

# The management of patent risk

Why proactive engagement costs less

November 2021

*Incorporating the findings of the Cipher Patent Risk  
Survey conducted in collaboration with IAM*

“Everyone knows that you need more prevention than treatment, but few reward acts of prevention. We humans are not just a superficial race, we are a very unfair one.”

From *The Black Swan, The Impact of the Highly Improbable*, Nassim Nicholas Taleb

**This report is inspired by *The Black Swan*. Taleb recounts a hypothetical story of a legislator prior to 9/11 who successfully enacts a law requiring locked doors on cockpits just in case terrorists choose to fly planes into buildings. This person is reviled by the industry for the increased cost and regulation, gets no statues built in his honour and is booted out of office.**

Patents protect products, prices and profits. Experts know that patents owned outside their own organisation pose an existential threat to each of these. Patents can prevent the sale or importation of products and impose crippling royalties and damages. If you don't own the right patents competitors will line up to steal your market share and the value of your intangible assets can dissipate into the ether.

While understanding patent risk involves dealing with significant uncertainty, the resemblance to Black Swan events ends there. 81% of patent owners report that they will face patent risk in the next two years and 40% report that the risk is inevitable. What's alarming is that 56% of patent owners only report on patent risk when there is a significant issue and 5% never report on patent risk.

This report is in three parts. Part 1 summarises the key findings of our global patent risk survey, conducted in association with IAM. Part 2 focuses on the actionable insight from the survey and extensive interviews with industry experts. Part 3 describes a risk management framework which has been adapted from the approach taken to the assessment of likelihood and severity of risk in many other areas of business risk management.

Overall, this suggests hidden danger. Whilst there is no shortage of patent expertise within organisations, it is only when disaster strikes that the patent news travels fast and upwards. This paints a misleading picture of patent risk as Black Swans – of events that are rare, unpredictable and unquantifiable. Nothing could be further from the truth.

**Nigel Swycher and Francesca Levoir, Cipher**

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*The abridged version of this article first appeared in IAM on 10 November on [www.iam-media.com](http://www.iam-media.com)*

# Key findings from the patent risk survey

The Cipher patent risk survey was conducted in August and September 2021 in association with IAM, the leading IP business media platform. Additional information about the survey can be found at the end of this Report. The key findings from the survey of patent experts are:

## 1 Patent risk is unavoidable for most patent owners, inevitable for many and generally not reported

81% of patent owners think that it is likely that they will have to deal with patent risk in the next two years, with 40% reporting that patent risk is inevitable (Figure 1).

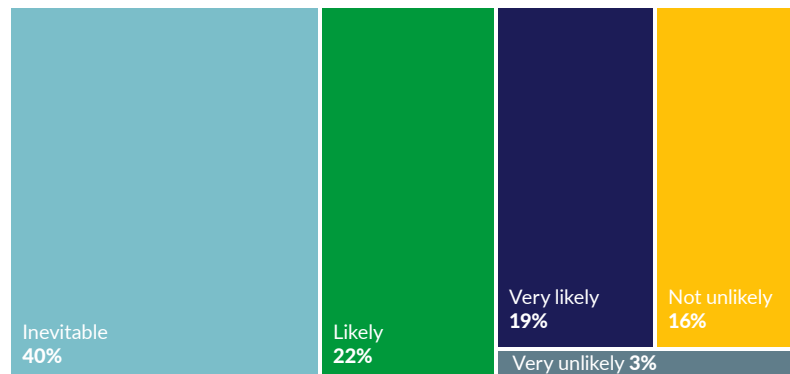
When asked how often patent risk is reported, the majority response was only when there is a significant issue (56%) with an additional 5% saying that they never report on patent risk (Figure 2).

## 2 Building a strong patent portfolio is the primary approach to patent risk mitigation, but is only part of an overall risk mitigation strategy

92% of survey respondents identified the building of a strong portfolio as the best way to mitigate patent risk. Other strategies include contracts with suppliers and customers (65%) and licences and cross-licences (61%) (Figure 3).

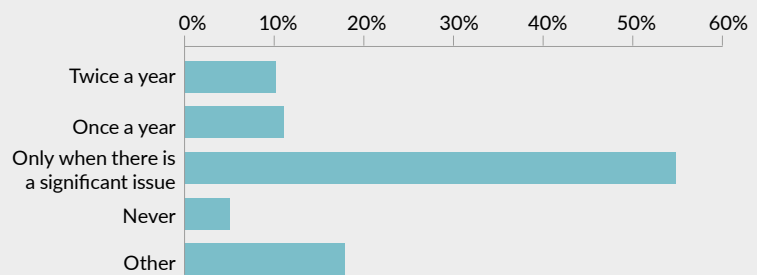
Figure 3A breaks down the responses by revenue, showing the different range of strategies as companies grow. Patent insurance, for example, is used primarily by smaller companies while licensing and cross-licensing only becomes common as companies get beyond \$100m in revenue.

