the uncertainties of pricing
- ▶ Section 5 places IPR asset management within the context of a corporate commercial strategy, it being a boardroom issue
- ▶ Section 6 considers how big data and analytics function so as to pinpoint problems and suggest their solution

Of these six sections, the first three may sound familiar, since they have sometimes been trumpeted by specific interest groups, generating headlines that have confused more than they have illuminated. This report seeks to put the record straight.

Following an account in Section 4 of some recent initiatives that have sought to mitigate deficiencies in the IP asset market, Section 5 comments on the nascent emergence of intellectual property as a board and senior executive imperative, probing into what is needed to accelerate this essential development.

The sixth and concluding section argues that a fundamental obstacle to the evolution of IP as an asset class is the lack of IP business intelligence - a reliable and trusted source of information about intellectual property. We have now reached the point at which almost unimaginably vast quantities of authoritative or reliable IP data can be aggregated and analysed and provided instantaneously to everyone. This is the view of AISTEMOS, which refers to this phenomenon as its big data solution to determining issues of IP risk and value.

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<sup>1</sup> The term “intellectual property rights” embraces patents, trademarks, copyrights and a number of other registered and unregistered rights in intangibles. In this review, the paradigm for IPRs is the patent right. However, much of its content is applicable, either directly or by analogy, to IPRs other than patents.

## Section 1: Monetisation and Evidence of Value

Evidence of value of IPRs, particularly when collectively transacted, is not hard to find. In recent years a number of highly publicised deals by big-name businesses have hit the headlines.

### Recent major patent transactions

- ▶ Nortel sold its patents for \$4.5 billion to Rockstar, a consortium comprising of Apple, EMC, Ericsson, Microsoft, RIM and Sony (July 2011)
- ▶ AOL sold and licensed a bundle of patents to Microsoft for \$1.1 billion (April 2012)
- ▶ Eastman Kodak sold its digital imaging patents for \$525 million to a consortium led by Intellectual Ventures and RPX (December 2012)
- ▶ MIPS sold its patents to a consortium managed by Allied Security Trust for \$350 million (December 2013)
- ▶ Google bought Motorola Mobility for \$12.5 billion in 2011, and then sold the business to Lenovo without the patents in June 2014 for \$2.91 billion.

The factor common to these mega-deals is monetisation: the process of turning assets into money. In the field of intellectual property, monetisation has in the past been typified as selling or licensing technology to others. But now it embraces a range of business models which have developed around the fact that IP is a mispriced asset, attracting those who spot the chance to arbitrage the asymmetry that exists between those who correctly appraise its value and those who either do not or cannot accurately assess it.

One reason why IPRs are so frequently undervalued is that even their owners fail to appreciate their potential for commercial exploitation. In the context of daily corporate life this is perfectly understandable: after a company has consumed considerable time, effort, cash and resources in creating an innovative product or process that is core to targeting its commercial objectives, it can be hard to detach oneself from the resulting IPRs in order to cast around for alternative targets in markets that may be distant and unfamiliar, or to look for income streams that are far removed from its normal activities. As Simon Pearson (Partner, Ernst & Young) observes:

*“IP is a vastly underexploited asset. Companies invest in R&D over years, then change direction or focus and it sits on a shelf when it could be utilised in a number of different ways: funding pension deficits, acquiring debt funding, parcelling up and looking at securitisation or just a plain sale”.*

It cannot be said that companies, as IPR owners, are entirely unaware of the untapped potential of their intangible assets. However, the constant and ongoing responsibilities of running a business generally push management towards dealing with detail rather than stepping back to look at the big picture, projecting their IPRs into other scenarios. Simon Pearson appreciates this, adding:

**“IP is a vastly underexploited asset”**

**Simon Pearson, EY**

*“In general it is fair to say that the vast majority of companies, around 90% I’d say and even the 10% who think they’re quite good at managing IP, admit there is still a lot they can do to exploit their IP; if there are ten things they could do, even the good ones are only doing two”.*

## Of price and publicity

Does the publicity that attends these multi-billion dollar, IP-driven deals actually assist the business community's understanding of IP and patents as an asset class? Says Philip David (General Counsel, ARM Ltd), this attention can be a hindrance too:

*“On the one hand, they help in the sense that they have brought the idea of IP as an asset firmly into the business consciousness. IP and patents cannot now be ignored as business priorities at the highest level. On the other hand, these transactions have not been representative of typical market deals. They have had little to do with the intrinsic value of the patents involved, and much more to do with leveraging freedom to operate to protect the acquiring firm’s fundamental business against the uncertainties around injunctions and damages awards”.*

**“IP and patents cannot  
now be ignored  
as business priorities  
at the highest level”**

From a corporate vantage point that lets him penetrate the superficialities that the big-number deals generate, Philip David draws a conclusion that many others are coming to share:

**Philip David, ARM**

*“Overall, and on balance, they have probably been unhelpful. Already, with the little hindsight we have, they bear the hallmarks of deals struck in a frothy market in which valuations were out of touch with reality – and the risk here is that they will do more to discredit IP as an asset class than they will to move it forwards”.*

## Creating an open market

Trade in any asset works best where there exists an open market, where assets can be clearly identified and appraised by anyone who wants to trade in them.

