Use it or lose it: monetise patents while others still need them

IP assets can be among the most valuable resources that a company holds. However, as product lifecycles get faster, asset managers are beginning to do the once unthinkable – sell patents while they still command significant market value

By **Robert Aronoff**

Much attention has been devoted to generating the right patents internally through R&D. But what about operating companies that have accumulated more IP rights than they need for freedom to operate or can effectively leverage to support their business? For companies of all sizes, typically only a small portion of their IP holdings are actively monetised or leveraged for strategic value. The rest of the portfolio mostly languishes unproductive, a missed opportunity to generate additional revenue and working capital.

Rights holders are now attempting to discern when the value of a patent is at or near its highest point and starting to decline. Like smart owners of professional sports teams, who make their best players available to those who have more immediate needs and sufficient cash, more rights holders are now selling good intellectual property to generate immediate revenue or capital, or spinning out these rights for others to monetise and generate royalty streams over time.

When it comes to return on investment (ROI), businesses that do not use their patents intelligently can lose the value associated with them much faster than they believe. They need to make full use of their all-star rights before their market value declines to the point that it is no longer meaningful.

The next wave of IP monetisation: core rights

IP rights have become more central to business and investor discussions. From boardrooms to the mainstream media, intellectual property is now a focus of speculation and investment. IP monetisation strategy has come to mean turning IP rights into cash whenever possible, not just attempting out-licensing under the often significant operating and political constraints of an existing business. The need to monetise IP rights such as patents aggressively, converting them from intangible goodwill into income generators, has become a tactical strength and should not be seen as an operating weakness. Businesses that fail to fine tune their portfolio by monetising at least some of their best patents in a timely manner may find themselves potentially out-manoeuvered by the competition or confronted by dissident shareholders.

With dramatic increases in computing speed and data processing, and the miniaturisation of intelligent hardware and software that can embed into almost any design, product innovation lifecycles are speeding up. Phones, music, books, magazines, movies, cars, computers, televisions, shopping, advertising, medical devices, cleantech, games, appliances, lighting – Moore's Law has overtaken them all. The introduction of potentially market-shifting innovations is suddenly an annual event, not a once-in-a-decade occurrence. In this new marketplace, the pace of innovation and rapid market shifts can overtake leaders in just a few years. However, even under the pressure of such a blistering pace of innovation, the IP rights

that older companies own can give them life-saving value in the face of challenges from the new guard. This is the basis of the next generation of strategic IP transactions — outright sale or spin-out to royalty-generating vehicles, instead of sitting on excess intangible assets with no material benefit to shareholders and the company. Seen from the perspective of stakeholders such as CEOs and chief financial officers, converting off-balance sheets or 'hidden' assets enhances value, improves performance and provides liquidity, without necessarily compromising freedom to operate.

The challenge for rights holders is to sell or spin off even some of their best IP rights, retain others and get comfortable releasing even so-called 'crown-jewel' assets once they have lost only some of their value, but are still at or near their highest demand from the perspective of those whose strategic needs are greater. On the other side of the transaction, IP acquirers are learning from pharmaceutical industry patent strategy, and have discovered the logic (and ROI) of paying a premium for the best patents while they are still in their prime. By transacting good rights that were otherwise lying dormant, both seller and buyer benefit materially.

There are three reasons to monetise rights aggressively.

More is not necessarily better

Putting aside the rare successful out-licensing programme, the prevailing wisdom in the world of IP strategy has been that operating companies, especially in the IT sector, need to hold lots of patents to barter and cross-license with the competition. The concept of mutually assured destruction — a term borrowed from the nuclear arms race — had become the backbone of patent cross-licensing. Companies measured themselves against their competitors by the height of their patent stacks. They compared the raw number of patents and claims, discussed the jewels of each portfolio in more depth and then tried to reach agreement on who owed whom what in the balance of payments. More patents were almost always better, or appeared to be.

Portfolio size counts, patent quality counts more

It has been generally accepted that a business should hold strongly assertable patents in proportion to its market share in the different product categories in which it competes. If one company enjoys a 40 point market share in a given market and another company 20 points, then the larger player would seek to amass twice as much quality and assertable intellectual property as the smaller player; twice as many patents that strongly apply to the other in that marketplace.