**Figure 1** | How likely do you think it is that you will have to deal with a patent risk in the next 2 years?



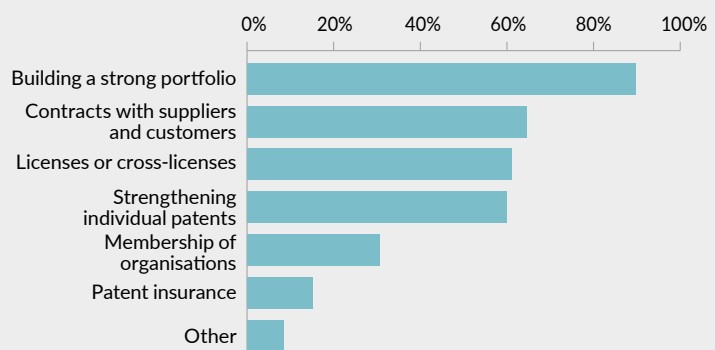
Source: Cipher Patent Risk Survey, 2021

**Figure 2** | How often do you report on patent risk?



'Other' responses included monthly, weekly and a range of ad hoc frequencies such as 'as requested'.

**Figure 3** | How do you mitigate patent risk?



Within 'Other' are FTO (freedom to operate searches), competitive intelligence (monitoring of third party patent filings and activity), offensive oppositions (including PTAB IPRs) and litigation.

Source: Cipher Patent Risk Survey, 2021

*"It is normal for patent risks not to be reported until there is a serious issue. This can make the patent risk assessment quite reactive and it is often conducted under huge time pressure."*

Christian Reinders, Chief IP Counsel, Dräxlmaier Group

Figure 3A | How do you mitigate patent risk? (split by organisation revenue)

| Revenue       | Building a strong portfolio | Contracts with suppliers and customers (indemnities and exclusions) | Licenses or cross-licenses | Strengthening individual patents | Membership of organisations (e.g. LOTNetwork, AST, RPX) | Patent insurance | Other |
|---------------|-----------------------------|---|----------------------------|----------------------------------|---|------------------|-------|
| <\$100M       | 83%                         | 46%   | 33%                        | 63%                              | 29%   | 42%              | 13%   |
| \$100M-\$999M | 92%                         | 75%   | 75%                        | 58%                              | 8%  | 0%               | 8%    |
| >\$1BN        | 96%                         | 69%   | 68%                        | 60%                              | 38%   | 7%               | 7%    |

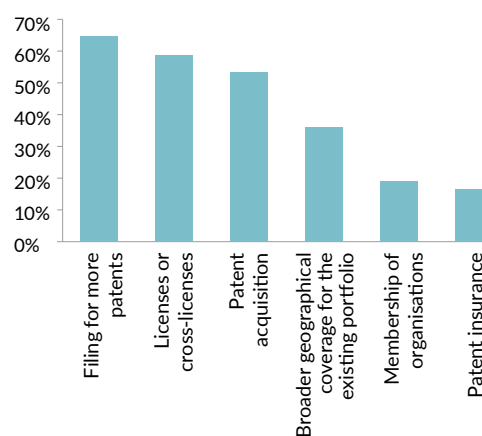
Source: Cipher Patent Risk Survey, 2021

There was no shortage of contenders when asked how patent owners would deploy additional patent budget to reduce patent risk (Figure 4). While organic growth of own portfolio and licensing both feature heavily, there is widespread recognition of the importance of patent acquisition on the secondary market (53%).

**75%** of mid sized companies use licenses or cross-licenses to mitigate risk

There are material differences when the data is analysed by sector (Figure 4A). This includes the widespread use of licensing and cross-licensing, the strong preference for organic growth of patent portfolios in Healthcare and a greater preference for patent acquisition for Software companies.

Figure 4 | If you secured additional budget, how best would it be deployed to reduce patent risk?



Source: Cipher Patent Risk Survey, 2021

Figure 4A | If you secured additional budget, how best would it be deployed to reduce patent risk? (split by sector)

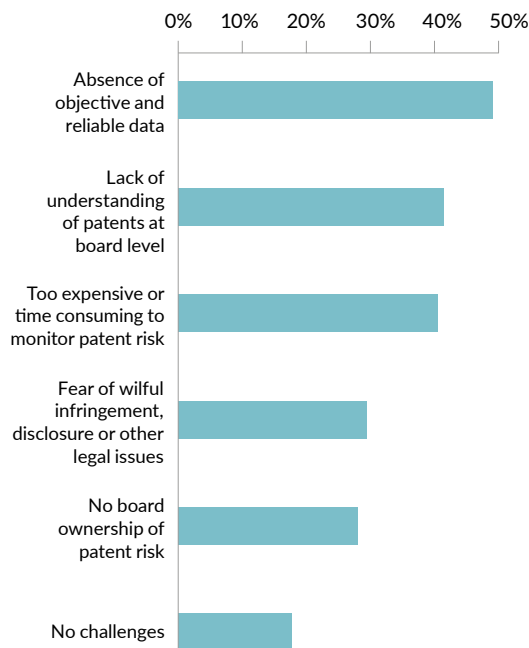
| Patent portfolio size | Filing for more patents | Licenses or cross licenses | Patent acquisition | Broader geographical coverage for the existing portfolio | Membership of organisations | Patent insurance |
|-----------------------|-------------------------|----------------------------|--------------------|--|-----------------------------|------------------|
| Automotive            | 67%                     | 67%                        | 67%                | 50%  | 33%                         | 17%              |
| Healthcare            | 90%                     | 60%                        | 60%                | 60%  | 0%                          | 10%              |
| Industrials           | 64%                     | 64%                        | 64%                | 36%  | 0%                          | 9%               |
| Software              | 67%                     | 33%                        | 83%                | 33%  | 50%                         | 17%              |
| Technology            | 58%                     | 58%                        | 58%                | 33%  | 0%                          | 18%              |

