BVCA GUIDES

British Private Equity & Venture Capital Association

Guide to

Intellectual property

Supported by AON

Contents

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For further information visit https://www.aon.com/m-and-a-transaction/intellectual-property.jsp

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Introduction

1.1 The rise of intangibles

The last forty years have seen a major rotation from tangible to intangible assets in companies' valuations. In 1975, the top five companies by US market capitalisation were IBM, Exxon Mobil, Proctor & Gamble, GE, and 3M—all relatively tangible asset intensive, especially at that time.

In 2021, the top five companies in the US are Apple, Microsoft, Amazon, Alphabet, and Facebook. This is replicated in all advanced economies, and for tech start-ups and scale-ups, the share of intangibles can be even higher. These companies' assets are largely intangible of which intellectual property ("IP") is a key element and one could conclude that IP is heavily correlated to the highest market capitalisations and P/E ratios.

This BVCA Guide to Intellectual Property has been prepared with the support of Aon and written for private equity and venture capital professionals to raise awareness of:

- How to use IP analytics to identify potential acquisition or investment candidates
- Why IP due diligence on investment targets should include a qualitative assessment and a review of the IP landscape
- How IP protection can create enterprise value for portfolio companies
- How IP risk can be managed
- How IP can be the source of non-dilutive capital preserving value to founders and early investors
- Why it's crucial to articulate the IP narrative and position IP as a value driver during series funding and at exit

1.2 Executive summary

- In the last four decades, we have seen the remarkable **shift in the contribution to overall business value from tangible to intangible assets**. This change is best illustrated by the shift in the proportion of total market value accounted for by intangible assets across the top five companies in the S&P 500. In 2018, intangible assets made up 85% of their market value. Compare that to the 1985 scenario, when intangibles only represented 32% of the market value of top five S&P companies. This shift is replicated in the UK and all advanced economies market, and the UK government has outlined the importance of IP and intangible assets in their UK Innovation Strategy (2021).
- The **value of IP and related intangibles are an important part of a company's corporate narrative and should be considered during M&A transactions**. On the one hand, IP drives enterprise value (acquisition revenue multiples) and the acquisitions themselves. On the other hand, during the M&A process, IP evaluation is generally limited to confirmatory procedural due diligence ("DD"). IP and related intangibles are,

‘Trade secrets are increasingly an area of investigation in IP DD. Indeed, studies show that a proportion (up to a third) of employees will not be happy with the transaction and could potential walk away with trade secrets.’

paradoxically, both extremely valuable assets and yet often overlooked in deal making. Bridging this gap presents an opportunity.

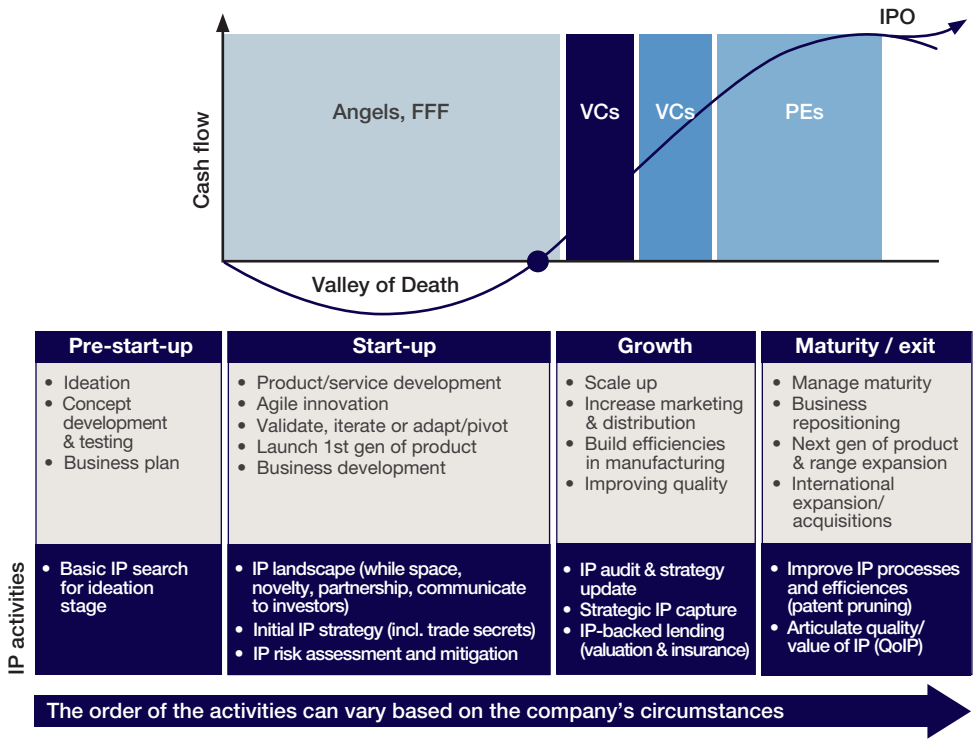
- Investors can include a **non-legal qualitative IP assessment during DD** to review the competitive landscape, quantify opportunities to support and create value aligned to business strategy and evaluate operational IP management processes and risks. For example, in software companies it is crucial to conduct source code DD to make sure not only that the IP has not been copied from a third party but also that it is not vulnerable to challenge or attack. Trade secrets are increasingly an area of investigation in IP DD. Indeed, studies show that a proportion (up to a third) of employees will not be happy with the transaction and could potentially walk away with trade secrets. Reviewing the processes and security measures in place within the target company can give reassurance to investors and will also identify areas for improvements. Finally, a non-legal IP business diligence can also identify potential post-deal cost saving opportunities based on patent quality and their maintenance cost.
- **Carve-out transactions** have been increasing significantly in the last two years with corporations refocusing their businesses and selling business units to PE buyers. Carve-out transactions are characterised by the complexity of splitting the IP assets between the remaining company and the carved-out entity. A data-driven patent portfolio segmentation and analysis can bring key insights on the quality, value and “usage” of patents between the selling entity and the carved-out business. This analysis can support complex negotiations and can identify IP assets which are a material part of the carved-out entity. In addition, this analysis can highlight potential cost-synergies through patent pruning or sales.
- **At portfolio level**, PE and VC investors can use IP analytics and IP litigation data to scan and compare their portfolio companies and identify source of IP risk or value enhancing opportunities. Portfolio companies or acquisition targets can be ranked based on the estimated risk of facing an IP litigation based on IP litigation data for similar companies in the same industry sector and devise risk mitigation strategies. Value creation and enhancement

opportunities can be found across the whole transaction cycle. Pre-deal acquisition targets can be identified with IP analytics, during the hold period IP value creation processes can identify and protect IP. Reviewing the whole portfolio can point to portfolio companies where IP cost savings opportunities (patent pruning or IP sale) may be found. At exit, articulating the IP narrative as a value driver in a M&A report can enhance transaction value.

