

Industry report - IP valuation and capital raising

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NOV 15

Griffith Hack - IP valuations

Raising funds is a common issue for early-stage and high-growth companies with few tangible assets. Lack of revenue or losses caused by investment in R&D, together with a weak balance sheet, can result in awkward conversations with potential investors. A recent transaction illustrates how a robust valuation, supported by patent attorney input and patent analytics, can help get equity funding over the line.

The case study involves a privately owned mining equipment company, SmallCo, with a patent portfolio protecting technology that facilitates deep-hole drilling to unlock commodities that were previously uneconomic. Although the technology was only at the prototype stage, its benefits had been assessed through engineering studies and potential investors had been identified. In order to articulate and quantify its economic potential, the company commissioned an independent valuation of its core asset: its patent portfolio.

A valuation is an opinion, not a statement of fact. But in this instance, the IP valuation opinion withstood investor scrutiny and the business raised tens of millions of dollars for a minority stake, despite not having a commercialised product. The credibility of the valuation was established by analysis and disclosure supporting the building blocks that substantiated the findings:

- an assessment of the attractiveness of the target market in terms of size, growth and competitive forces;
- an evaluation of the incremental commercial utility of SmallCo's technology relative to alternatives;
- an assessment of the extent to which the patent portfolio protected the differentiating features of the technology;
- a review of the useful economic life of the intellectual property; and
- a risk assessment covering development, market and asset-specific risks.

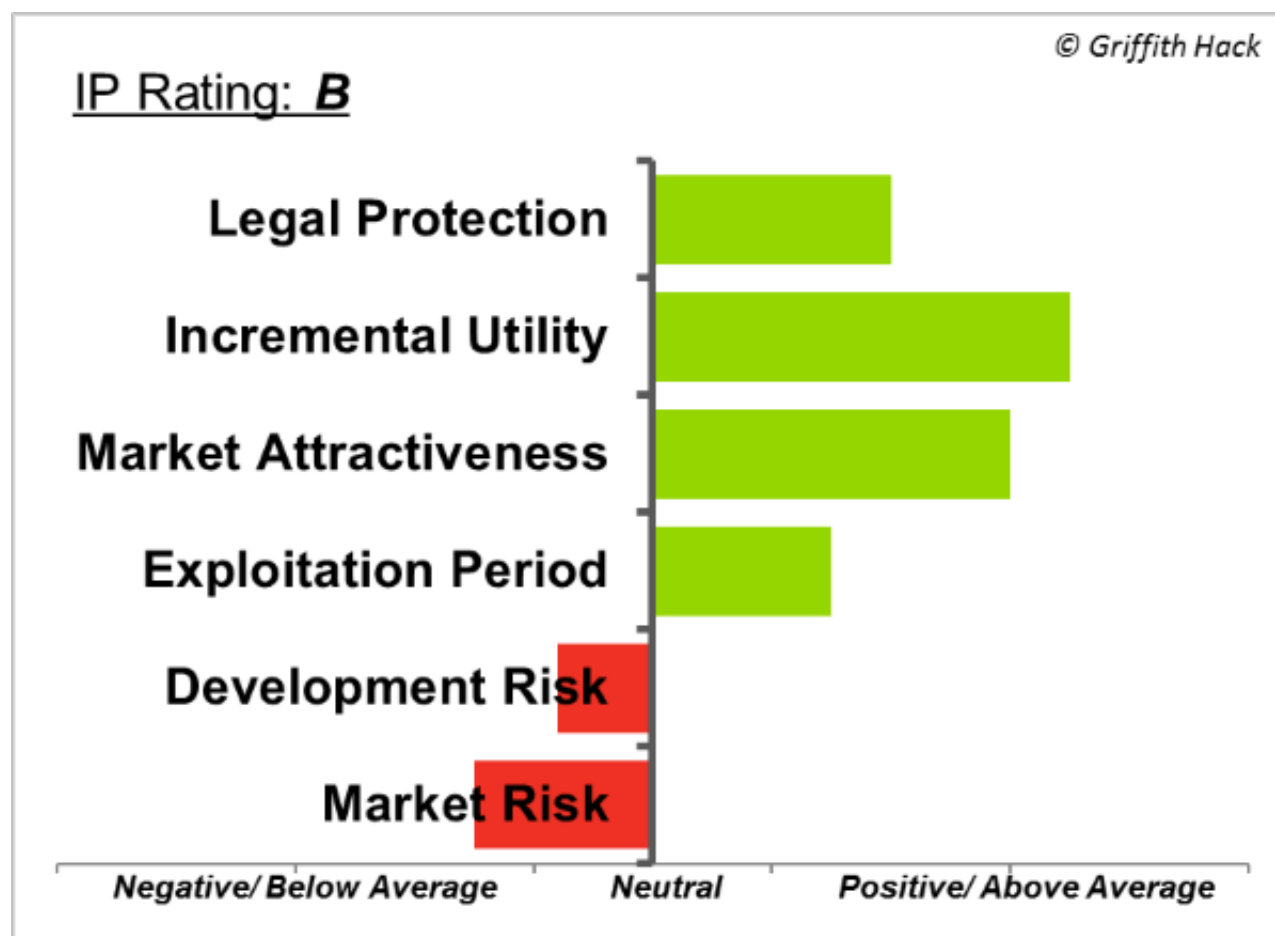


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IP Amplified

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In addition to feeding directly into the valuation model, these factors were summarised in an IP rating. The rating profile shown below provides a snapshot of the earnings capability and risk parameters of the intellectual property. The overall rating of SmallCo's intellectual property (expressed in a range between E- and A+) was B, which equates to 'moderate strength', as the high earnings potential was partly offset by development and asset-specific risks.