Source: Cipher Patent Risk Survey, 2021

**3 The main challenges when communicating patent risk include the absence of objective and reliable data and the lack of understanding of patents at board level**

Almost 50% of survey respondents highlight the absence of reliable data as the main challenge when communicating patent risk (Figure 5). Previous Cipher Reports have identified the same issue in other areas of patent strategy (refer to *Dispelling the benchmarking myth*, March 2021). The other top responses are the expense and time involved in monitoring patent risk (40%) and the lack of understanding of patents at board level (also 41%).

**Figure 5 |** What are the challenges you face in communicating patent risk?



Source: Cipher Patent Risk Survey, 2021

Figure 6 includes the survey responses on reporting of patent risk. It is striking that patent risk is rarely reported outside the IP and Legal team, with the Chief Risk Officer and CFO nowhere to be seen. The exception being for companies with less than a thousand patents, where the CEO is actively involved. This may be closely connected to rapid revenue growth companies who are particularly exposed to patent risk, and where mitigating this risk is a priority.

**Figure 6 |** Who do you report patent risk to?

| Patent Portfolio Size | General Counsel | Head of IP/Head of Patents | Board | CTO | CEO | Chief Risk Officer | CFO | No-one |
|-----------------------|-----------------|----------------------------|-------|-----|-----|--------------------|-----|--------|
| Less than 250         | 19%             | 32%                        | 10%   | 3%  | 23% | 3%                 | 3%  | 6%     |
| 250-999               | 23%             | 35%                        | 8%    | 8%  | 23% | 4%                 | 0%  | 0%     |
| 1,000-5,999           | 25%             | 38%                        | 16%   | 13% | 3%  | 0%                 | 0%  | 6%     |
| More than 6,000       | 11%             | 50%                        | 17%   | 6%  | 6%  | 6%                 | 0%  | 6%     |

Source: Cipher Patent Risk Survey, 2021

There are some sector variations, the most notable being board reporting of patent risk in both Industrials and Software companies (around 28%) with 14% of Automotive respondents saying that patent risk is communicated to no-one (Figure 6A).

**Figure 6A |** Who do you report patent risk to? (split by sector)

| Industry Sector | General Counsel | Head of IP/Head of Patents | Board | CTO | CEO | Chief Risk Officer | CFO | No-one |
|-----------------|-----------------|----------------------------|-------|-----|-----|--------------------|-----|--------|
| Automotive      | 29%             | 29%                        | 0%    | 29% | 0%  | 0%                 | 0%  | 14%    |
| Industrials     | 27%             | 27%                        | 27%   | 0%  | 18% | 0%                 | 0%  | 0%     |
| Healthcare      | 10%             | 60%                        | 10%   | 10% | 10% | 0%                 | 0%  | 0%     |
| Software        | 43%             | 14%                        | 29%   | 14% | 0%  | 0%                 | 0%  | 0%     |
| Technology      | 29%             | 32%                        | 7%    | 7%  | 12% | 2%                 | 2%  | 7%     |

Source: Cipher Patent Risk Survey, 2021

**50%**

of respondents face challenges with accessing reliable data when communicating patent risk

**4** The majority of patent owners have a risk matrix or framework but only use it when there is a significant issue

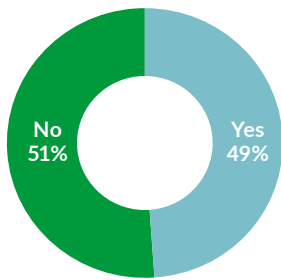
49% of patent owners report that they have a risk matrix or framework for communicating patent risk (Figure 7).

Survey responses indicate that risk reports primarily focus on own and competitor portfolios (over 80% in each case), with patent disputes and litigation closely behind (68%). Legal & Regulatory changes scores low at the aggregate level (34%) (Figure 8). For Healthcare and Software companies this is much higher (50%) (Figure 8A).