- **IP-rich companies are attractive to VCs** for several reasons. First, compared to tangible assets e.g., a factory, the value of IP is not fixed and can keep growing in line with the performance of the business. Second, IP can help de-risking the scale up stage by building barriers to entry which can be enforced. IP can also help frame legal contracts with partners contributing to the growth of the business by defining clearly the boundaries of who owns the IP (current and future). In addition, start-ups can generate additional revenue through IP (brands, patents, copyrights, and technology know-how) licensing. IP can also be used as collateral to raise additional debt-finance. IP also provides an option for VCs to recoup some of their investment by selling the IP if the venture is not successful. In science-based start-ups, capturing patentable inventions and rewarding inventors can be a contributor to attract and retain top talent. Given all the reasons mentioned above it is crucial for entrepreneurs to communicate their IP narrative in a succinct and business-friendly way. A typical IP narrative document should include an accurate and comprehensive catalogue of the start-up's IP assets and include clear charts and visual representations.
- Preparing for an IPO requires a company to ensure it has clear ownership of the IP it is relying on. Strategically building a patent portfolio to enhance value or to act as a deterrent against 3rd party patent litigation can be done organically or through external acquisition. The announcement or rumours of an IPO are a magnet for litigations. In an analysis conducted by Aon, it was found that IP litigation increased by 220% when a company decides to IPO[1]; however, the long-term consequences can be even more significant. One study has found that a 'firm which experiences three lawsuits per year before its IPO regularly loses an additional -1.25% of its market value to litigation each year in perpetuity'[2].
- IP is critical for start-ups. It can protect innovation through patent or design rights, protect the brand and position it as innovative, leading edge. IP can also increase valuation and attract investors especially if potential additional revenue through licensing have been identified and assuming the IP narrative positions IP as a value driver. Additionally, IP can also provide some risk protection (deterrent role) and could lead in the future to tax credits. Scale ups with strong IP can even use their IP assets as collateral to raise non-dilutive capital.
- Several key IP activities tend to take place during the typical **start-up growth journey** going from the pre-start-up stage to maturity and exit as highlighted in the chart below. Starting to think about IP early in the growth journey can be advantageous for all the reasons mentioned above.

'IP can also increase valuation and attract investors especially if potential additional revenue through licensing have been identified and assuming the IP narrative positions IP as a value driver.'

The start-up growth journey and IP activities



Conclusion

Given the paradigm shift in the contribution to overall business value from tangible to intangible assets, every business – whether involved in an M&A situation or not – can now be focusing on **IP's ability to generate enterprise value, factoring it into financial models as with other assets**. This means capturing, documenting and protecting and valuing IP assets (including trade secrets), ensuring IP risk is understood and mitigated, and being able to communicate the IP position to potential investors or debt finance providers. **Entrepreneurs and investors have an opportunity to gain competitive advantage through their understanding of IP**.

2

Why intellectual property is important in the PE/VC world

2.1 Introduction

While investors are increasingly recognising the importance of IP for businesses they are investing in, for businesses they own or for businesses they are exiting from, many will consider IP being only a legal matter.

This section will start by emphasizing how systematically identifying, documenting and protecting IP can create enterprise value. Later, we will highlight the role of IP beyond providing barriers to entry in enabling commerce and how legal and innovation effects compound to give strong profitability deltas and high price to earnings ratios. Then, we focus on the gap between Enterprise Value in M&A and what the M&A process addresses by highlighting the buyers' and sellers' problems related to IP. Subsequently, this section covers how at portfolio level, PE and VC investors can use IP analytics and IP litigation data to scan and compare their portfolio companies and identify source of IP risk or value enhancing opportunities. Finally, we introduce how dealmakers can use IP as collateral to create new financing opportunities.

2.2 IP represents unrealised value

With IP assets contributing to a large percentage of a company's value, systematically identifying, documenting, qualifying, and protecting IP assets is key to create enterprise value.

Every business – whether involved in an M&A situation or not – can now be focusing on the hidden value in their IP, treating it as a board-level agenda item to encourage IP Counsels and Chief IP Officers to grow and enhance their intangible revenue growth in line with their business strategy.

If it is not a Board agenda item already then perhaps CEOs and CFOs, who have a fiduciary duty to their shareholders, need to look at their tangible and intangible asset ratios and figure out whether they are allocating resources *appropriately*, between their relatively small tangible asset ratio on their balance sheets and the much larger and faster-growing intangible assets. The opportunity to enhance value in almost every aspect of the transactional value chain and optimise transactions to extract IP value is here now and the business case for doing so is increasingly coming to the fore.

While there is still a long way to go, the board-level focus on IP and IP value creation has improved in recent years. This is mainly due to buyers becoming more receptive to conversations leading to valuing the underlying IP assets and appropriately identifying the IP value of target companies; and often to identifying IP that can immediately be divested or is non-core (which often sits stagnant on the balance sheet, post-sale).

'IP increases companies' ability to partner with (and even be acquired by) large companies while reducing the risk that their products will simply be copied.'

Protection of IP is also key. If you are buying a business where much of the IP lies in the technology and software, for example, it is important to fully capture your trade secrets, as part of innovation capture goes beyond filing patents. In the UK, the Centre for National Security Infrastructure has produced Secure Innovation Guidance, which highlights the risks that growing companies and investors in the innovative and emerging technology space can encounter and provides practical steps to take to protect IP and inform DD processes.

2.3 IP enables commerce

Registered intellectual property and proprietary data rights provide direct, legal barriers to entry that reduce commercial copying and concomitant deterioration of IP owner profitability. Patenting has been found to correlate positively with startup survival and success, IPO prices, firm longevity, and enterprise acquisition value.

IP increases companies' ability to partner with (and even be acquired by) large companies while reducing the risk that their products will simply be copied. This is particularly obvious in the pharmaceuticals industry, but it is also true, to some degree, across a broad spectrum of industries with significant technology, data, and science-related functions. As in other areas, software and internet services features may rapidly be copied absent IP and proprietary data sets.

Through such barriers, or "gates", IP and related intangibles enable commerce. For example, a small biotech company with a patented new drug can entertain commercial partnerships with a giant pharmaceutical company with less fear that its discovery will be taken and commercialised without proper compensation. IP enables discoverers to not be alchemists—squirreling away secrets in basements. Instead, a valuable discovery can be shared under controlled circumstances—whether by patent or by confidentiality agreement (in theory).

