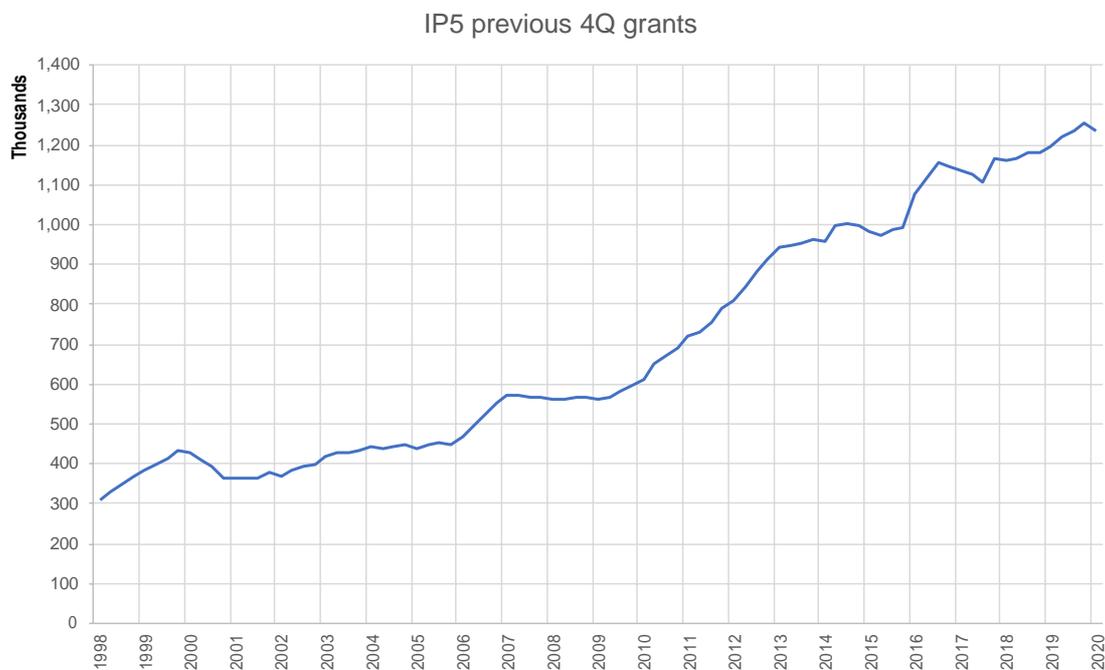


COVID 19 - Mitigating the Impact of Patent Budget Cuts in Recession

Patenting has grown exponentially over the last 20 years. Over the same period, we have endured two recessions. The first in the period between March 2000 and October 2002, where stocks lost \$5 trillion in market capitalisation (the bursting of the “dot-com bubble”). The second between October 2007 and March 2009, where the Dow Jones Industrial Average exceeded 14,000 points. By March 2009 it reached a trough of around 6,600, the result of the global financial crisis (GFC). The chart below shows the growth of patents over the period from 1998-2020, across US, Europe and Asia.

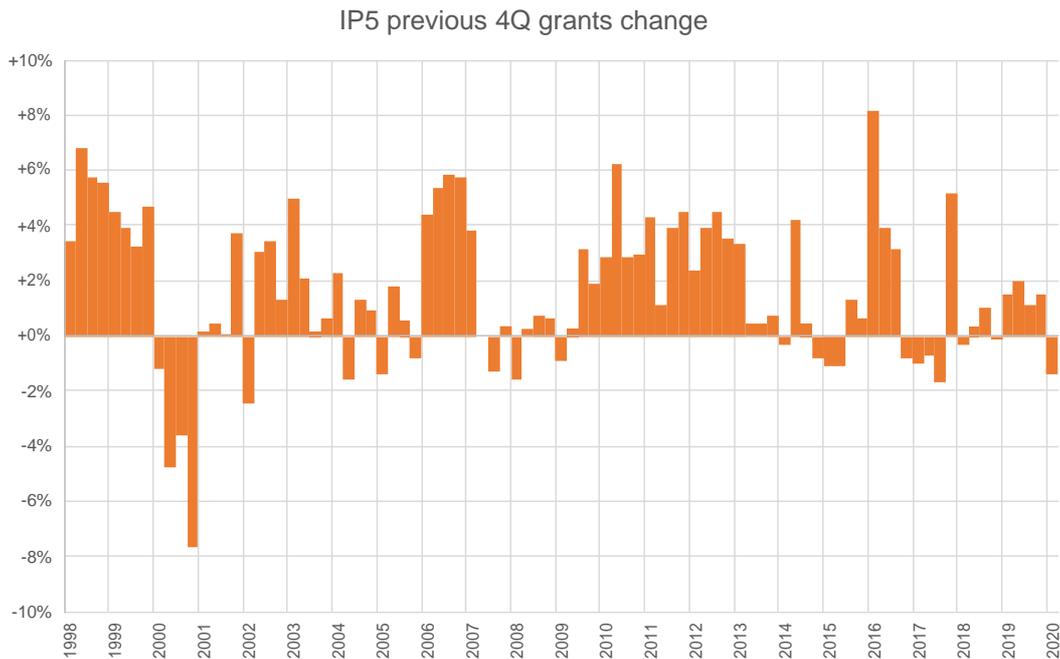
Figure 1: Growth in patents over the last 20 years