**49%**

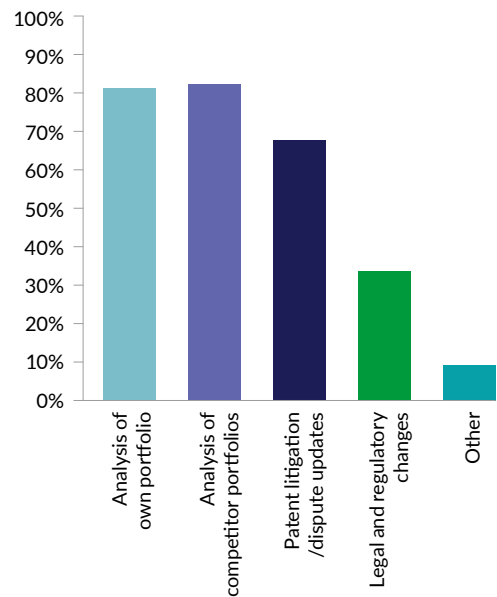
of patent owners report that they have a risk matrix or framework for communicating patent risk

**Figure 7** | Do you have a risk matrix or other risk framework for communicating patent risk?



Source: CIPHER Patent Risk Survey, 2021

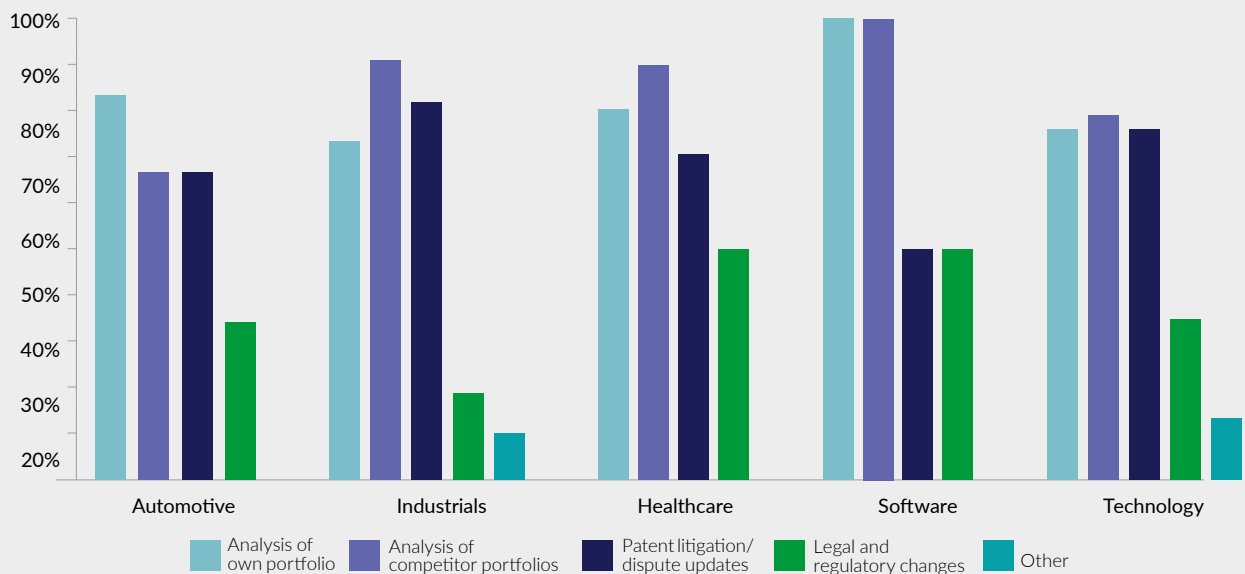
**Figure 8** | What do you include in your patent risk report?



'Other' responses refer to both quantitative and qualitative assessment of particular risk with multiple references to mitigation strategies.

Source: CIPHER Patent Risk Survey, 2021

**Figure 8A** | What do you include in your patent risk report?



Source: CIPHER Patent Risk Survey, 2021

## Recognising the common ground

The management of risk is a core responsibility of boards and key to ensuring the success of an organisation. This discipline has been formalised in virtually every area of business and specifically cybersecurity, information technology, fixed assets (notably buildings), people (everything from health to personal injury) and product liability. The list is long, but generally does not include intellectual property and specifically patents.

With technology and innovation accounting for the bulk of an organisation's value, more questions are being asked by boards (and shareholders) about patent risk. Logic suggests that those who proactively manage patent risk are better able to mitigate this risk, with the potential to dramatically decrease the level of risk and increase the ability to react.

*“The challenge is to get the patent lawyer who wants to eliminate risk to communicate with the business who wants to balance the risk with the potential reward.”*

Bowman Heiden, Visiting Professor at University of California, Berkeley and Co-Director at Center for Intellectual Property, Gothenburg

There is, however, a broad measure of agreement about what constitutes patent risk and the range of strategies that mitigate this risk. Where things seem to break down is the communication of patent risk.

### Classification of patent risk

Patent risk can be defined as the assessment and quantification of the uncertainty and undesirable outcomes associated with the ownership of patents and use of patented technology. Patent risk can be broken down into a number of distinct categories:

- **Intrinsic risk** – the reality that not every granted patent is valid and enforceable. It is important to remember that this risk applies equally to your patents and those owned by others.
- **Environmental risk** – the additional uncertainty caused by the constant change of patent laws around the world. In the US, for example, the increased difficulty in securing injunctions and the uncertainties around the enforceability of software patents was perceived by many to devalue US innovation.
- **Infringement risk** – the risk that an organisation infringes patents owned by others should be broken down further to include:

- **Innovation risk** – the inherent uncertainty of bringing any new product or service to market and commonly when competitors seek to identify potential infringement,
- **Assertion risk** – reflecting the shift towards portfolio licensing, and away from disputes over individual patents. This is a distinct category within infringement risk and commonly resolved without litigation, and
- **NPE risk** – non-practising entities (NPEs) have been around for over 20 years, and while the legal environment has curtailed the worst excesses of this risk, it remains a permanent feature of the patent risk landscape. Immune from counter-assertion, NPEs are generally considered to be a different category of risk.