At present there are three types of market in which IPRs are traded: those mediated by auctions, brokers and exchanges.

### **Auctions**

In principle an IP auction is no different from any other type of auction: sellers offer their patents or other IPRs, the market price is then determined by competitive bidding. The first dedicated IP auctions were held by Ocean Tomo in 2006, the company selling its IP auction business to ICAP in 2009. There are several reasons why IP auctions have had only limited success: the relatively short duration and uncertain validity of patents, the assumption that bidders would be seeking to buy IP in order to protect and develop existing businesses rather than as investment prospects and the difficulties faced by prospective bidders in identifying the worth of target purchases.

### **Brokers**

A number of small businesses provide bespoke and carefully managed services in matching up sellers of IPR with prospective purchasers. As in the case of auctions, sales are most frequently targeted at businesses with a commercial interest in working the IPR since they are easier to identify: they may be typically competitors of the IPR seller, current or former licensees or businesses working in complementary fields of technology. While brokers provide a valuable facility help to fulfil a seller's needs, particularly following events such as bankruptcy or the disposal of no-longer useful assets following due diligence or corporate restructuring exercise, they do not of themselves constitute a market in which IPRs are freely traded.

### **IP exchanges**

While auctions and brokers both focus on outright sale of IPRs to a single purchaser, the IP exchange addresses the fact that IP can also be profitably licensed to many users at the same time. A leading

exponent of the IP exchange concept is Intellectual Property Exchange International (IPXI), which has developed a scheme not merely for businesses to obtain licenses but also to trade in them in an efficient and transparent manner.

## Demystifying monetisation

Monetisation is a label in search of demystification. For one thing, it is about releasing the monetary value that is inherent in an asset, not about creating that value. The value of an IP asset lies both in the commercial or industrial application of its subject matter and in the extent to which competitors in commercialising it can be restrained, obstructed or rationed in their access to the markets which that IP covers. As Philip David explains:

*“In many ways, the monetisation of IP is not about creating new value. It is about eliminating transactional inefficiency and realising and reapportioning value that is already there, by establishing highly liquid, rational markets in which greater transparency of patent data ensures that transactions are shaped by the intrinsic worth of IP assets”.*

# 10,000

**Patent transactions  
in the last five years**

An estimated 10,000-plus transactions involving the sale and purchase of patents have taken place in the last five years. While the increased number of market participants has increased IP liquidity, the market has developed in ways that no one predicted. One such development has been the stigmatisation of the non-manufacturing investor in intangible IP assets as a “patent troll”. The role of the non-manufacturing investor in the ecosystem of funded innovation, which has often been seriously misunderstood, is discussed later in this review.

## Section 2: Lending, the Lifeblood of the Economy

It is universally recognised that small and medium-sized enterprises (SMEs) make a substantial contribution to most national economies; the UK is no exception. A fundamental requirement for economic growth is the ability of these companies to secure access to sources of finance, yet they struggle to achieve this. Why?

*Banking on IP?* is an independent report commissioned by the UK Intellectual Property Office on why banks will not lend against intangible assets. Published in 2013, this detailed research explains that SMEs are dealing with a banking sector that is still struggling to recover from a recession and which is facing loan requests with increasing frequency from companies that possess a profile that does not match their mainstream assessment criteria. More seriously, states the report, despite their pressing need for funds, 93% of SMEs had never sought to place a value on their IPR, 84% believing them to be of no value at all.

When pressed to lend on the security of IP assets, the banking sector has been understandably cautious. Speaking from the lender's perspective, Scott Bell (Head of UK Investment Banking at Deutsche Bank) cites the absence of reliable data as key:

*“Without data about value and risk, ownership, strategy and information allowing us to make market comparisons, it is hard to see how a functional and active market can be developed; and while data is not the only ingredient, transparency, visibility and understanding of the patent world has to be the starting point”.*

### Tradition and tangibles

Traditional lending is based on cash flows and the bank's ability to take security over fixed assets. However, in a world where 70% of an organisation's value is its intangible assets, the proposition is very different and pressure grows for a transformation of banking practices.

# 70%

**Percentage of  
corporate value made  
up of intangible assets**

Even though the real-world shift from tangibles to intangibles continues apace, there are many in the UK who believe that this necessary transformation will never happen. Recent developments in the United States suggest otherwise, where for example Fortress Investment Group, which established its IP Group in March 2013, has already closed a number of deals — all built around the same business model: lend to innovative, high growth companies in the technology, media and telecom sector, with debt secured on their patents.