Source: Cipher. IP5 includes US, EPO, China, Japan and Korea

This tells a story of consistent growth, but not impervious to recessions. The impact is easiest to see by charting change in patent grants over time (Figure 2) with discernible dips that coincide with the recessions.

Figure 2: Change in patent grants over time



Source: CIPHER

In this paper, we seek to resolve the conundrum of exponential growth in patenting and the need to reduce patent budgets.

Why does the patent population continue to grow?

The last 20 years spans the end of the third industrial revolution to the beginning of the fourth, often referred to as Industry 4.0. This same period has accelerated the relevance of patents from pharma and telecoms to all sectors. Now it's intangible assets that command the vast majority of enterprise value, and intellectual property that differentiates those who have a protectable market position from the "me-toos" destined for extinction or obscurity.

There's also an international dimension. Many of the largest patent owning organisations are in China, Korea and Japan. Whilst each of these regions are very different from a patent strategy perspective, the fact that there are now more Chinese applications than US and Europe combined has acted as a massive global accelerator.

Patents in the era of Coronavirus

The recession triggered by Coronavirus feels different. It's ubiquitous, impacting all sectors across all regions. The dot-com bubble had a well-defined epicentre of over-valued tech stocks, and the GFC was a banking crisis, albeit with wide ranging ramifications. However, seen through a different lens, the last two recessions were the result of hype and greed, whilst this time round the crisis is not linked to any fundamental flaws in the economy.

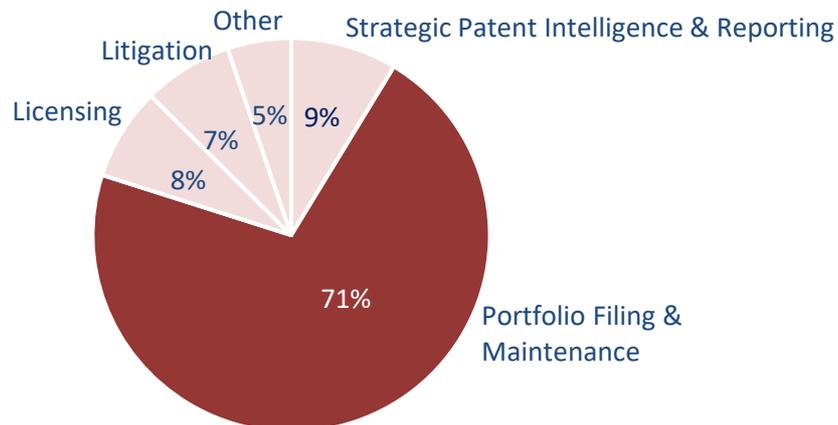
What we do know is that all businesses react the same way in times of crisis - the conservation of cash. This at a time when over \$40 billion is spent on obtaining and maintaining patents each year, reason in itself for CFOs to carefully scrutinise patent budgets. Patent owners are already reporting that they are being told to cut patent budgets by up to 20%.

When patent teams are forced to respond to budget cuts

The recent *Cipher Report on Portfolio Optimisation (March 2020)* confirms that over 70% of patent budgets are committed to new patent filings and portfolio maintenance.