This classification is derived from categories of patent risk identified in Edison in the Boardroom (Suzanne Harrison and Patrick Sullivan). While this classification is neither prescriptive nor exhaustive, it is accepted that classification sits at the heart of consistent assessment and better communication.

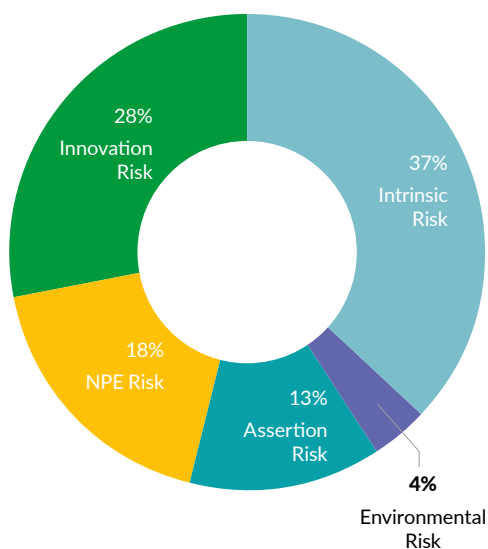
While these categories of patent risk are well understood across sectors, the survey highlights that they are not equally important. Figure 9 shows the main drivers of patent risk at the aggregate level. At the sector



level infringement risk stemming from new product development was the primary risk for 90% of healthcare respondents, and in the technology sector NPE risk was the primary risk for over 30% of respondents.

## Mitigation of patent risk

**Figure 9** | What is your primary patent risk?



Source: Cipher Patent Risk Survey, 2021

The survey responses provide a guide to the mitigation strategies adopted (Figure 3). It is also important to understand how the various mitigation strategies work alone and in combination to mitigate the various categories of patent risk:

**Building a strong portfolio** – 92% of respondents say this is part of a risk mitigation strategy. It is also the top answer for risk reports and how respondents would deploy additional budget. What constitutes a “strong portfolio” differs significantly across sectors, a topic which has been explored in previous Cipher Reports<sup>1</sup>.

### Contracts with suppliers and customers

– it is the aim of most lawyers to get the broadest patent indemnities from suppliers and to negotiate comprehensive exclusions of liability (or liability caps) with customers. As a strategy, this featured in 65% of responses. A possible explanation of this relatively low level of response

is the delineation of responsibilities between the patent team (responsible for portfolio strategy) and those parts of Legal responsible for contracts with the supply chain.

**Membership of organisations** – this includes LOT Network and RPX, membership of which mitigates NPE risk (recognising that your own portfolio counts for nothing against an NPE that has no relevant business for the purposes of counter-assertion). Open Invention Network (OIN) is also relevant in this context with its specific focus on open source risk.

**Patent acquisition** – acquiring patents can help in two ways. First, it can strategically bolster your portfolio for licensing and cross-licensing. Secondly, it removes assets from the market which otherwise may end up in the hands of NPEs.

Data gathered by AST highlights the scale of the market: “About 200,000 patents in about 12,000 deals involving over 8,000 buyers and sellers have been transacted on the secondary market over the last 10 years, with asking prices exceeding \$40B. This is increasingly providing NPEs with ammunition, but is also an opportunity for operating companies to remove risk from the market,” states Russ Binns, CEO, AST.

**Licences and cross-licences** – is one of the most common strategies for neutralising patent risk for those with defensive patent strategies. This is the third most common mitigation strategy with 61% of responses. This may also understate the importance of this strategy, as there are many sectors where détente is maintained because of the mutual respect (and prospect of mutually assured destruction) flowing from strength of both parties’ patent portfolios, but stopping short of formal cross-licensing.

**Strengthening individual patents** – there are a few sectors (notably pharma and biotech) where products and profits live or die on the back of an individual patent. The strategies for protecting the key inventions and avoiding conflicts with others have been refined over decades.

<sup>1</sup> A detailed description of the economic models used for calculating the relationship between investment in patent portfolios and risk mitigation are the subject of *Beyond Portfolio Optimisation: understanding the connection between patent cost and value*, IAM, Summer 2020 and *Pulling back the Curtain: Calculating the Return on Investment of patent portfolios*, June 2021



**Patent insurance** – patent risk has all the characteristics of an insurable risk. It is a risk faced by the majority of companies, but does not often have catastrophic consequences. The survey strongly suggests that insurance is largely being used by owners with smaller revenues (42%) (Figure 10).