The story of Fortress has yet to be replicated on a regular basis elsewhere. Why is this? Kelvin King (Managing Director, Valuation Consulting and co-author of 'Banking on IP?') is a long-time observer of the behaviour of lenders when faced with IP assets. A committed enthusiast when it comes to the promotion of IP valuation, monetisation and securitisation, he is under no illusions as to the current lie of the land:

*“To be blunt, valuing IP is not even on the financial sector's radar, let alone, if acknowledged, being carried out with any degree of competence — for example including IP SWOT analytics. I say that advisedly because it is important to understand that IP is an asset class that represents 70-80% of corporate worth. They simply are not educated and are not educating themselves to, by and large, look beyond fixed assets such as real estate, plant and machinery. What is interesting is they will look at cash flow, but do not ask the question 'what assets are driving that cash flow, what are they, how are they being protected, what are the risks and hence what is their valuation to support security and monetisation?’”*

Many IP assets can however generate cash flow from beyond the pocket of the borrower. When licensed to others, they may harvest royalty income from other players in the borrower's market or beyond. This ability to attract and sustain cash flow even from the borrower's competitors is something that IP assets are more likely to achieve than fixed assets such as real estate, plant and machinery.

## “To be blunt, valuing IP is not even on the financial sector's radar”

**Kelvin King**  
**Valuation Consulting Co**

the principle of lending on the strength of a secured asset is that, if the money is not repaid, the lender can dispose of the asset and recoup its loss. The amount advanced is usually considerably less than the estimated value of the magnitude of the loan to eliminate the risk that the realisation value of the secured asset will be less than that of the debt. In the case of IP assets, the lender may incur extensive cost in the process of disposing of the secured asset, the value of which may in any event be rapidly depreciating as the length of the unexpired term of patent protection shrinks or where the validity of the right must be defended in litigation before its sell-on value can be attained. Kelvin King recognises this fear:

*“Crucially lenders want to know what happens if it all goes wrong. Risk assessment, as part of the valuation process, asks questions such as: is the market so crowded one could never get a toehold? Conversely is it so quiet that it is not an active market with any potential buyers for my IP, should a distress situation arise?”*

## The lender: a seller too?

Curiously, little is written on a further dimension to the caution experienced by lenders, even when they are confident that the borrower will repay the money advanced: what do they do if the borrower defaults? However remote the expectation that the borrower will fail,

## Section 3: Risk, Litigation and Insurance

The incidence of IP litigation has grown exponentially over the last five years, but not all litigation is the same: it is necessary to understand the difference between litigation involving a non-practising entity (NPE) and that which takes place between businesses that make, use or sell IP-protected products and processes.

A non-practising entity (NPE) is an enterprise that typically conducts no substantive trading operations of its own but derives its primary revenue from licensing its patents to those who wish to use them and by suing for patent infringement those who wish to use them without payment. In some cases the NPE purchases patents outright; or it may acquire them on the basis that it will share a proportion of the proceeds with the business from which it purchased them.

### Litigation involving NPEs

Since NPEs do not in general create their own patents but purchase them from others, they work on the assumption that those patents have an ascertainable value which is realised through licensing and, where that is not forthcoming, through patent infringement litigation. If a patent is valuable to the NPE that buys it, it should logically be valuable to the seller too. So why do businesses sell their patents to NPEs? Russell Binns (Chief Executive Officer, Allied Security Trust) explains the reality:

*“There are a number of reasons why companies are selling to NPEs. It might be naivety, it might be that they need the money; they may see it as the quickest and easiest way to gain money or they might simply get a call from a NPE and not consider the alternatives”.*

In a free market there is nothing to stop the sale of patents to NPEs, and nothing to stop NPEs buying them either, even though this activity is as much the product of necessity or speculation as anything else. Russell Binns observes:

*“Patent owners are advised by an unregulated industry, so the question is: how do we get inventors and practising entities to know who has the right story and to get them to a level of education and sophistication that it takes to succeed? It’s a very complicated and confusing space at the moment”.*

Once NPEs acquire their patents, they make haste to press home their income-generating potential for the limited period before their expiry, particularly in the United States where litigation by NPEs is running at high levels not yet experienced elsewhere: in 2013, 63% of new US patent infringement litigation was initiated by NPEs, this being the fourth year in succession in which actions by NPEs have topped the 50% mark.

### NPEs and name-calling

On account of what is perceived as their aggressive and often unjustified conduct, NPEs are sometimes referred to by a variety of other names, including PAEs (“patent assertion entities”) and, generally pejoratively, as “patent trolls”. Looking beyond the unhelpful irrelevances of naming conventions, one can see in the activities of the NPE the essence of a marketplace for the acquisition and monetisation of IP assets, not to mention objective evidence of the recognition of their significant value.