Inventors can get credit and get paid. Pioneering companies, big and small, can capture revenue lines and profit centers that would have been quickly wiped out absent IP, intangibles, and control. This contributes to why technology leaders have strong profitability deltas and high price to earnings ratios—especially when these legal, innovation effects compound.

2.4 Gap between enterprise value in M&A and what M&A process addresses

the value of IP and other intangibles are often neglected in a company's corporate narrative and during M&A transactions. On the one hand, IP drives enterprise value (acquisition revenue multiples) and the acquisitions themselves. On the other hand, during the M&A process, IP evaluation is generally limited to confirmatory procedural DD; its value to "a plug number." IP and related intangibles are, ironically, both extremely important and surprisingly invisible to the actual deal makers.

This disconnect arguably leads directly to a loss of M&A value for both sellers and buyers. The seller has unique IP knowledge which isn't necessarily transferred or valued in the process. This increases the likelihood of surprises for buyers; and PE and public company buyers disdain surprises.

Seller problems:

- You are not getting valuation credit for IP and other intangibles (such as proprietary data), just your revenues—and prospective revenue / revenue models are at risk in an economic crisis.
- Your investment in patents deserves an explanation that is richer than "we have x assets"; one that explains the assets relationship to your products and service, their relative quality, and fit relative to peer and potential buyer portfolios.
- Outside of certain industries, deal makers on the buy side may see your "gold

patents"—competitive barriers to your core product features, pioneering patents, etc.—as indistinguishable from any other patent. Outside of perhaps pharma, semiconductor, and other exceptional industries, investment bankers may not consider differences in individual patent value or quality.

- You may lose material value during investment or M&A process itself. A significant minority of M&A acquirers and investors are looking for deals to acquire strategic business intelligence and even—in theory legally—trade secrets as part of the DD process. There have been many broken transactions followed up by trade secret disputes, meritorious and otherwise. Each side needs to be protected from such loss or claim. Moreover, knowing when, how, and precisely to whom to share trade secrets is a critical element of deal success. But—particularly if we assume that M&A non-disclosure agreements are imperfect in form or in long term adherence—the procedural approach to exposing such data sets is rarely systematic. It can particularly be leaky with respect to non-technical trade secrets (like customer lists or business strategies that are dynamic or insufficiently set apart). Accelerating operational deal tempos only exacerbate this risk—and both sides may require formal risk management solutions.
- Where a strategic buyer or investor is engaged in a "build versus buy" analysis or evaluating a new market or technology through its strategic investment arm, premature release of trade secrets (particularly undocumented or "unregistered" trade secrets) by a seller / investee can be particularly damaging—both to deal price and even to the prospect of any deal at all. With 20/20 hindsight, most inventions can seem obvious, but particularly the unpatented, insufficiently documented ones.

Buyer problems:

- If IP and intangibles represent the majority of your acquired value; and
- Two thirds of your acquired talent is going to walk out the door within roughly three years;
- And a substantial portion of departing IP generators think it is ok to share IP with your competitors;
- Then strategic acquirers and others may lose the majority of their acquired value, unless the innovations and technology it acquired are systematically covered by patents and other IP assets.
- There is general information asymmetry between seller and buyer over how IP intangibles are actually generated and effectively integrated into products and services. This:
  - prevents buyer from acquiring material value information on the target (i.e., value in a potential buyer's business stack), reducing bid intelligence and occluding what deal terms are material to such bidder;
  - reduces the probability of successful target integration, because the buyer doesn't understand (i) which key IP producers produce what where, nor (ii) how to successfully scale the past and potential IP target generates; and
  - increases risk of "buyer surprise", both in terms of (i) technological or other intangibles gaps, and (ii) litigation risk that comes from deeper buyer pockets, wider product integration, and/or a lost defensive license or patent family.

‘Patents are relatively clear and discrete and can be further developed both before and after an acquisition. In contrast to trade secrets and proprietary data, patents stick around (if not always their inventors)’

Patents are relatively clear and discrete and can be further developed both before and after an acquisition. In contrast to trade secrets and proprietary data, patents stick around (if not always their inventors). But even for patents, most buyers don’t really know (a) what is in the patent portfolio being purchased, (b) how it relates to seller’s revenues, and (c) what new patent risks may actually materialize in an acquisition.

As suggested above, acquired patent risk may be higher than historic (seller) patent litigation risk because (a) buyer may lack a defensive license umbrella that the divesting seller retains, (b) buyer may have deeper pockets than seller (especially for startups) or otherwise promotes the acquisition in a manner that draws patent monetizer attention, and/or (c) buyer distributes the acquired technology across several new business lines / products, and this creates new patent infringement “attack surfaces”.

Because companies generally don’t track [by definition unpatented] trade secrets, they generally don’t know when they walk out the door. A financial purchaser with less knowledge in the industry, may be even more exposed than strategic buyers with respect to post-acquisition intangibles loss. Debt loads may further induce IP-indiscriminate layoffs, where long term value loss (i.e., of key innovators) is unseen. And layoffs are common in both economic duress and heavily leveraged private equity transactions.

The biggest generators of IP assets (particularly unpatented assets) may thus be cut indiscriminately with others, without appreciation for what that does to the long-term revenue and growth prospects of the acquired company.

2.5 IP as a source of risk and value at portfolio level

At portfolio level, PE and VC investors can use IP analytics and IP litigation data to scan and compare their portfolio companies and identify source of IP risk or value enhancing opportunities.

IP risk

Portfolio companies or acquisition targets can be ranked based on the estimated risk of facing an IP litigation based on IP litigation data for similar companies in the same industry sector. Focusing on companies with a high or medium IP risk and devising risk mitigation strategies (e.g. IP insurance, building a defensive patent portfolio) ahead of a potential IP litigation can reduce the IP risk of the overall portfolio. Investment in risk mitigation strategies would actually create enterprise value as it would be seen positively by potential acquirers at exit and increase the likelihood of a smoother M&A process.

Value creation

Value creation and enhancement opportunities can be found across the whole transaction cycle.

PE funds looking for acquisition targets with strong IP in specific technology domains can generate list of acquisition candidates through IP analytics.

IP training and projects to strengthen IP management processes can be run by the PE’s Value Add team in conjunction with consultants like Aon. Key enterprise value creation IP processes like IP capture will allow portfolio companies to identify and protect their IP.

Annual review across the whole portfolio of IP assets can identify potential cost saving and IP divestment opportunities.

Reviewing IP rich companies across the whole portfolio pre-exit can also help prioritise project work to ensure the IP position at exit is being articulated as a value driver. IP analytics can also help identify strong strategic buyers.