There is scope for the market to grow, with reassurance from Erik Alsegard, Intellectual Property Director Financial and Professional Risks, AJ Gallagher, *“IP insurance is designed to handle worse case scenarios. Where manageable premiums paid by the many create a pool to cover the outsized losses incurred by the few.”*

There is a cost associated with all these mitigation strategies and a benefit that can be modelled. Mitigation may come in the form of reduced likelihood or reduced severity. In most situations, it is not possible at any reasonable cost to eliminate a category of patent risk entirely.

The survey paints a dramatic backdrop of a world where patent risk is pervasive but where less than half report regularly (Figure 2) or have a reporting matrix or framework (Figure 7). The catalogue of challenges facing patent teams when communicating patent risk is long (Figure 5) including the absence of data and the time consuming nature of monitoring patent risk.

It is easy to see how these obstacles feed directly into a lack of understanding and ownership of patent risk at board level. This is the self-perpetuating loop that needs to be broken.

Encouragement comes from one Head of IP at a major US bank who says: *“It is an antiquated perspective to think that patent risk is too complex for boards to consider. Just like cybersecurity or environmental risk, they are somewhat new but business critical.”*

**Figure 10** | How do you mitigate patent risk? (by size)

| Revenue       | Building a strong portfolio | Contracts with suppliers and customers (indemnities and exclusions) | Licenses or cross-licenses | Strengthening individual patents | Membership of organisations (e.g. LOTNetwork, AST, RPX) | Patent insurance | Other |
|---------------|-----------------------------|---|----------------------------|----------------------------------|---|------------------|-------|
| <\$100M       | 83%                         | 46%   | 33%                        | 63%                              | 29%   | 42%              | 13%   |
| \$100M-\$999M | 92%                         | 75%   | 75%                        | 58%                              | 8%  | 0%               | 8%    |
| >\$1BN        | 96%                         | 69%   | 68%                        | 60%                              | 38%   | 7%               | 7%    |

Source: Cipher Patent Risk Survey, 2021

### Communication of patent risk

One of the most striking findings from the survey relates to reporting of patent risk (Key Finding 1). We can think of no other area where a known risk is not reported to the board. An analogy freely used in interviews with patent experts is an organisational preference for dealing with fires, rather than engagement with the benefits of risk mitigation strategies such as sprinkler systems or fire extinguishers.

*“It can be a problem if there is too much focus on the fire and not enough on fire prevention.”*

Dieter Joseph, Senior Director, Infineon

## Suggested framework for patent risk

There is an absence of best practice in the area of patent risk management. In this section we suggest the use of a patent risk matrix, along the lines that is used by risk managers in other areas of the business. This provides a framework in which all relevant risks can be positioned relative to each other in a way that both facilitates communication and helps with prioritisation and budget allocation. Adoption and consistent use also enhance the ability to track trends and priorities over time.

### What is a risk matrix?

A common way business risks are assessed is to identify all events that could impact that risk area and then score each event by combining both likelihood of occurrence and impact of the consequences.

Risk can be quantified using the following expression:

$$Risk = Likelihood \times Severity$$

By scoring each independently on a scale of 1-5, risk can be represented in a risk matrix, illustrated on the right (Figure 11).

Using a hypothetical technology company, each category of patent risk can be analysed and scored. This approach enables each of the patent risks to be placed within the matrix (Figure 11A).

Drilling down into a couple of these hypothetical scores:

- **Intrinsic Risk** scores 6, being the result of risk that is Possible (the validity of patents are frequently challenged) but with a Minor impact (reflecting that owners often have very many patents relating to a single technology), and
- **Assertion Risk** scores 15. For many technology companies with a defensive patent strategy licensing and cross-licensing is a common way to mitigate risk from owners of large relevant portfolios<sup>2</sup>. So 5 for Likelihood (almost certain). The Severity can be moderate to major depending on prevailing royalty rates and the relative position of the two companies. In this example, the Severity has been scored 3 for Moderate – hence a combined score of 15.

Figure 11 | A typical risk matrix

|            |                     | Severity        |               |               |               |                   |
|------------|---------------------|-----------------|---------------|---------------|---------------|-------------------|
|            |                     | Negligible<br>1 | Minor<br>2    | Moderate<br>3 | Major<br>4    | Catastrophic<br>5 |
| Likelihood | 5<br>Almost certain | Moderate<br>5   | High<br>10    | Extreme<br>15 | Extreme<br>20 | Extreme<br>25     |
|            | 4<br>Likely         | Moderate<br>4   | High<br>8     | High<br>12    | Extreme<br>16 | Extreme<br>20     |
|            | 3<br>Possible       | Low<br>3        | Moderate<br>6 | High<br>9     | High<br>12    | Extreme<br>15     |
|            | 2<br>Unlikely       | Low<br>2        | Moderate<br>4 | Moderate<br>6 | High<br>8     | High<br>10        |
|            | 1<br>Rare           | Low<br>1        | Low<br>2      | Low<br>3      | Moderate<br>4 | Moderate<br>5     |

*There is no hard and fast rule as to whether this should be a 3x3 or a 7x7, but 5x5 is common. The scores are Likelihood x Severity (25 being a risk which is both certain and catastrophic).*