Most IP managers also understand that this generally accepted principle can create a runaway train when not checked by practical reality. Say, for example, the smaller player's relevant IP portfolio grows every year at a rate of X and the market share ratio of the two companies stays constant at 2:1; then the larger player's portfolio must grow at a rate of 2X. Since patent portfolio growth happens as a natural byproduct of R&D investment, strict adherence to this philosophy almost inevitably fuels a never-ending R&D and patenting arms race between two or more companies.

The logical way out of this conundrum is to inject the hard market reality of patent litigation into the equation. In the end, it is the potential impact of costly and potentially ruinous patent litigation that ultimately determines the winner and loser in IP power-play strategic manoeuvering. When factoring the practical reality of how companies actually settle disputes as to who owes whom what — litigation — it turns out that most IT businesses do not need as many patents as they might think to prevail.

Consider the situation where company A enjoys revenues of US$10 billion per year in a key product line and company B, a direct competitor, enjoys only US$1 billion per year in that same product line. If company B holds 10 strong core patents that read on company A's US$10 billion product line, does company A really need 100 core strong patents — the number of patents that equate to its 10X revenue advantage — in order to counter company B? You need only enjoin its products once. Would company A holding perhaps 20, 30 or even 40 litigation-quality patents in reserve as a future threat be enough to accomplish its objectives?

When Apple sued Samsung in the United States for patent infringement, it represented an important strategic gamble to stop Samsung's current crop of smartphones at the US border, potentially disrupt Samsung's future product roadmap and erode consumer confidence in one of Apple's major competitors. With so much at stake, Apple still used only three utility patents and four design patents to go to war. As of the time of writing, just three claims (one from each of the utility patents) and three of the four design patents were found to be infringed, for a total award (pre-potential wilful damage enhancement, pre-injunction decision) of just over US$1 billion. Samsung initially

Patent monetisation 2.0

Embracing aggressive monetisation is the responsible strategy to keep intellectual property and cash flow competitive now and in the future.

- It involves seizing the opportunity to sell and/or spin off as much good intellectual property as possible before it loses most of its value to others in the marketplace.
  - Depending upon the industry and product, this typically is between the eighth and twelfth year of most patents' life.
- It requires an ongoing active commitment to reviewing and identifying patents that are no longer needed for direct leverage, counter-assertion or active out-licensing programmes.
  - The process needs only to move forward a fraction of the potential transactions to add meaningful value to the company.
- It converts patents from off-balance sheet (intangible assets) to on-balance sheet (cash and/or externally generated royalty streams) as soon as they are no longer strategic.

Product lifecycle by industry

Industry name	Rank	SIC code	T (years)	R&D intensity
Shortest product lifecycles				
Electronics machinery	1	383	6.73	.0527
Watches, clocks, clockwork operated devices	2	387	7.37	.0239
Computer and office equipment	3	357	8.38	.0987
Agricultural chemicals	4	287	8.69	.0219
Electronic components and accessories	5	367	8.83	.242
Intermediate-length product lifecycles				
Miscellaneous industrial and commercial	19	359	9.68	.026
Miscellaneous chemical products	20	289	9.73	.029
Surgical, medical, dental instruments and supplies	21	384	9.75	.058
Farm and garden machinery and equipment	22	352	9.78	.020
Household appliances	23	363	9.78	.012
Longest product lifestyles				
Fabricated structural metal products	33	344	10.25	.0102
Cutlery, handtools, and general hardware	34	342	10.41	.0137
Screw machine products, bolts, nuts, screws	35	345	10.42	.0240
Metal cans and shipping containers	36	341	10.63	.0119
Heating equipment, except electric	37	343	10.89	.00986

This table shows the product lifecycle length (the average patent citation lag) and R&D intensity (the ration of R&D to sales) for the top and bottom five industries ranked by product lifecycle lengths. Patent citation data is from the National Bureau of Economic Research US Patent Citations Data File (Hall, *et al* 2001). R&D intensity is the average ratio of R&D to sales by industry among multinationals on firm-level data from the Bureau of Economic Analysis.

counter-sued with only six patents of its own, and more recently in a suit filed on 2nd October, with just another eight patents. While both companies possess thousands of patents, they are fighting over one of the world's largest and most lucrative markets using only a handful of patent assets between them.