Marvin Key (Chief Executive Officer, Acacia Research Group LLC) presents the case for the NPE in highly positive terms:

*“We represent the unrepresented, what we call the patent disenfranchised, generally against large companies who are using the owner’s technology illegally and have the resources to do so; smaller patent owners have no ability whatsoever to monetize or defend their patents in an efficient manner”.*

The expense and uncertain outcome of patent litigation, the principle that the loser pays some or all of the winner's costs, disruption to normal business activities and, on a personal level, the emotional stress experienced by those involved in patent litigation are variables which can differ considerably from country to country. However, it is generally accepted that the United States provides a hostile terrain for small businesses with IPRs who contemplate a court battle against large, resourced businesses. This in turn may encourage actual or prospective infringers to take the risk of using a patent without license and calling the IP owner's bluff. Says Marvin Key:

*"We have many clients who had written scores of letters and spoken to attorneys to try and speak to alleged infringers and got nowhere - they were completely ignored. It appears to be a conscious business decision on the part of infringers that ninety nine times out of one hundred they are going to be stronger than the inventor".*

By taking unlicensed users to court his own company, he adds, has so far returned an impressive \$639 million to patent owners which they would not otherwise have seen.

## OpCo litigation

Litigation between operating companies (OpCos) is more familiar to many people than that which is launched by NPEs, since it pits a business that exploits its own patents against a competitor that either denies the validity of its patents or maintains that it has innovated around them. However, with businesses extending the international reach of their patent protection, OpCo litigation is now fought on a scale scarcely ever seen ten years ago. This new species of OpCo litigation is best understood by reference to the highly publicised smartphone and tablet wars, in which all major market participants appear to be locked in litigation against each other, the most frenzied of this phenomenon being the ongoing litigation between Apple and Samsung.

The rationale for OpCo litigation, protection of innovation and market share, is better understood, and far less criticised than NPE litigation which is generally regarded as a drain on society. Intellectually and commercially this conclusion is, at best, an unhelpful simplification and, at worst, an unfounded and misleading generalisation that fails to appreciate the important role of NPEs in promoting IP as an asset class.

## Courting value

At the outset of this report, we observed that IP is a trillion dollar asset class: as far back as 2010 US Commerce Secretary Carlos Gutierrez placed its value to the US economy alone at nearly \$5.5 trillion, accounting for 40% of the domestic economy. Europe is only a short way behind: according to the joint European Patent Office and Office for Harmonisation in the Internal Market report, published in 2013, IP-led businesses contributed some 39% of the European Union's total economic activity, annually worth €4.7 trillion.

The problem is that, despite the colossal value of this asset class, there is no liquidity or efficient market for trading individual items of IP or portfolios of IPRs. Without an efficient and transparent market, IP pricing in most transactions is based on little more than educated guesswork since, even where there is some information to suggest an asset value, it is usually distributed asymmetrically between the parties concerned.

In terms of pinning numbers to assets, the courts sometimes provide guidance through awards of infringement damages, accounts of profits or breach of licence (or more often through the basis on which those awards are to be made). But court awards outside the United States are relatively infrequent, relatively ungenerous and hard to apply by analogy from one technology sector to another.

# €1.8 trillion

**Contribution to EU's total economic activity by IP-led businesses**

## Do courts really know better?

There is a corollary to the fact that litigating an IP right is the only objectively verifiable method of extracting evidence of its value: for as long as pricing is left to the court system, litigation will remain the legal construct for pricing. There is a tremendous irony in this: the judges (or, in the unique case of the US, juries) who fix the value of an IPR have normally no greater skill or knowledge than anyone else in doing so. Judges may benefit from the guidance of expert evidence, offered by opposing parties and highly contradictory, but neither their legal training nor their experience qualifies them to establish asset value. Retired patent judge Sir Robin Jacob, a leading and internationally respected spokesman for judicial practice, acknowledges that IPR is an asset class, *“even if it is hard or impossible to be precise about value”*.

## Insurance: from disengagement to dynamism

What is unusual about the risks inherent in IP, whether as a litigated outcome or in the non-contentious context of an acquisition, licence or securitisation, is that the insurance market has not really engaged. There are a number of reasons for this, most of these being historical.

Insurance markets typically only engage where there is a significant risk spread across a large population and which is broadly comparable in terms of its range of predictable outcomes, since it is this that allows for actuarial calculations on which the risk, and therefore the cost to the insured party, is based. In the case of IPRs these criteria have not been met until quite recently: even just five years ago only a relatively few companies in selected sectors were regularly parties to IP litigation. Under these conditions, few specialists within insurance markets have focused on this area, and those that do have struggled to rate IP risk in the absence of sufficient market data.