2.6 IP as collateral

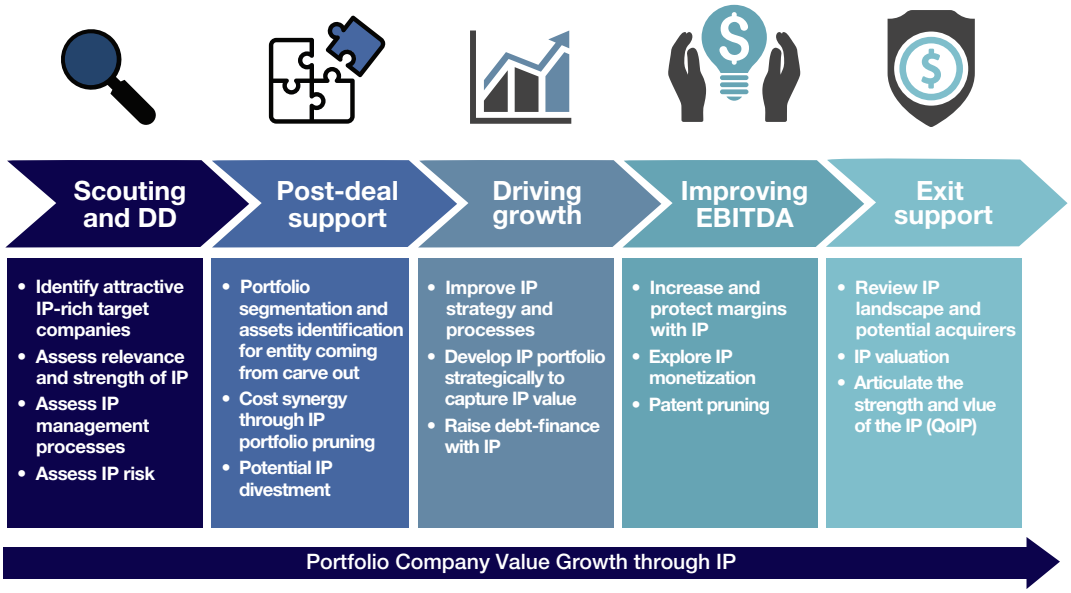
Another key focus for dealmakers should be in the use of IP as collateral to create new financing opportunities. When the next economic downturn comes – if it is not around the corner already – people will be wondering why they are not maximising their revenue from the valuable captive *assets* on their balance sheet instead of simply seeing them in terms of *protection* and *cost*.

Chinese lenders have stolen a march on UK banks, for example, by lending to SMEs based on valuations of IP-backed collateral. This enables businesses to accelerate and finance their growth but not at the expense of giving away equity and large proportions of their company. By using collateralised IP, the cost of capital can be significantly less than the equity diluting approach, which offers up all kinds of new opportunities.

China's National Intellectual Property Administration (CNIPA) and its top banking regulator have promised a new set of policies to facilitate Chinese SMEs' access to IP-backed lending. The announcements come after China's

Enhancing return for the VC and PE funds

Typical opportunities across the whole transaction cycle of a portfolio company to create value and enhance investment returns through IP



'It has been argued that lenders in UK and Europe ought to recognise that IP-rich innovation-led SMEs require access to more developed IP-backed debt funding solutions, which are often a better value as compared to the higher cost of equity capital.'

cabinet, the State Council, endorsed IP finance as a way to spur growth among SMEs.

(**Source**: IAM : https://www.iam-media.com/copyright/china-seeks-boost-ip-lending for full article)

The China Banking and Insurance Regulatory Commission (CBIRC) declared in early July 2019 that commercial banks will have to report IP-backed finance in their credit plans for that year. It says it will encourage more lenders to fund projects on the basis of IP portfolios. CNIPA did not specify what steps it will take, but said that the goals of an upcoming new policy on IP finance would be improving risk management and enhancing 'innovation in services'. The administration provided a snapshot of China's IP lending ecosystem during the first six months of 2019: (1) $8.5 billion in loans backed by patent and trademarks supported more than 3,000 projects (2) Patent-collateralised loans funded 2,710 of those projects (3) More than 2/3 of these projects qualify as 'microfinance', with loans worth no more than 10 million yuan ($1.4 million); and (4) In total, 6,450 accounts with Chinese financial institutions have received IP-backed loans

The British Business Bank launched British Patient Capital in 2018, which was given *'resources of £2.5 billion to deliver a new investment programme to invest in high-growth innovative firms and crowd in private investment'*. This will increase the provision of equity investment, including to IP-rich firms. IP financing is one of one of many reasons that the work of the UK Intellectual Property Office (IPO) and British Business Bank is so timely and important, as highlighted in their 2018 Report, where they have outlined the need to enable SMEs to have greater access to UK lenders and debt funding and the obstacles to and potential for using IP to access finance. The paper considers the role of IP as collateral for growth debt finance, rather than in supporting other forms of finance (i.e., equity). This has been built on in the UK Innovation Strategy (2021), produced by BEIS, which identifies the need to: improve lenders' understanding of business innovation and support their ability to assess risk when lending to innovative businesses with intangible assets, provide further resourcing for the IPO to help protect UK innovation, and increase IP safeguards.

It has been argued that lenders in UK and Europe ought to recognise that IP-rich innovation-led SMEs require access to more developed IP-backed debt funding solutions, which are often a better value as compared to the higher cost of equity capital. It is positive that the UK is taking steps in this direction as China has mobilised its considerable resources to push this domestically and internationally.

3

IP in private equity transactions

3.1 Introduction

This section starts by highlighting the importance of IP in M&A DD given that intangible assets can represent the majority of a company's value. We then explain in particular the need to go beyond the legal confirmatory IP DD and for evaluating IP quality, how the target compares to peers in the strategic IP landscape and how mature is the business in IP management. Later, we introduce the need for a business-friendly IP narrative at exit. Finally, given the increasing number of carve-outs we introduce some of the complexity related to IP in these transactions.

3.2 The importance of IP in PE transactions

In Aon's recent report on M&A – Leaving nothing on the table: Unlocking off-radar transaction value – Aon outlined the shift in the contribution to overall business value from tangible to intangible assets. This change is best illustrated by the shift in the proportion of total market value accounted for by intangible assets across the top five companies in the S&P 500. In 2018, intangible assets made up 85% of their market value. Compare that to the 1985 scenario, when intangibles only represented 32% of the market value of top five S&P companies. A trend emerges which begins to explain why IP and intellectual asset management are becoming increasingly important to PE funds, both in enhancing value and in reducing risk.

It's not just a reflection of the emergence of innovation and the dominance of IP in the Fourth Industrial Revolution or of technology companies either; look at FMCG, luxury or consumer goods companies, for example, where the third or fourth line on their balance sheets is intangible assets, representing 60% or in some cases as much as 70% of the balance sheet.