Figure 3: Patent budget allocation

What percentage of your patent budget is spent on:



Source: *Cipher How Many Patents are Enough?* survey

This means that achieving any meaningful savings is textbook Morton's Fork - choosing between two equally unpleasant alternatives i.e. stopping filing for new inventions or abandoning existing patent rights. It's worth taking a closer look at these options:

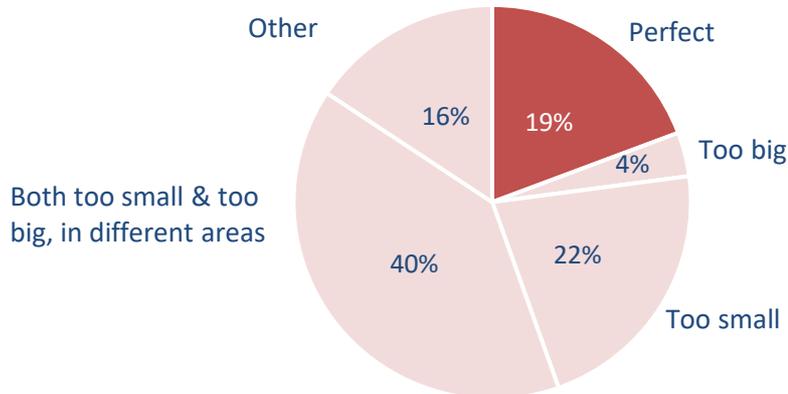
- Stop new filings - companies have filing targets and reducing this number will throttle short term spend. Where the axe falls is both random and irreversible. Random because the Invention Disclosures that get dropped are those that are simply up for consideration (and ignore strategic considerations). Irreversible because absent time travel, you can't reclaim your earlier priority date.
- Abandon existing patent rights - this knife can fall on applications or grants, and this road is well travelled e.g. abandon applications which are unlikely to succeed, cancel patents which are past their sell-by date (e.g. too old) or in non-core territories. Again, the quest for short term savings randomises the decision. There is a natural instinct to focus on bills that fall due rather than patents that may have much less value, but are sleeping quietly.

The role of Strategic Patent Intelligence (SPI) Models

Only 19% of companies report that their portfolio is the right size (source: *Cipher How Many Patents are Enough?* survey). Even without a recession, this is reason enough to review areas where your patents are not delivering value.

Figure 3: Portfolio optimisation

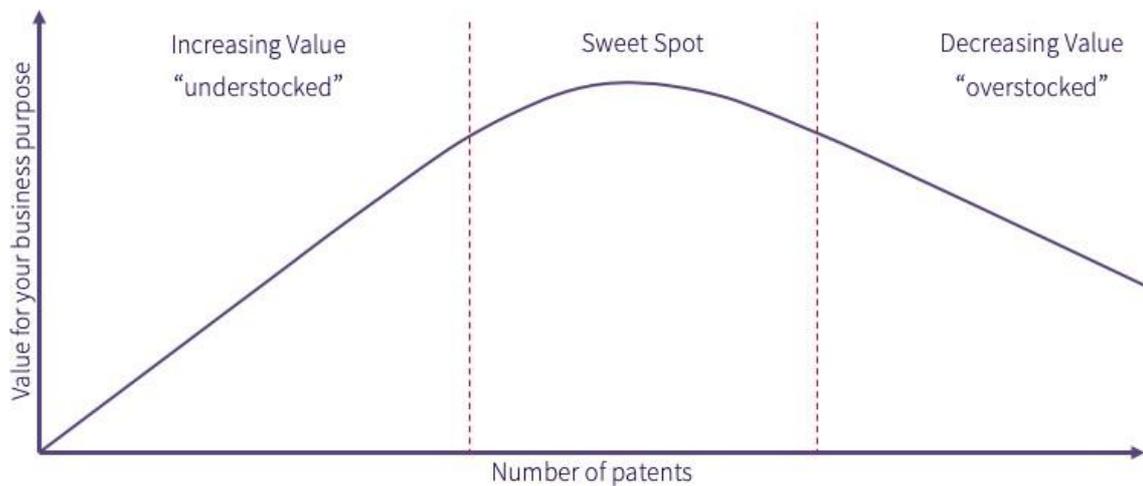
Do you think that your organisation's patent portfolio is:



Source: CIPHER How Many Patents are Enough? survey

Cipher works with companies to develop economic models that help communicate rational and objective strategies that avoid the dilemmas associated with short term decision making. The starting point is accepting that you are likely to be in the 81% of companies whose portfolio is too big, too small or both (in different places).