Market conditions may encourage insurers to take a less cautious approach, if only because their traditional business basis is itself changing. UKIPO Chief Economist Tony Clayton observes:

**“If you are an insurer  
and you only insure fixed  
assets, your market is  
shrinking”**

**Tony Clayton, UK IPO**

*“Some insurers are recognising that a few years ago 75% of British business investment was in fixed assets and 25% in ideas and IP, now the pattern is 60% in IP and 40% in fixed assets. If you believe Ocean Tomo, that figure is nearer 80% in IP. So if you are an insurer and you only insure fixed assets, your market is shrinking. That is why there is a view that if you want to be in the business long-term, you have to get with IP. The key to success for insurers is managing the risk in a sustainable way.”*

When might the insurance sector receive the benefit of that critical mass of information about IP rights, their value and their risks which will enable it to commoditise IP, offering more affordable and therefore attractive services? Erik Alsegard (Lead Underwriter, CFC Underwriting) does not envisage any changes taking place overnight, but contemplates a gradual, incremental improvement, led by better data and more competition among insurers:

*“I don’t see IP insurance becoming a commodity product in five years’ time, but there will be more insurers available to provide solutions, and there will be more sophisticated products. What we do not need is a marketplace filled with people who lack data and expertise, this will simply ruin the reputation [of IP insurance] at this critical stage”.*

So while insurance practice is set to change, insurance will follow business but may not be the IP asset game-changer.

## Section 4: Some Creative Solutions to the Challenges Faced by Litigation Risk and Uncertain Pricing

Where patent litigation is uncertain, the value of patents is hard to ascertain and their very existence may be subject to factors outside the control of their owners, all players in the patent ecosystem - businesses that own them, institutions that lend on the strength of them, potential licensees and defendants in infringement proceedings - have an interest in reaching solutions they can live with. This section describes the most important ones.

### Providing liquidity for willing sellers

Of particular interest are the activities of Intellectual Ventures (IV), founded by former Microsoft Chief Technology Officer Nathan Myhrvold in 2000. Since its formation, IV has raised over \$6 billion and acquired over 70,000 patent assets. The company's policy is to acquire patents only from willing sellers, many of whom are small-scale inventors who are delighted to have the opportunity to dispose of an asset which they cannot immediately exploit themselves in order to gain much-needed liquidity for future projects. The demand for liquidity in early-stage innovation cannot be underestimated; nor can the effect of its absence: a BTG report states that some 67% of US companies own IP that they fail to exploit. Solutions that put money into the hands of IP owners, like those that place IP in the hands of those with money, thus help combat IP stagnation.

Small-time innovators are not the only businesses to take advantage of IV's mode of operation. The company also purchases patents from major corporations, including those who paradoxically are among those heard to complain at the increased levels of licensing activity that the commercial exploitation of such sales to NPEs brings about.

### Defensive aggregation: shielding businesses at risk

There is universal acceptance of the fact that litigation is vastly inefficient, as Dan McCurdy (Senior Vice-President, RPX Corporation) reveals from his company's own cost study:

*"NPE patent disputes cost operating companies \$13 billion in 2013. Of that, nearly \$5 billion was for outside counsel expenses alone".*

So how can litigation be avoided, or at least reduced? One way is for a group of businesses which are vulnerable to patent litigation threats to buy up patents so that they can't be sued for infringing them: this is defensive aggregation, a technique epitomised by RPX. The philosophy of RPX, founded in 2008, is based on a commitment to transparency in sharing information about the cost of licenses and patent purchases, deactivating risk by settling disputes for the benefit of all its members by purchasing patents even when they are the subject of ongoing infringement litigation, then neutralising them by making a commitment not to sue on them.

### The consortium approach

After Nortel went into administration in 2009 and its operating activities were sold to Avaya for \$900 million, it was estimated that its patents, sold separately, would generate an additional \$500 million of value. In the event a group of potential buyers, including Microsoft, Apple, BlackBerry and Sony, formed a consortium - Rockstar - which bought those patents for \$4.5 billion. Rockstar can be seen as a case study in collaboration, not patent pricing, paving the way for consortium members to trade without the Nortel patent portfolio casting a shadow over their operations, and with the opportunity to license them if they so chose.

Since patents are hard to value, the best way for sellers to maximise value is to let the market decide their worth. The formation of consortia is attractive for buyers since it reduces the number of bidders and avoids the tension and conflict inherent in any "winner takes all" scenario.

The consortium approach was again invoked when Kodak reported that it was in financial trouble, since an obvious way to alleviate its position was to monetise its patents. The market speculated Nortel-like value ranges might be achievable. In the event, in 2013 the patents were sold to a consortium led by RPX Corp and Intellectual Ventures for \$525 million.

## Industry groupings

Industry has risen to the challenge of living with risk through a variety of initiatives, some of which have similarities to both defensive aggregators and the formation of consortia for specific deals.