Market position is best protected by believable capability

A business needs only enough patents (and available resources, including cash) to give it believable capability to thwart the material objectives and ongoing concerns of projected challengers. Holding onto more than that is dropping the proverbial ball on the opportunity to convert excess intellectual property into value that can be used for many strategic purposes. This translates into having just enough patents to thwart competition in a key product or technology each once over, and no more; perhaps enough patents to thwart certain potential challengers twice over and more. Patents provide only negative value to an enterprise, as they require ongoing maintenance and leave unrealised value on the table.

Patents that appear valuable now may not be so in the future as product and technology battlegrounds shift or even change drastically. Thankfully, ongoing R&D and patenting activities, company acquisitions, in-licensing and strategic patent purchases can provide a constant flow of new strategically applicable intellectual property for a business to leverage in new markets.

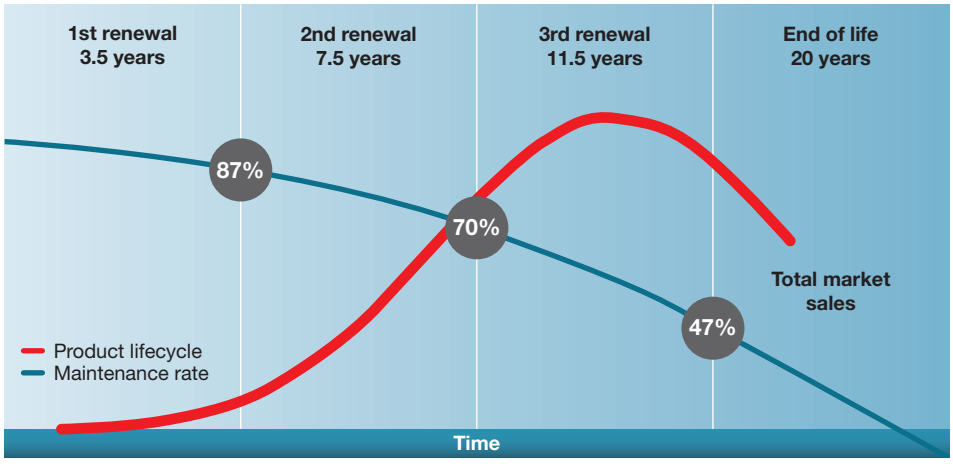
Rights that are highly strategic one day can be excessive and unproductive the next

For an IP strategy to deliver the best support to a business as a whole, IP asset management has to track the company's marketplace and business objectives closely. If patents are needed to protect a flow of important innovations and a business must constantly be innovating and turning over its offerings to stay relevant, then it should also be turning over its IP assets to keep pace with the changing marketplace and its own strategic needs.

That pace of change can differ widely by industry. The pharmaceutical industry lives at one extreme of the pendulum, with long cycle times and high costs for developing and certifying new drugs; the useful life of a product in the marketplace often extends well beyond the life of its patents. At the other extreme are mobile computing devices. Given the speed of innovation in the mobile phone sector and the inherent portability of content, innovations appear on the marketplace with every major new product release. As a result, industries that embed such devices, or derivative/connectivity capabilities, are also experiencing more rapid technology shifts and product turnover than ever before. In many of these industries patents last well beyond the products on which they provide the most strategic leverage. It is in these markets that the aggressive monetisation of good patents makes the most sense and delivers the most tangible value.

Research into the pace of turnover in significant new areas of invention and innovation has been published recently by L Kamran Bilir, associate professor in the economics department at the University of Wisconsin. As seen in the table above (published in her paper "Patent Laws, Product Lifecycle Lengths, and Multinational Activity" in May 2012), the T (years) presented in column 3 above is the average number of years that core new technology of that industry — effectively the major innovation lifecycle of "the innovative idea itself" — turns over altogether in products and solutions. It was derived from patent filings that reference

Figure 1. **US patent maintenance coupled with product lifecycle**



This data on maintenance rates and the graphs above are derived from "Strategic Portfolio-based patent investment and management" by Andrew Pham – *IAM* 45, Jan/Feb 2011

each other and indicates an area of innovation being explored by a collection of companies and research entities. What you see is that the range is from as low as 6.75 years (for electronics machinery) to as high as 11 years (for heating equipment), with most industries falling somewhere between eight and 10 years.

Bilir's research-supported observations will seem reasonable to many with regard to significant new technology adoptions across these industries. Still, many would argue that the pace of innovation over just the last five years – between 2007 and 2012 – has been even faster in some cases than her research suggests. The market and innovation leaders in smartphones, consumer electronics and the Internet were once Research In Motion, Panasonic and Yahoo!, but are now Apple, Samsung and Google. Aggressive technology innovation is now occurring in almost every industry.