Figure 11A | Patent risk matrix for a hypothetical technology company

|            |                     | Severity        |               |               |            |                   |
|------------|---------------------|-----------------|---------------|---------------|------------|-------------------|
|            |                     | Negligible<br>1 | Minor<br>2    | Moderate<br>3 | Major<br>4 | Catastrophic<br>5 |
| Likelihood | 5<br>Almost certain |                 |               | Assertion     |            |                   |
|            | 4<br>Likely         |                 | Environmental | NPE           |            |                   |
|            | 3<br>Possible       |                 | Intrinsic     |               |            |                   |
|            | 2<br>Unlikely       |                 |               |               |            |                   |
|            | 1<br>Rare           |                 |               |               | Innovation |                   |

<sup>2</sup> 75% of patent owners report that ownership of a well balanced portfolio reduces the risk of patent litigation (Ciper Report on Portfolio Optimisation, March 2020)

Developing a consistent framework for analysing patent risk solves a number of identified problems but is not without its difficulties.

### Difficulties with this approach

There are a number of possible difficulties with this approach:

**Every sector is different:** the primary risks facing companies in the Healthcare sector are very different to this in the Technology sector. The risk matrix accommodates this within the scoring system, such that for a pharmaceutical company Intrinsic and Innovation risk will both be in the red zone scoring highly on both scales.

**Risk and severity are non-linear:** it is true that “catastrophic” is not 20% worse than major<sup>3</sup>. The table below provides a guide:

|   | Likelihood            | Severity   |
|---|-----------------------|--|
| 1 | Every 10 years        | No impact on IP budget                                 |
| 2 | Every 4-9 years       | Not material to profitability of a product or division |
| 3 | Every 2-3 years       | Material impact on quarterly or annual results         |
| 4 | Every year            | Requires a material change in corporate strategy       |
| 5 | Multiple times a year | Fatal to viability of the organisation                 |

This is for illustrative purposes and should be calibrated to meet individual requirements.

It is important to stress that it is not only the risks in the “red zone” that require consideration. The definition of a Black Swan specifically includes events which are rare and catastrophic. While there may only have been a handful of \$2B damages awards in recent times, the size and scale of patent risk has to be understood by the board.

We are confident that all organisations can calibrate scores using this broad brush approach.

*“It’s the lawyer’s curse that we are trained to seek precision and perfection. Risk management requires models based on estimates and imperfect data – and we need to get more comfortable with that.”*

Jared Engstrom, Senior Director, IP Strategy, CrowdStrike

There is some suggestion that lawyers may struggle with modelling of this sort. The solution implemented by many is to diversify the composition of the teams.

Tim Alexander Oelmann, Head of Business IPR Management, Deutsche Telekom believes that “Success depends on having the right skills in the right roles. In the IPR teams, our interdisciplinary experience comes from legal, businesses administration, engineering and market research.”

**Quantification is not possible:** just because a risk is known is not the same as saying that it is quantifiable. Risk management is about predicting the future, which is notoriously difficult. Comfort comes in three forms. First, safety in numbers – all other parts of the business are taking this approach. Secondly, you are not being asked to quantify, but to describe and put in context which is not the same thing. Thirdly, there is an increasing amount of strategic patent intelligence which puts analytics within reach.

David Kappos, Partner, Cravath observes that “There’s a lot of data available and you don’t need to quantify precisely – it’s sufficient to have an approach that enables the risk to be classified into buckets.”

This is how insurance companies and actuaries have been operating for decades. They have no idea whether a specific car will have an accident or a building will burn down, but data enables them to price for risk.

**Wilful infringement or other legal issues:** almost 30% of respondents refer to this challenge (Figure 5), with the concern being that communicating too much information about known patent risks might make matters worse down the line (for example, triple damages). The overwhelming view of those interviewed characterise this as a weak excuse, standing in the way of empowering boards to do their job.

Erik Oliver, Partner, Richardson Oliver Law puts this succinctly: “The risk of wilful infringement is not an excuse for poor communication.”

<sup>3</sup> The Black Swan, The Impact of the Highly Improbable, Nassim Nicholas Taleb provides a comprehensive discussion of this reality

## Prevention is better than cure

Patent risk has many moving parts, all of which constantly change size, shape and direction. At a time when it is intangible assets that make up the bulk of enterprise value, it is a boardroom priority to understand the risks facing the organisation and to ensure that appropriate resources are deployed to manage and mitigate that risk.

The fact that patent risk is generally only reported when there is a significant issue is the root cause of the problem. It forces management to be reactive, inhibits them from acquiring the necessary grounding in a complex area and paints a wholly negative view of patents. The consequences are often the making of a poor business decision, where the tendency to put out the fire prevents any sensible consideration of what could have been done to avoid it.

Matt McBrien, Head of Patents, BAE Systems observes that *“The greatest risks are the ones you address too late – the earlier they are addressed the easier they are to resolve.”*

*“We have a counter-assertion readiness programme that proactively removes risk and proactively prepares for risk.”*

Gilbert Wong,  
Associate General  
Counsel, Patents  
at Facebook

In contrast, those who have successfully implemented frameworks for proactive communication of patent risk report high levels of understanding at board level. Perception changes from patents as a cost, to an appreciation of the return on investment (ROI) of patents<sup>4</sup>.