### *Allied Security Trust*

Allied Security Trust, formed in 2007 as a consortium of major technology, media and telecoms companies, was intended to create a structure through which companies could participate in the acquisition of patents under a centralised administration. Their largest transaction, the acquisition of the MIPS portfolio in 2013 for \$350 million, enabled a number of companies to contribute to the acquisition costs in the knowledge that they would be licensed. This purchase was followed by an organised transfer of the assets.

### *Open Invention Network*

The Open Invention Network (OIN) was formed in 2005 by a group of companies (Sony, Novell, IBM, NEC, Philips and Sony). Its goal was to create a safe and secure ecosystem for Linux open source software, which represents serious competition to a range of proprietary software companies. The business model had two objectives. The first was to acquire a number of patents of interest to its members; the second was to enable its members (now numbering over 900) to license their patents to each other and to receive a licence of OIN patents. In doing so, OIN has created a safe harbour in which over 350,000 patents are cross-licensed for the benefit of the Linux ecosystem.

Most recently, a group of major corporates (including Canon, DropBox, Google, Red Hat and SAP) founded LOTNET — the LOT ("License on Transfer") Network. This works on the basis that all members are safe in the knowledge that if a fellow member's patents are sold to an NPE, this will automatically trigger a licence to all other members. As of July 2014 the LOT Network contained nearly 300,000 patent assets.

## New business models will continue to emerge

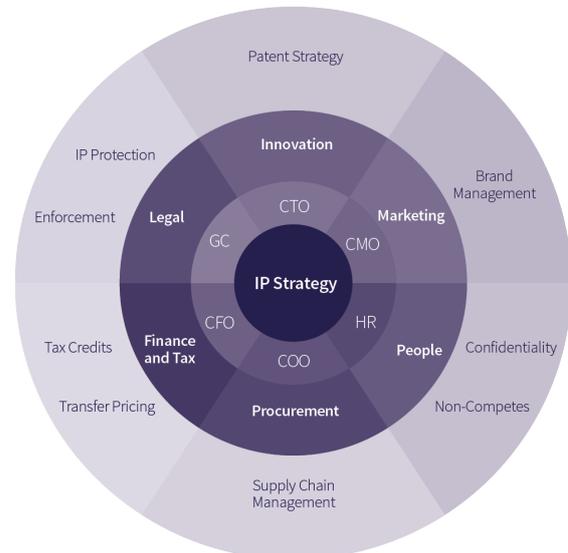
No one organisation or initiative referred to provides the solution, but together they represent a trend towards creating a market and rational pricing. The most recent entrant is Patent Properties, which has developed an entirely new business model — the United States Patent Utility. Despite the official-sounding name, this is an entirely private sector initiative (founded by Jay Walker, whose previous companies include PriceLine).

The basic idea is that the Patent Utility intermediates the licensing of the 100 most relevant patents to any organisation. The aim is to achieve low-cost, high-volume licensing e.g. if 50,000 SMEs (out of the US population of 5 million SMEs) took advantage of the Patent Utility at, say, \$12,000 a year, this would generate a potential \$600,000,000 (as of today) of untapped licensing revenue. While as yet unproven - the Patent Utility will be available later this year - the logic is sound; there is a vast quantity of patents which have value, but the marketplace is not sufficiently developed to enable this value to be realised.

## Section 5: IP Strategy

Until quite recently, intellectual property was the exclusive domain of specialists; even within large companies it fell within the responsibility of the legal department. Times are changing and, with them corporate IP strategy - but not fast enough, and still only in the larger companies. With two decades of experience in strategic business and technology market-making, the Delphi Group has estimated that 75% of businesses now identify intellectual capital management as a corporate strategy issue.

There is however a vast gulf that must still be bridged between identifying IP asset management as an issue and formulating a meaningful IP strategy that can be implemented and, where necessary, modified, as a business presses ahead to achieve its principal targets. The diagram to the right not only reflects the points of contact between corporate IP strategy and its other activities but also illustrates its centrality.



Every organization needs an IP Strategy that is defined, measured and governed. The value of IP can only be maximized and associated risk mitigated, if a holistic view is taken.

### More than a distraction

The importance of IP strategy should lie at the core of corporate policy right from a company's earliest days. There is a fundamental misconception that consideration of intellectual property is an expensive distraction from more vital corporate imperatives, but the business world is now awash with war stories that highlight just how prevalent IP is as a topic and how proactive engagement with IP strategy is infinitely better than reacting to adverse events. Typical and frequently-repeated misadventures include, but are by no means limited to, the following:

- ▶ A brand new product is just about to launch when its manufacturer is hit by an injunction alleging trade mark infringement
- ▶ Leading-edge research with wide-scale industrial application turns out not to be patentable after all, since its inventive content has already been published in a conference paper
- ▶ Valuable technical or commercial trade secrets are allowed to walk out of the door when key employees move on to other employment or leave to set up their own businesses
- ▶ The outsourced manufacturer of consumer goods floods the market with product over-runs
- ▶ The licensee of proprietary software makes improvements to it which it refuses to share with the business that licensed it

A corporate IP strategy should, at the very least, make contingencies for the loss or diminution of value of the company's own assets. But that is not all, for two reasons.