Figure 4: The patent value curve

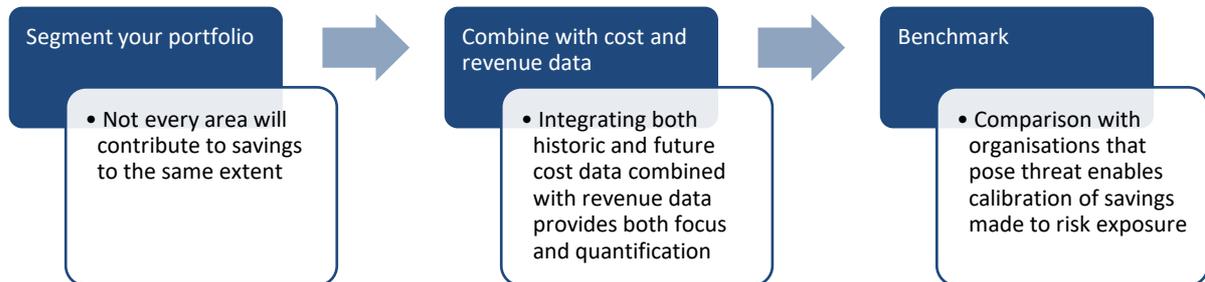


This value curve represents the reality that for any given portion of a portfolio, it will be understocked, in the “sweet spot” (the “right-size”) or overstocked. SPI models use an industry accepted approach to combining patent and revenue data. This is particularly well suited for those organisations whose strategy is defensive, namely to neutralise threats from other patent owners.

Holistic Portfolio Assessment - How Cipher can help

Using SPI models enables you to identify areas of “over-stocking”. This is where savings should be made with limited downside. We have outlined below a number of approaches to modelling,

which vary in levels of sophistication. They all have one thing in common - holistic portfolio assessment.



Isolation testing

You can test your portfolio against your own revenue and profitability. It is common for this to identify a disproportionate part of the portfolio that is protecting a business which is neither growing or making a substantial contribution to revenue (or profits). Cipher's ability to cluster portfolios and combine with its cost forecasting data, supports this approach out of the box. Your revenue data will be readily available internally.

Market testing

This is similar to *Isolation Testing* but compares to other owners of similar portfolios. This can be particularly helpful when looking for objective evidence to support the narrowing of geographical scope or earlier lapsing of granted patents. Once again, including third party revenue factors in proportionality.

SPI models

SPI models are similar, but with increased sophistication to facilitate communication outside IP teams and to provide a repeatable approach over time. SPI models require:

- *Accuracy* - mapping patents to technologies manually is slow, expensive and prone to inaccuracy. Cipher's automated approach to classification solves this problem and its approach to supervised machine learning has been independently tested for accuracy¹.
- *Threat lists* - aligning your portfolio with your strategic objectives requires identification of the companies that pose a threat to your business. It is to be expected that this list may be different by business line.
- *Revenue* - integration of revenue data by product is essential if you go down this route. Only by mapping your patents to third party impacted revenue, and vice versa can you establish whether your portfolio is actually reducing patent risk.

¹ *Construction and evaluation of gold standards for patent classification*, Harris, Trippe, Challis, Swycher (World Patent Information, March 2020)

- *Weightings* - SPI models require calibration using weightings. These include both subjective weightings such as “threat weight” (the level of risk posed by any given party at any given time e.g. if there is a cross-licence threat weight=zero) and technology weight (recognising that some technologies make a greater contribution to value than others). Objective weightings can also be included such as quality metrics (e.g. based on forward citations). In this context, quality metrics are working to find the lowest not the highest ranked patents.

Cipher has published this model², and also supports companies in the design, build and operation of customised SPI models.

You are not being asked to cut budgets, you are being told

Patent rights last for decades. The decisions you make today will have significant ramifications for generations to come. There has never been a better opportunity to understand why your portfolio is the way it is.

It is inevitable that you have more patents than you need in some areas (and less than you need in others). It is also very unlikely that the patent rights that require action today are not the ones which you should be cancelling. SPI models are a rational and objective way of communicating the savings you can make and the timeframe over which they will crystallise. At the same time, it will provide you with the opportunity to explain the value of your portfolio and the level of increased patent risk that would inevitably be caused if the cuts are made in the wrong place.

Conclusion

Due to the impact of Covid and the inevitable focus on patent budgets, now is the time to undertake proactive SPI modelling and get ahead of the curve and the competition. Unlike any other previous crisis, the analytical tools and the expertise (provided by the combination of Cipher, and knowledge experts from Cipher combining with a company’s key IP personnel), are available to critically assess patent portfolios, sharpen the focus on value adding patent families and save substantial avoidable costs with limited commercial downside.

For more information managing your patent budget, contact us directly at info@cipher.ai or find out more at www.cipher.ai.

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