The meaningful life of most patents in innovative industries is shorter than businesses think

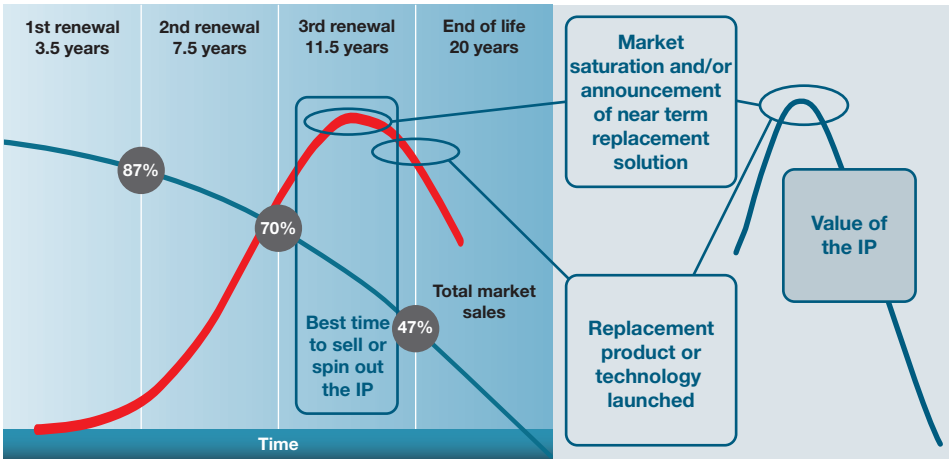
There is now a constant turnover in market-leading products, as well as in the rights that protect them. From patent application to allowance takes on average between three and four years in the United States. By then, a business's product may have already been launched (bio/pharma/medical product industries aside), and, if a product is disruptive, there will be competitor and copycat responses. Assuming a product turnover of between eight and 11 years, patents will typically be most important strategically between five and eight years after they issue. A business gains the most true market advantage by stopping or slowing down competitors when copycat innovations and improvements are still fresh and remain important purchase considerations in the marketplace. At this juncture, the decision becomes whether to use patents or other market power to fend off competition. Once the competition has been firmly established, then the market now is what it is. If by then the patents are not used to stop competition, is it important to retain these assets as theoretically exclusive but unenforced or politically unenforceable? The assets are likely to have another eight to 10 more years of potential value to extract – mostly from those not already licensed to the innovation. If nothing has been done by now – whether from lack of will or effective capability to do so going forward – then the patents are providing little strategic or monetary value and their useful life to the company is effectively over. They are just sitting on the shelf, generating very little real value for the company and its position in the marketplace.

There are always going to be exceptions to this. Businesses should hold onto those patents that they believe continue to deliver strategic value and need to retain well into the later stages of the life. However, the rest are best monetised before they are ultimately written off.

Best practice – manage patent holdings in sync with the lifecycle of products

Over time, a market leader's leverage in the

Figure 2. **Choosing when to sell or spin off IP**



Source(s): Illustration combines a graphic taken from "Strategic Portfolio-based patent investment and management" by Andrew Pham – *IAM* 45, Jan/Feb 2011 with lifecycle data taken from Bilir and Pluritas' original analysis and insights

marketplace – brand and channel power, economies of scale and scope – outweighs the need to maintain exclusive IP rights in established technologies. Unsurprisingly, there is strong historical correlation between the average US patent maintenance and a company's product lifecycle, since the cost of maintenance has ever-diminishing returns once a technology is well established in the marketplace.

Getting the most out of what has become excess intellectual property requires knowing when the value of a patent has peaked and how quickly thereafter it will lose value. For most assets, significant decline will likely take place within between 18 months and three years of its peak value. The clock for moving these assets out of the portfolio is ticking from the time that peak value is achieved. A business no longer needs them for off-balance sheet benefits, such as the ability to enjoin competition. Now it can move them back onto the balance sheet and produce meaningful returns to these investments before it is too late. Typically, companies can do so without losing the right to practise the inventions covered by the patents.