First, even a business that has no meaningful IP assets of its own is likely to be dependent on the IP it licenses from others. Operating software for manufacturing processes, user manuals, accounting and office software are among the types of IP that most businesses do not create for themselves but buy in from others. Here too there should be a degree of awareness. How many companies are content for an agency that creates its advertising campaigns or designs its website to retain full control of the IP in them?

Secondly, IP strategy is important as an adjunct to an issue to which companies are already highly sensitive: exposure to tax liability. Many businesses face transfer pricing issues when IPRs held in one country are licensed or assigned to a sister company in another jurisdiction or offshored to somewhere more tax-efficient; these are typically seen as tax matters that have little or nothing to do with IP strategy. Additionally, in common with many European countries, the UK has introduced an innovation-friendly Patent Box tax break. Adds Tony Clayton:

*“The Patent Box has certainly helped focus accountants’ minds on patents, if you’d asked most CFOs four years ago how many patents his company owned and their contribution to value, you would get a blank response – they certainly know now, and in that sense it has been incredibly useful”.*

This is good news, but exposure to tax liability is still no substitute for a serious, integrated approach to IP asset management.

## A strategy - but at what cost?

Jon Ellenthal (Vice Chairman and Chief Executive Officer, Patent Properties) agrees that every company needs a patent plan but draws attention to the question of cost. Even among those smaller companies that do recognise the need to cultivate an IP strategy, most cannot afford teams of patent lawyers that go into the market to acquire licences, or sophisticated analytics tools that give them a view of the landscape they operate in. Their basic plan, says Jon, is *‘hope for the best’*. He adds:

*“What’s needed is a simple and affordable option that addresses a company’s basic needs, can be put in place quickly, adapts to business changes and doesn’t require a lot of attention”.*

This sentiment is echoed by others. Philip David adds:

*“The lack of visibility and data around IP means it is currently very difficult to transact IP at a level that makes economic sense. For instance, it is practically impossible for most businesses to accurately reflect patent licensing costs in a bill of materials or in business plans.”*

**“The lack of visibility and data around IP means it is currently very difficult to transact IP at a level that makes economic sense”**

**Philip David, ARM**

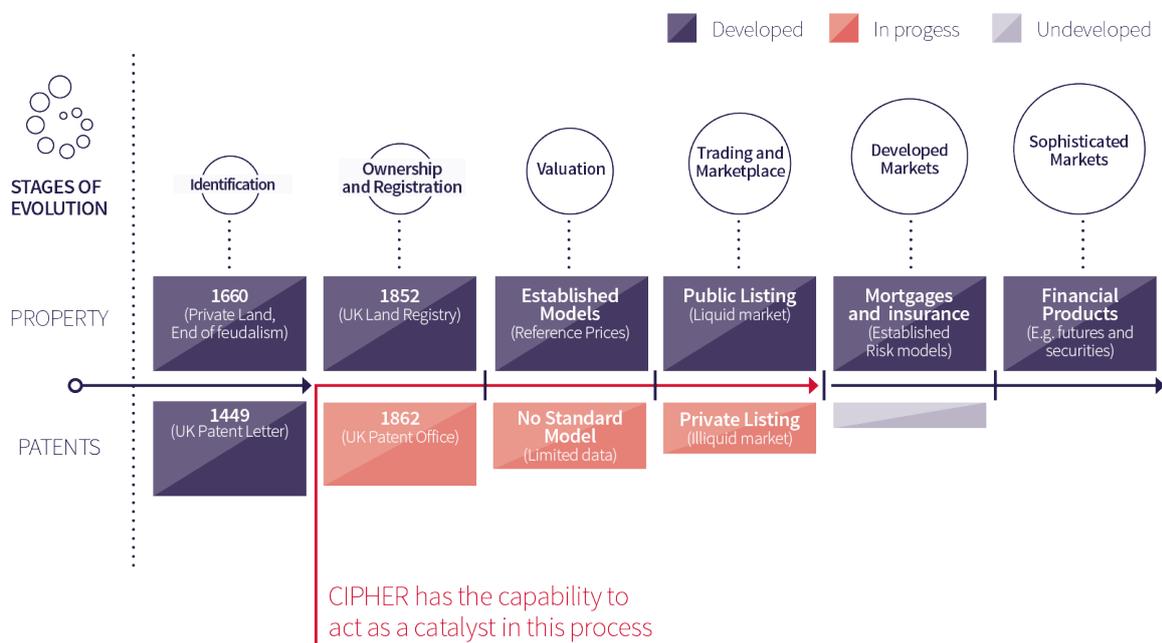
The need for a strategy to be low-cost at the point of creation and low-maintenance on an ongoing basis is a sensitive issue. The advice and guidance that businesses often pay handsomely for at an early stage of their operation are assets that remain static, while IP law, regulatory issues, market conditions, competition within their sector and between it and products in other sectors, and the availability of finance and insurance coverage are variables in respect of which ongoing decisions may be demanded, each decision requiring fresh advice or data.