This facilitates the securing of support for investment in alternative patent strategies such as defensive aggregation, industry alliances and patent acquisition.

Reflect on Taleb's hero who mandated enhanced cockpit security before the fact. We are confident that with better communication of patent risk, and improved understanding at board level, those who directly contribute to the health and stability of the business will receive a hero's welcome.

*Nigel Swycher, CEO and Francesca Levoir, co-host of Cipher Vision and head of marketing, Cipher, London. Survey analysis and interviews by Christina Angelou, James Watson, Chris Berry and Kacper Gorski.*

## Action Plan

This report advocates for a structured approach to the management of patent risk including:

- **Classification** – identification of the main areas of risk such as Intrinsic, Environmental, Innovation, Assertion and NPE risk. Some may not be relevant and risks will vary by business area and over time. Consistency and adaptability are equally important.
- **Framework** – the risk matrix is well understood and works well for risks that merit calibration by both Likelihood and Severity. This enables assessment of both imminent risk and those that may need to be addressed in the medium to long term.

- **Mitigation** – identification of available mitigation strategies, with transparency around both the cost and benefit (risk reduction).
- **Communication** – regular reporting to the board. Reporting only when there is a significant issue prevents executives from doing their job.

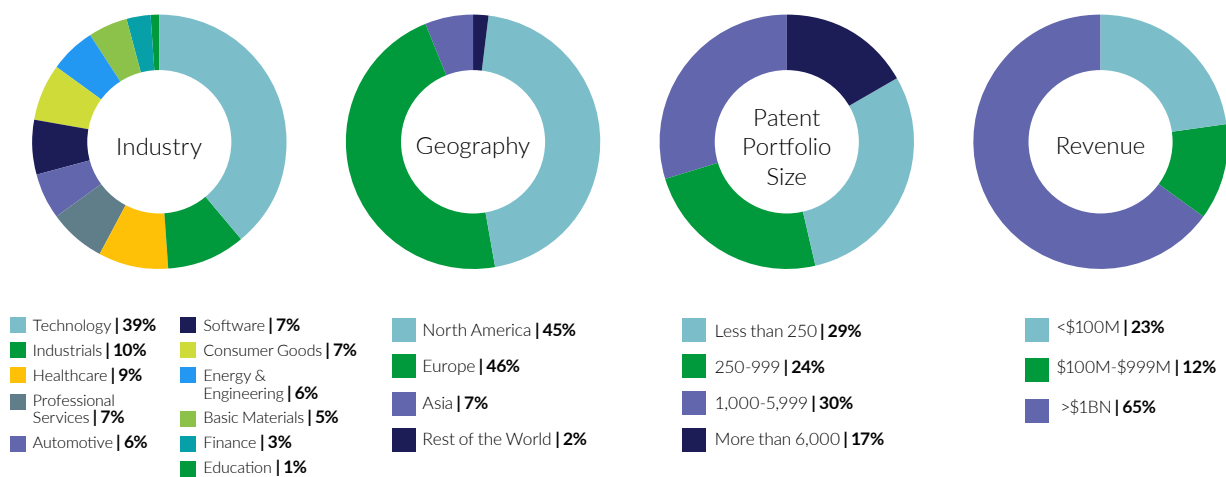
There are significant benefits from an approach of this sort. First, it provides a holistic understanding of the value of patents, breaking down silos that often develop across businesses. Secondly, it changes the perception of patents from a cost or problem to a direct contributor to the success of the organisation. Most importantly, it enables the business to be proactive rather than reactive, which simply makes sense.

<sup>4</sup> This calculation is discussed in *Pulling Back the Curtain: Calculating the Return on Investment of Patent Portfolios* (Chan, Harris, Liu and Swycher, June 2021)

## About the survey

This report is based on the first global survey on the quantification, mitigation and communication of patent risk. The survey was conducted between August and September 2021. Survey respondents are predominantly from the US and Europe (91%) with 62% of respondents having over 16 years of IP experience and 47% of respondents being Heads of IP or Patents. The vast majority of sectors are

represented with 39% in Technology. The survey responses are from a reasonable distribution of owners of both large and small portfolios. Cipher is also grateful for the many survey participants who provided additional information in interviews. While some of these contributions are reflected in attributed quotes, we are grateful for all of the additional contributions.



Total number of respondents = 122

## About Cipher

Cipher enables the rational understanding of patents by providing the patent intelligence required by IP teams to support their strategic patent decisions and communicate the value of patents both internally and externally. No more manual reviewing and tagging of patent as Cipher uses machine learning to automate the analysis. By using your view of the key technologies, Cipher is able to design and build your custom taxonomy.

With Cipher you can optimise your portfolio, gather competitor intelligence, model cross licensing, monetise your portfolio, manage your budget, conduct due diligence, tackle inbound patent assertion and benchmark your portfolio.

**Dan McCurdy,**  
CEO, RPX

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## Patent Risk in Context

### Episode 7

Unleashing the strategic value of patents