This paradigm shift raises important questions when it comes to M&A DD and IP DD. If you are looking to acquire a business, do you know exactly what you're buying from an IP perspective? This is particularly true in M&A, where the acquirer will want to confirm that the value of the target company is supported by the degree to which the target owns, or has the right to use, all of the IP that is critical to its current and anticipated business. This is often the differentiating asset in high tech deals but also in patent and IP-rich enterprises. Often the assets are not backed by IP registrations or those registrations can be challenged; indeed, in some cases the inventors or creators of the IP are no longer with the company and the ownership rights are unclear.

There are relatively significant examples of companies that have bought expensive IP portfolios as part of acquired businesses without looking closely enough (or at all) at the target IP

'Building a landscape of patents relevant to the target and benchmarking the size and quality of the direct competitors and key assignees give insights to investors on potential IP risk and on the relative strength of the target's IP position.'

assets. These purchasers often did not realise what IP value they were leaving on the table. In some of those cases, the seller was in fact exiting the market entirely and would have given those IP assets away *readily* and likely *very cheaply* but the deal scope and M&A team only looked at the operating business not the IP of the group used exclusively by or associated with the target.

3.3 Evaluating IP quality and doing IP business diligence

Traditional IP DD is taking place late in the transaction lifecycle and is mostly a legal confirmatory DD exercise to check for potential issue related to ownership, invalidity, renewal fees, liens, third party claims, inadequate evidence of employees IP assignments and failure to obtain third party consents, licenses, freedom to operate, existing infringement cases, and litigation.

Confirmatory legal DD tends not to include a qualitative assessment of the target's IP assets. A qualitative assessment can sometimes highlight major issues such as misalignment between what the IP covers and major revenue lines, soon-to-expire patents, weak patents with narrow claims, etc.

Given the fast pace and compressed timescales of M&A and the size of some IP portfolios, reviewing IP assets in detail is generally not possible without leveraging insights from sophisticated IP analytics tools.

Many investors have realised the strategic importance of IP for the target company to carry out IP business diligence, which includes patent landscaping and competitive IP benchmarking. Building a landscape of patents relevant to the target and benchmarking the size and quality of the direct competitors and key assignees give insights to investors on potential IP risk and on the relative strength of the target's IP position. It can also bring to the surface some hidden value from the target's IP by identifying potential licensing opportunities.

For software companies it is crucial to conduct source code DD to make sure not only that the IP has not been copied from a third party but also that it is not vulnerable to challenge or attack. In the case of source code, it is critical to ensure that your source code does not provide a gateway for hackers into your systems and allows them to steal your trade secrets or IP (or infringe open source protocols or licenses). Cybersecurity tools exist to scan and cross-check databases for source code issues against databases.

PE and VC investors may also want to dig deeper to assess the maturity of the target's IP management processes, as future success will partly depend on how well will the business capture and protect future generated IP. In particular, trade secrets are increasingly an area of investigation in IP DD. Indeed, studies show that a proportion of employees will not be happy with the transaction and could potential walk away with trade secrets. Reviewing the processes and security measures in place within the target company can give reassurance to investors and will also identify areas for improvements.

Finally, a non-legal IP business diligence can also identify potential post-deal cost saving opportunities based on patent quality and their maintenance cost.

3.4 New model for IP work in M&A

Traditional IP work in support of M&A and capital markets can, in some cases, be brutish, short, and unlikely to affect transactions. The new model for such work in intangibles-intensive M&A is, in contrast:

i. Sustained across and beyond the M&A process—a single narrative and arc to revenue;

ii. Tied to the C-level business strategy of both parties, acquirer and acquiree;

iii. Connected to products, sales, and revenues—not just viewed as something someone is "supposed to do" as part of a legal cost center; and

iv. Communicated to your investors, and valued through your banker, in language they expect, not in overly technical jargon.

New solutions to position IP as a value-driver are needed to enable transactions that would otherwise not happen, by making critical IP and other intangible assets, and value to the acquirer, visible to transaction parties. This is especially true of transactions where the seller's assets are only or are predominantly IP.

3.5 IP in carve-out transactions

Carve-out transactions have been increasing significantly in the last two years with corporations refocusing their businesses and selling business units to PE buyers.

Carve-out transactions are characterised by the complexity of splitting the IP assets between the remaining company and the carved-out entity. Several aspects of this complexity are highlighted below:

Decision on ownership, future use and cost

Successful completion of a carve-out transaction requires complicated decision-making regarding the ownership and future use and cost of IP assets. Patents in particular have often been developed by central R&D or may be providing IP protection across several business units.

Split rights

The carve-out entity may operate in a specific territory and patents families may need to be split by geographies. Patents sometimes cover multiple technical fields, and it may be necessary to split the rights per field of use between the carve-out entity and the parent entity.

Exclusively or primarily used

Buyers generally expect to acquire all assets which are exclusively or primarily used in the acquired entity, but sellers may not be willing to sell patents related to other IP assets or used across other subsidiaries.

Current vs future use

Decisions on usage of IP assets should also consider future products, e.g., could a future product sold by the carve-out require the use of an IP asset currently not used?

Back-license to seller vs license to carve-out

Typically, IP assets which can be identified as primarily or exclusively used by the carved-out entity will be sold and accompanied by back-licenses to the seller. When assets are used by multiple entities and not mostly by the carved-out business, they usually remain owned by the seller with a license granted to the purchaser.

Unnecessary cost

It is worth noting that buyers may be reluctant to purchase and maintain weak and low value assets and incur significant unnecessary cost (and liability exposure – e.g., obligation to maintain and enforce if licensor) to the benefits of the other beneficiaries of the IP in the selling company.

Analytics and portfolio segmentation

A data-driven patent portfolio segmentation and analysis can bring key insights on the quality, value and "usage" of patents between the selling entity and the carved-out business. This analysis can support complex negotiations and can identify IP assets which are a material part of the carved-out entity. In addition, this analysis can highlight potential cost-synergies through patent pruning or sales.

4

IP in venture capital transactions

4.1 Introduction

This section starts by going through some of the reasons why VCs are attracted to IP-rich companies and how entrepreneurs should communicate their IP position to investors. Later, we highlight complexities related to IP in IPO and in particular how announcing an IPO will increase the risk of IP litigation and can impact market value.

4.2 The importance of IP in series funding

IP-rich companies are attractive to VCs for several reasons:

Increasing IP value

Compared to tangible assets e.g., a factory, the value of IP is not fixed and can keep growing in line with the performance of the business. Some IP assets like trademarks do not have limited life as opposed to patents (20 years).