## Section 6: Solutions, Big Data and Analytics

IP has evolved from a business novelty act into what is fast becoming a mature and well-established asset class. Now that IPRs are being monetised, used as security in financial transactions and litigated by NPEs, it is a natural progression for them to have become a strategic consideration at main board level. The ground for concern is that this golden opportunity to unlock a trillion dollar asset class may be negatively perceived as a risk that must be stamped out.

The solution lies in an understanding that IP’s evolution has reached a critical point. Despite the growing acceptance of IP as an asset class, its ecosystem is a fragile one in which its further growth may be blocked and its benefits allowed to atrophy.

As depicted in the graphic below, there is a path to follow if the IP asset class is to be nurtured through this key inflection point. It is clear that the wider business community is willing to engage with IP, but that same community harbours concerns and requirements that must be met.



The first of these concerns is that, where information about any IP asset is known (including relevant litigation and licensing events), it must be made available together with analytics and visualisations that put IP on a par with all other assets such as debt, equity and property. With this increased level of certainty and transparency, the number of market participants will grow and, with that, rational pricing will emerge.

### CIPHER: an IP catalyst

For the past year, a team from AISTEMOS has been working with a pilot group of over 60 companies, including major corporations, banks, accountants, law firms and patent attorneys in order to establish and then deliver on their requirements for IP business intelligence. This work has culminated in the release of CIPHER, the world’s first IP business intelligence tool to be designed exclusively by and for the wider business community.

CIPHER aggregates, analyses and visualises data relating to patents and related events, such as licensing and litigation. This solution is possible because of the significant level of data relating to intellectual property which is now available, mainly in digital form. This data includes curated datasets aggregated from the many patent offices across the globe, in the wake of the significant effort

that has now been directed towards the creation of centralised databases of information about IP litigation and IP transactions.

While the volume and quality of the raw data has risen and its organisation within databases has continued apace, the computing costs necessary to analyse this information have fallen dramatically. As AISTEMOS Chief Technical Officer Steve Harris recognises:

*“Machine learning algorithms would not have been an economic approach to understanding IP data until now. The computing power necessary would have been prohibitively expensive, and there was simply not enough accessible information to make a big data solution possible”.*

## Decisive data: time to spread the word

By way of an epilogue, even the best and most available information, duly aggregated, analysed and visualised, is of use only when businesses and lenders know it exists and understand what it can do and how it can help them. This is why the IP community should take the initiative in emphasising the importance of decisive data, both for the finance sector and wherever IP is litigated. This is in effect an exercise in education.

The first step in educating financiers about IPRs is for those who own it, and their professional advisers, to break free of the grip of professional and technical jargon and state in the clearest terms what it is they want, how and when they want it, what they want it for and what is the expected outcome if they get what they want. As a partner in a business consultancy that has experience of bridging the gap between IP owners and those who would fund them, Simon Pearson expresses the problem succinctly:

*“A big disconnect between IP owners and financiers is that IP is jargon-rich and financiers just want it in a relatively simple, digestible format - how important is this IP in this market and what proportion of that market does it affect therefore what numbers can we attach to it?”*

The ability to rise above the jargon is a necessary first step to facilitating communication between IP owners and the financial sector, it is by no means a sufficient one. This is because IP owners who speak with bankers and insurers must be taught to hear more than just the word “money”: they have to listen to, and understand, the choices that bankers and insurers are offering them, how much they cost (and why), and what concerns and anxieties are harboured by players in the financial sector.

The need for education in the relevant business sectors is hammered home by UK IPO Chief Economist Tony Clayton, who talks of *“educating businesses about the different types of finance available for different types of business model and IP intensity, along with raising the awareness of the banks about the value of IP in business plans so they don’t just ignore it”*. But more is needed. It is crucial, he says,

*“to develop the templates, which already exist in a number of intermediaries, for representing the value of IP in a business and standardising so that we can make more efficient what is, in effect, a cottage industry where every transaction is a one off”.*

While Tony Clayton has IP finance in mind, the same education is important for litigation too. As Dan McCurdy has noted, the resolution of IP disputes is becoming more fact-specific. Tools like CIPHER, in the hands of those who have to make the decisions that lead to the resolution of disputes, give shape to facts and, by doing so, reduce risk and maximise the chance of reaching realistic real-world solutions.

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