The graphic above depicts the timing required to maximise the opportunity to monetise excess core intellectual property for the highest value – the time when the perceived value of the rights is at its highest overall, even though growth rate is declining, possibly even turning negative. Companies should seize that window of maximum opportunity to spin out the intellectual property before it really starts to lose value in the marketplace. Logically combining the data on product lifecycles with the data on historical maintenance rates, it appears that the best time to spin out or sell off intellectual property for maximum value is between the 7.5 year and 11.5 year maintenances. That matches well with the innovation/product lifecycle of most industries, while still offering meaningful residual value to any future owner of the intellectual property being transacted.

Converting unnecessary patent holdings into cash

If a rights holder determines that it is holding onto more good patents than it needs, then it is time to part with excess holdings. By doing so, it can promote self-sustaining patenting activity or, better yet, generate meaningful free cash flow to benefit the rest of the business. A decade or more ago, such behaviour might have been viewed as a weakness – a failure to make full use of R&D and patents issued. Today, IP managers and many senior managements know better. A good patent portfolio is a perpetual work in progress.

Confidence is needed for this undertaking. The payoff in terms of more efficient use of capital and strategic alignment of resources is worth any possible short-term political disruptions. Doing nothing with valuable but diminishing patent assets is far worse a strategic failure than releasing them too early or for the

Maintaining a strategically important patent portfolio

Maintenance and growth cost	
Portfolio size	300 patents
Maintence %/yr	25%
Patents maintained/yr	75
Cost to maintain/yr	US$2,000
Total maintenance/yr	US$150,000
Portfolio growth	30 patents/year
Cost to prosecute	US$20,000/patent
Prosecution cost/year	US$600,000
Total cost	**US$750,000**

Example monetisation revenues	
Portfolio size	300 patents
Offered for sale %/#/yr	10%/30 patents
Patents sold/yr (50% success rate)	15
Median to average revenue/patent	US$100,000 to US$300,000
Gross revenues	**US$1,500,000 to US$4,500,000**

The bottom line Steady-state maintenance, portfolio growth, monetisation – All sales –	
Gross revenue from sales	US$1,500,000 to US$4,500,000
Less cost of sale (20%)	US$300,000 to US$900,000
Net proceeds	US$1,200,000 to US$3,600,000
Less cost to maintain the portfolio in steady state	US$750,000
Net gain to the company	**US$450,000 to US$2,850,000**

wrong amount. The consequence of inaction due to fear is zero return on the excess patent assets — a significant opportunity for the business squandered.

For any company with the means and time to engage in more than one innovation cycle, good intellectual property that is no longer delivering strategic value to the company starts to build up. The conventional wisdom of IP managers is that over time, as much as half of a company's portfolio is delivering it no financial or strategic value. The question, of course, is which half? However, acknowledging that various internal organisations can have disparate opinions as to what truly matters and needs to be held, it is not actually critical to identify exactly which half matters. By getting the organisation to work together and to agree on just a portion of what could be monetised at any given point in time, the effort provides meaningful return to the company while allowing for disagreements on which patents to monetise to be worked out. If even between 5% and 10% of the portfolio is cleared for transaction at any given point in time — nowhere near all of the monetisation options in the portfolio — that is still sufficient monetisable assets to work with.

A conservative scenario of what might be achieved through IP monetisation is useful for illustration purposes. Assume that a company has over 300 issued US patents (both home grown and acquired over time), and is working an active patenting programme that generates an additional 30 or more new issued US patents every year. If it costs US$20,000 on average to prosecute each new issued patent, it can be estimated that about US$600,000 is being spent on law firm and US Patent and Trademark Office (USPTO) related prosecution costs. Add to that, maintenance comes up roughly every four years — to put it another way, approximately 25% of your portfolio requires maintenance payments and support costs, at an average of roughly US$2,000 each, every year. In this scenario, that is another US$150,000 for a grand total of US$750,000 in costs directly associated with maintaining and growing your patent assets.

Next, assume that the portfolio is safely and efficiently trimmed back every year by 10% — 30 patents being designated for monetisation by way of sale or spin-out. Patents sold have historically enjoyed a median value of US$100,000 or so each in the marketplace, and an average value of more than US$300,000. If only half of the patents offered transact, deducting for the standard broker's commission, this effort would generate a conservative projection of between US$1.5 million and US$4.5 million in sales, depending on the quality of the assets being transacted. You have achieved a long-term sustainable equilibrium that will allow you continuously to cull and keep the patents that truly matter to you while also

Carpe diem: more market leaders monetise important IP assets, not just cast-offs

More and more companies are embracing active patent management. AT&T, HP, Philips, Nokia, IBM and others all have patent sale and spin-off activities that enable them to actively monetise their intellectual property.