IP can facilitate the scale up stage

A multi-layered IP protection (patents, trademarks, design rights, copyrights, trade secrets) can help a start-up de-risk the scale up stage by building barriers to entry which can be enforced. Trademarks in international markets will be particularly important. IP can also help frame legal contracts with partners contributing to the growth of the business by defining clearly the boundaries of who owns the IP (current and future).

IP can be leveraged

Start-ups can generate additional revenue through IP (brands, patents, copyrights, and technology know-how) licensing. IP can also be used as collateral to raise additional debt-finance. IP also provides an option for VCs to recoup some of their investment by selling the IP if the venture is not successful.

IP can attract and retain talent

In science-based start-ups, capturing patentable inventions and rewarding inventors can be a contributor to attract and retain top talent. Companies can, for example, promote a climate of innovation and personally encourage and reward inventors when patents are granted.

IP for marketing

Today's economy is increasingly technology-driven and many brands will want to be positioned as leading-edge or innovative. Having a patent filed would allow the company to claim they have a unique feature and use patent-pending on their sales and marketing materials.

4.3 IP narrative in investors deck

Given all the reasons mentioned above it is crucial for entrepreneurs to communicate their IP narrative in a succinct and business-friendly way. A typical IP narrative document should include

'With one third of all firms that IPO being targeted in patent infringement litigation[1], capital should be set aside to allow for pre-IPO IP DD, IP acquisition and risk mitigation strategies (e.g. IP insurance) and active defence'

an accurate and comprehensive catalogue of the start-up's IP assets and include clear charts and visual representations. This will demonstrate an understanding of the patent landscape the company is operating in, the quality and uniqueness of its IP and its role, the health of its IP pipeline, and the processes already in place or being developed to manage IP.

4.4 IP in IPOs

Much has been written and learnt about IP issues pre- and post- IPOs. This includes the A-Z lexicon of value creation, from pre-IPO acquisition strategies, such as the Uber patent acquisitions prior to its IPO to issues around independence / IP dependency. Another example is the OPC Drums case, where rights to use core design patents employed in the manufacture of most of its products were found to have been terminated.

Dependence on core IP assets is increasingly prevalent and strategic. *Legal and non-legal* DD requires particular attention to the subject company's dependency on third party IP in the run-up to IPO disclosures. Valuation is crucial.

Identifying and plugging gaps in IP ownership, third party rights dependency and reducing or completing IP ownership diligence is an important early step on which to focus.

Active IP and intellectual asset strategy prior to the IPO is required to deal with the complexity of IP rights ownership and dependency issues, both as an active defence and to create strategic value creation plans to enhance value. This will include, increasingly, information and data-management and access controls to innovation leaders and inventors, as part of the IPO planning activities - and not just to maintain consistency between information disclosure and the *legal* status of IP rights.

Finally, in light of litigation that often follows strategic IP-rich IPOs, with one third of all firms that IPO being targeted in patent infringement litigation[1], capital should be set aside to allow for pre-IPO IP DD, IP acquisition and risk mitigation strategies (e.g. IP insurance) and active defence. This is true even where the transactional liability coverage and agreements have been scrutinised and complete disclosure appears to have been given. In an analysis conducted by Aon, it was found that IP litigation increased by 220% when a company decides to IPO[1]; however, the long-term consequences can be even more significant. One study has found that a 'firm which experiences three lawsuits per year before its IPO regularly loses an additional -1.25% of its market value to litigation each year in perpetuity'[2].

5

Why is IP critical for start-ups?

5.1 Introduction

With the excitement surrounding a new business idea, driven entrepreneurs rarely put IP on their top priority list. Instead they focus on raising investment, developing their products or services as soon as possible, building partnership agreements, hiring staff, developing their marketing strategy, etc.

IP tends to be seen as a nice-to-have, something to deal with later on when more cash will be available.

Delaying the development of an IP strategy could not only end up costing the start-up more but will actually reduce its chances of success for several reasons.

5.2 IP can protect innovation

IP can help protect the start-up's Unique Selling Point or disruptive differentiator and compete with large incumbents. Filing a patent application covering a unique new product feature or production process could, if the patent claims are strong, allow the start-up to use its IP rights to exclude competitors or be compensated with royalties if it decides to share its IP across the industry.

5.3 IP can enhance the marketing strategy

In a technology-driven world with constant innovation, brand-focused businesses can position their brand to be perceived as being innovative through referencing patent protection - "unique patent protected device…"

5.4 IP can increase valuation and attract investors

Investors often consider start-ups' IP positions during funding rounds. Having a strong IP narrative explaining how the IP protects the business uniqueness, its relative position (patent quantity vs quality) against other major patent holders in its relevant landscape, the processes the company has developed to capture new IP and manage existing IP will tend to increase the company's valuation. Indeed, investors may see that the IP could become the reason for a future acquisition, the IP could facilitate non-dilutive debt funding through IP-backed loans and the IP could enable investors to recover some value from their investment if the business fails.

5.5 IP can provide risk protection

Technologies are increasingly converging. Digitisation of all industry sectors is bringing connectivity and smart functionality to most products. The risk of infringing 3rd party's IP is increasing and having filed its own patents can provide a start-up a certain level of IP protection against 3rd party's legal action by acting as a deterrent, i.e., a business may hesitate to sue a potential infringer if it could potentially be countersued.

5.6 IP can be the source of additional financing through IP-backed lending

Strong IP assets can be used as collateral for IP loans to allow companies to raise non-dilutive capital. With strong and robust valuation and innovative collateral protection insurance, this type of solution can be applicable to late stage / revenue generating start-ups with strong patents, software, data, designs or copyrights.

5.7 IP can generate additional revenue through licensing

While it is usually unrealistic to expect any revenue generation from IP licensing for a new business with registered IP rights in its first years of life, having registered IP rights can provide new revenue opportunities in the growth stages. For example, the business may wish to accelerate its growth by licensing rights into international markets where building an operation would be too slow. There is also the possibility that the start-up may want to accelerate the adoption of a new product category by licensing some of its enabling technology IP to competitors while retaining the IP related to its differentiator. The company may have also evolved over time since the original business idea and rights may not be 100% relevant to the current business but may well have licensing potential into adjacent markets.

5.8 IP can support application for tax credits

Tech start-ups can generate highly skilled jobs and governments are looking to promote innovations by offering various innovation tax incentives like R&D tax credits, Innovation/ patent box. Applying for these tax incentives can seem daunting for small businesses, but early planning and external support can allow the company to recover a portion of its R&D tax and could reduce its corporation tax when a profit will be generated which would increase investors' interest.

5.9 The start-up growth journey and IP activities

Several key IP activities tend to take place during the typical start-up growth journey going from the pre-start-up stage to maturity and exit as highlighted in the chart below. The start of the journey focuses on understanding the IP landscape and on assessing and mitigating potential IP infringement risk. It is also the time when the high-level IP strategy and the management processes and policies are designed. The high-level strategy should be documented in a document describing the IP landscape the company is operating, the role of IP in supporting business objectives (e.g., protecting premium pricing, enhancing a product differentiator, deterrent against 3rd

‘Articulating the IP narrative of the business and positioning IP as a value driver in the M&A process should be a key priority.’

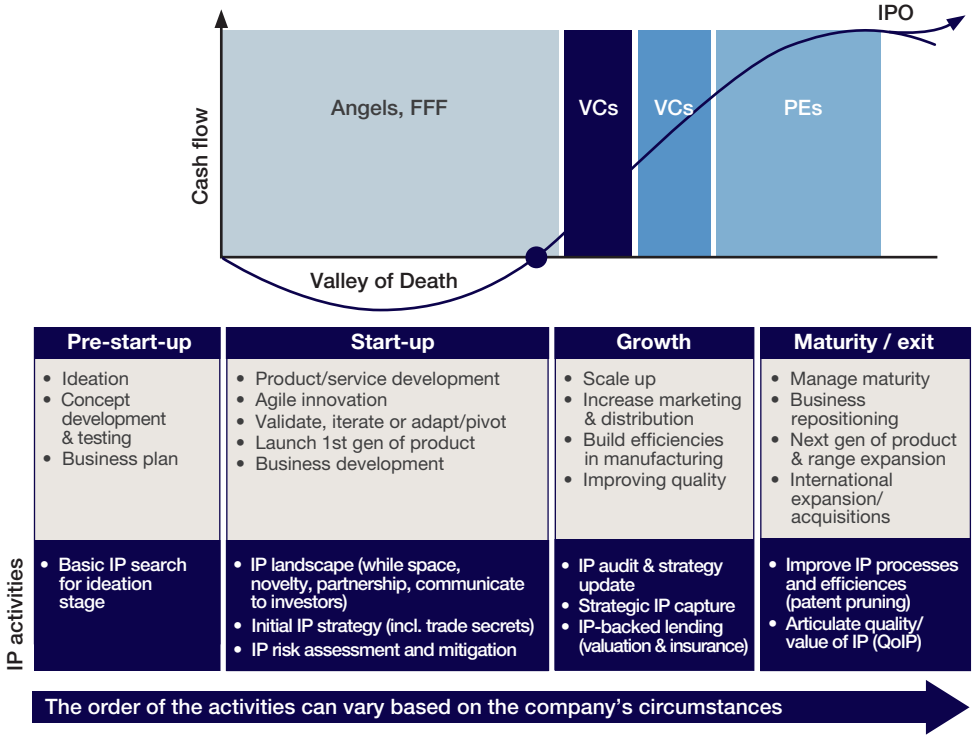
party litigation, etc.), how IP will be captured, what protection will be preferred (patents vs trade secrets for example), what should the IP budget be, what will be the key IP management processes, and how should IP performance be measured. Policy aims at the early stages are to avoid having issues on potential claims from employees, consultants, and other external parties on the IP developed by the company. Understanding the competition (both product and IP) will enable the start-up to assess the IP infringement risk level and to mitigate it through solutions like IP insurance. IP Insurance also has the benefit of potentially covering pursuit cost, i.e., the cost incurred to assert IP rights against an infringer.

The growth stage is often when the company generates many innovations to extend the product range or to introduce new improvement features in order to stay ahead of competitors. It will be key to systematically capture the IP generated.

Later stages will hopefully see the business generate good revenue and its first profit. The aim for the management team will be to raise additional capital for further expansion. IP-backed lending can provide an opportunity for revenue generating and cash-flow positive IP-rich companies to raise non-dilutive capital by using its IP as collateral. Innovations in IP finance are emerging.

The pre-exit stage is the time to focus on efficiencies and improvement for IP processes. Articulating the IP narrative of the business and positioning IP as a value driver in the M&A process should be a key priority.

The start-up growth journey and IP activities



6

IP education

6.1 Patents

A patent is a legal monopoly granted by a country that gives the owner a limited term right to prevent others from making, using, or selling the invention. In exchange for this right, the inventors must provide a written description of the invention that enables others to practice the invention. Patents are a national right, so a patent application must be filed in every country in which patent protection is desired.

In this manner, inventors are rewarded for their creativity and companies benefit by the protection of their ingenuity while advancing technology via the sharing of their knowledge. In most countries, the patent term is twenty years from the date of filing the patent application.

One important consideration is that a patent does not give the owner the right to practice their invention, only the right to prevent others from making, using, or selling their invention. For example, inventing a modification to a device or method does not give the inventor the right to practice the underlying invention that has been modified.

Supplementary Protection Certificates (SPCs) extend the duration of patents for up to five years. SPCs are available for patents related to medicinal products for humans or animals and exist to compensate the patent owners for the long time needed to receive regulatory approval for their products.

In order to obtain a patent, the invention needs to satisfy the following 3 conditions:

- Industrial applicability, i.e., something that can be made or used
- Novelty, i.e., something new, not made public
- Inventive step, i.e., the invention cannot just be a simple modification of an existing invention. The invention cannot be obvious to someone involved in the relevant technology field.

The process to obtain a patent starts by filing a patent application with the help of a patent attorney. The application will then be examined by the Patent Office (UK IPO) for acceptability, and potential amendments can be required to answer objections. After a period of time the patent application will be published, and the document will be accessible from the patent office or patent databases such as Google Patents. Once the Patent Office is satisfied all requirements have been met, the patent will eventually get granted and the new granted patent document will be published. The full application process takes 2-5 years.

6.2 Trademarks, domain names, and brand

A trademark is a type of intellectual property right that helps consumers distinguish one manufacturer's goods from the goods made by another. Trademarks are words, or names or symbols, adopted and used by a manufacturer to identify the manufacturer's goods, and distinguish those goods from goods offered or sold by another manufacturer.

‘A trademark can be a word, a name, a symbol, a design or a combination of words and symbols or designs. Common trademarks include words or corporate logos. In addition, in some countries, trademark protection has been granted for colors, smells, sounds, container shapes, or the shape of the product itself. ’

A trademark has several functions. A trademark is an indicator of the manufacturing source or origin of goods, and helps the trademark owner’s products be distinguished from others’ goods in the marketplace. In other words, a trademark helps identify the goods, so consumers are not confused as to the source of the goods. A trademark also is a representation of the quality of a product, so each time someone buys a product which has a trademark on it, they know it will be of a consistent level of quality.

A trademark can be a word, a name, a symbol, a design or a combination of words and symbols or designs. Common trademarks include words or corporate logos. In addition, in some countries, trademark protection has been granted for colors, smells, sounds, container shapes, or the shape of the product itself.