Companies are also taking the next step and divesting once core rights either in outright sales or in spin-offs in which they retain some back-end interest in royalties generated going forward. They often do so quietly.

There are big differences in outcomes for those proactively monetising their once core strategic intellectual property – such as Micron or most recently NEC – and those that do so under some or significant duress, such as Kodak. Companies need to seize the moment to sell and/or spin off the patents once they no longer give an early market advantage, but while they may still have significant value to others in the marketplace.

Action plan

Determining which patents are essential, and when they become less so, can save corporate IP departments money and generate income. This means that patent holders should:

- Periodically identify (and re-identify) which patents address former, current and potentially future strategic needs. Ask whether the rights in question need to be held exclusively by the company any more. Can the business achieve the freedom to practise it requires without owning them? Would it be giving up anything significant if others were to own them?
- Incentivise key stakeholders – product and business managers, legal, engineering and business development professionals. Make certain benefits from supporting patent divestitures accrue to them.
- Package, support and time patent transactions for maximum ROI. Enlist the help of knowledgeable third parties to understand and transact in the marketplace.
- Consider the structure of a potential sale. How do you want to protect your products and your customers and vendors going forward? Do you need to consider them in a sale? If so, can a deal be structured to accommodate their interests without forsaking yours?
- Get comfortable with the trade-off between the scope of any grant back on the patents being transacted, and price.

actively generating new intellectual property to grow your portfolio intelligently.

The 10% solution: pruning your portfolio to keep it relevant

The model described in the table on the previous page is based on maintaining a strategically relevant 300 patent portfolio that delivers value to the company. Whether there are 300, 3,000 or 30,000 patents, the analysis scales accordingly.

Of course, some patents sell for far more than US$300,000: Nortel's patents sold for an average of US$1.5 million each, while Motorola Mobility patents went for an average of US$750,000 each. There are certainly very high-quality patent families that sell for well into seven or eight figures, and if they have had positive litigation/licensing history and there is still significant licensing potential remaining, these patent assets can and do sell into healthy eight or even nine figures. This can be an opportunity to examine the true gems of a portfolio and explore high-value assignment sales, or even licensing and enforcement through spin-offs where you can gain even more on back-end royalty payments over time.

As for the potential ecosystem disturbances that some fret about – new owners of the patents suing a company with its own patents, or suing its customers or partners – these can be resolved by accepting a lower price for the assets or by the buyer agreeing to 'white list' certain parties. Back licences – rights that protect your technology and products in whoever's hand they may be – are fairly typical elements of rights protected in IP asset transfer agreements. There is also the reality that many companies monetising their rights already embrace – the new owner may be their proxy for taking action with assets in ways that they were unable or unwilling to do directly themselves.

The greater risk

Of course, not all companies are comfortable with spinning out assets to an enforcement vehicle without placing restrictions on how their former IP rights can be used. They do so with their eyes open and understanding that they are receiving a lower price, sometimes a significantly lower one. Many businesses choose to go the 'safe route' for other strategic benefits, assigning the licensing of many of their best patents to a pool manager in pursuit of standards licensing for the industry. Given their position and interest in the marketplace, sometimes this approach is sensible and logical to them. That said, for many selling entities, the cash that they would earn on sales or spin-outs is much more important than taking significantly less and giving their competition and customers that choose to buy from their competition a free ride. There will be a growing risk from not selling or spinning off rights at the appropriate time. Doing nothing may appear to be safe, but it is in fact the riskier decision. Smarter shareholders are realising that it represents poor, or at best tentative, IP management and leaves precious value on the table. In the end, and for the interests of shareholders, IP owners are compelled to act and many companies worldwide are doing just that.

The priority for intellectual asset management is performance by supporting overall business objectives. Today, this can be achieved in new and innovative ways that rely on prudent portfolio management. Businesses that can identify ways to generate cash from non-working intangible assets safely will be clear winners with management and shareholders. Aggressive, intelligent patent monetisation is a significant opportunity that is easily overlooked or misunderstood. Businesses that communicate the value proposition of active IP management will put themselves in a better position to compete now and in the future. *iam*

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