A trademark can be registered with the trademark office of a country, if requirements are met. Trademarks are registered on a country-by-country basis, meaning rights in one country do not give you trademark rights in another. It is important to note that trademark registrations are granted only for the goods (or services) listed in an application to register. Trademarks do not give you all rights to all uses of a word, rather trademark rights are limited to the goods (or services) used in connection with the trademark, and the goods listed in the registration.

As an IP right, trademarks can be licensed to other companies. Additionally, trademark owners can file legal actions for trademark infringement to protect their products and services. In order to maintain a trademark, the trademark must be continuously used in commerce, either by the trademark owner or by a licensee. There is no set expiration of a trademark, and a trademark can be maintained as long as the trademark is being used on a good or service.

To alert others of a trademark, the good or service is marked with a trademark symbol. ® (a superscripted capital “R” in a circle) is used to indicate that the trademark has been registered with a government. Registered trademarks provide better protection for the trademark holder than unregistered trademarks. For unregistered rights, a TM or a SM can be used at any time. A TM is used for goods and a SM is used for services. No registration is required to use the TM or SM symbols.

Trademarks have been classified into 45 trademark classes, thirty-four covering goods and eleven covering services.

6.3 Trade secrets and know-how

Trade secrets are a form of IP that include formulas, processes, designs, patterns, or compilations of information. Trade secrets, by their definition, are not registered with any governmental entity. Instead, in order to be considered a trade secret: 1) the information must be information that is not known by the general public; 2) reasonable measures must be taken to keep the information secret; and 3) the information must provide economic benefit to the company because of its secrecy.

One advantage to trade secrets is that there is no expiration on trade secrets, as long as the information continues to provide an economic benefit and the company continues to take reasonable steps to maintain the secrecy of the information.

Trade secret protection is becoming more and more significant for businesses. Trade secret theft continues to increase, due to vulnerabilities from a cyber-attack or a rogue or unknowing employee. And technical innovation has made the exposure of trade secrets more likely than in the past.

Trade secrets also provide companies with significant business challenges. Many companies fail to identify trade secrets, and improper management of trade secrets makes it difficult to support a legal theft cause of action in the future. Additionally, trade secret theft leaves

companies exposed to the risk of significant enterprise value loss. Finally, few organizations have the means of capturing trade secrets for tax treatment.

6.4 Software and data

Software and data are generally unregistered forms of IP. Some forms of IP require registration with a government entity (such as patents), other forms of IP are granted rights automatically but can be registered for additional legal protection (trademarks and copyrights), and some forms of IP are not registered (trade secrets and know-how). Software can be protected by (1) patents, on the underlying methods implemented in the software that provide utility, (2) copyrights that protect the creative expression in the source code itself, and/or (3) trade secrets. Different parts of software even within the same software product may be protected by the three forms of IP above, though trade secrets and patents may not cover precisely the same information since they are mutually exclusive. Trade secrets must remain secret to be afforded protection, and patents require public disclosure.

Software refers to any source code written in a computer language that can be executed on a computer to perform a function. Source code is often kept secret by a company to ensure that others do not copy or steal the underlying algorithms and methods included in the source code. Some companies offer open-source software implementations as well, and while often free to use, these open-source software implementations usually impose obligations related to the products that include them, such as requiring that all of the resulting software in the product be open source.

Data includes any information used by a business to further their business goals. This information can include manufacturing processes, research and development, client and customer lists, client buying habits, software algorithms and programs, and genetic information.

6.5 Copyrights

A copyright is a form of IP that gives the copyright owner the right to print, publish, perform, film, or record their creative work. These rights also include the right to reproduce, make derivative works, distribute, and execute public performances of the copyrighted work. Copyright owners can allow others the right to do all of the above. The copyrighted work can be a literary, artistic, educational, or musical form. Examples of works that can be copyrighted include computer software, movies, songs, architecture, poetry, and novels.

Copyright protects original works of authorship, while a patent protects inventions. Inventions are not protected by copyright law, although the way in which they are expressed may be. Instead, a copyright protects the original expression of the idea and not the idea itself. A trademark protects marks that identify the source of the goods or services of one company and helps consumers distinguish them from those of other companies.

A copyright exists from the moment the work is created and fixed in a tangible form. Copyrights do not need to be published to be protected. To be protected by a copyright, the work must be fixed in a tangible medium of expression, such that it is perceptible either directly or with the aid of a machine or device.

Unlike trademarks, designs and patents, copyright do not currently need to be registered In the UK and most countries apart from the US where in order to bring a lawsuit for copyright infringement in the work must be registered with the US Copyright Office.

Not every instance of copying a work or a portion of a work is a copyright infringement. For example, the “fair use doctrine” allows some copying of limited portions of a copyrighted work in certain instances, such as commentary, news reporting, scholarship, criticism., and parody.

Copyrights have a long duration, in some jurisdictions lasting for fifty to one hundred years after the death of the creator of the work.

This guide has been prepared with the support of the team at Aon

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About Aon IP Solutions

The Business of IP®

Aon's team of more than 150 Intellectual Property experts brings a deep understanding of both mergers & acquisitions and intellectual property to develop uniquely tailored solutions that address both opportunity and risk within each deal.

We apply a comprehensive approach to intellectual property across a client's intellectual property portfolio by applying our three pillars of strategy, valuation and risk. Our clients are secure in knowing that their deals are managed by a team whose experience and global expertise are unsurpassed in the industry.

Aon plc (NYSE:AON) is a leading global professional services firm providing a broad range of risk, retirement and health solutions. Our 50,000 colleagues in 120 countries empower results for clients by using proprietary data and analytics to deliver insights that reduce volatility and improve performance.

Aon has developed tools to support companies and investors, such as:

- A proprietary IP analytics platform and processes to assess the quality of IP assets at pace and scale. This process evaluates the Coverage, Opportunity and Risk to the IP assets. With Coverage being the patent portfolio strength and alignment with the business, Opportunity being applicability to other markets or to enhance the IP portfolio, and Risk is risk to the validity of the IP assets.
- Sophisticated valuation techniques and innovation in Collateral Protection Insurance, which have resulted in increased possibilities to raise non-dilutive finance in the last 18 months.
- A Quality of IP Report to help support M&A processes. For both buyers and sellers, the feature narratives around technology companies and similar intangible-intensive firms have been disjointed and—consistently—missing a chapter. Aon seeks to complete the story; much as quality of earnings reports previously did for earnings' role in M&A transactions.

Further information

Learn more about Aon's Intellectual Property Solutions: *https://www.aon.com/m-and-a-transaction/intellectual-property.jsp*

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