Rating profile



The narrative which emerged from the IP rating was one of great technology, good economics and solid IP protection, with more risk than average. Each of these attributes is discussed below.

Market attractiveness

As with any market analysis, the definition of the target market was essential. SmallCo's technology was primarily designed for geothermal and shale gas applications, but the targeted niche market was deep deposits located under hard rock. Strong growth was anticipated in the broader geothermal and shale markets, and there were no competing technologies in the targeted niche. Market size and growth in relevant countries were

overlayed with specific opportunities that had already been identified by SmallCo's management. This analysis fed directly into the revenue assumption used in the valuation model.

Patent analytics gauged the strength of the patents in terms of citation analysis. Patent landscape analysis also tracked the level of patent activity in the broad tech area and identified companies that might be interested in licensing or acquiring the intellectual property.

Visibility of the transactions landscape was gained through a study of licensing and deals databases. In addition to identifying the most active deal-making companies, the analysis determined a royalty rate range for broadly comparable intellectual property.

Incremental commercial utility

Within its niche markets, SmallCo's technology represented a breakthrough as it increased the commercial viability of resource extraction from deep reserves in hard rock formations. Prototype testing and engineering studies had quantified the incremental functional performance of the technology relative to alternatives. However, the ability to extract resources from hard-to-reach reserves was only part of the equation. In this case the functional advantages of the technology were accompanied by cost advantages – specifically, quicker installation time, lower labour costs, lower wear and tear and significant fuel efficiency.

The combination of the functional and cost benefits of the technology enabled profitable extraction of the targeted reserves. Independent studies of the performance of the prototype provided credible input to the valuation model.

Legal protection

So far, SmallCo had great technology and good economics; but was it well protected?

SmallCo's intellectual property consisted of four patent families registered in a variety of jurisdictions. The patent families covered four related products. Two crucial – and complicated – steps in the valuation were to determine the product features responsible for each performance attribute and then to assess the extent to which these features were protected by patent claims.

Patent prosecution and technology development move at different paces and sometimes in different directions. In this instance it took several meetings between the inventor, the patent attorney and the valuer to align product benefits with technical features and patent

claims. Consideration was also given to the design-around risk and the ease of identifying patent infringement.

The conclusion was that the patent portfolio provided effective coverage of the differentiating features of SmallCo's products.

Useful economic life

The useful economic life of patents can be shorter than their legal life due to technical obsolescence, legal challenges and changing market conditions. In some instances the speed of technical development can result in the expected economic life of newly granted patents being less than five years. In contrast, the strength of SmallCo's intellectual property and the market characteristics justified the assumption of a longer useful economic life. However, due to the materiality and uncertainty of this assumption, it was flexed to determine a value range.

Risk assessment

The following risks were reflected in the IP rating and discount rate:

- Development risk – at the valuation date, the technology had not yet been commercialised, so there was a residual risk that the commercial-scale use of the products would not yield the expected benefits.
- Market risk – the risks intrinsic to the upstream oil and gas market were considered.
- Company-specific risks – the risk premium associated with small companies was factored in, relevant as the intellectual property was valued in its current use.
- Asset-specific risk – this acknowledged the complexities of patents as an asset class and the fact that the validity of granted patents can be challenged. Account was also taken of the fact that some secondary patent applications had not yet proceeded to grant.

These risks were reflected in the discount rate which was applied to forecast cash flows. It was not considered appropriate to risk weight forecast cash flows, as SmallCo's intellectual property was extremely close to commercialisation.

Valuation methodology and assumptions

SmallCo's intellectual property was valued using the income approach. Relief from royalty was the primary method of valuation and the intellectual property's contribution to earnings triangulated the analysis of comparable royalty rates, profit split analysis and value mapping.

Valuation assumptions were directly linked to the components of the IP rating (this process is illustrated in “[The income approach to tech valuations](#)”).

The scope of the valuation was restricted to the immediate opportunities for the SmallCo intellectual property. A number of regional markets and secondary applications were excluded. Upside potential was identified but not quantified, as its exploitation required further funding and business development.

Value reporting

The valuation complied with international valuation standards and the Royal Institution of Chartered Surveyors' Guidance Note on the Valuation of Intellectual Property. In compliance with these standards, full disclosure was made of the scope of the engagement, factual assumptions, information sources and all supporting analysis. This level of visibility enabled users of the valuation report to form their own opinion on the reliability of the judgement and opinion of the valuer.

SmallCo used the IP valuation report to support equity funding negotiations. Similar reports have proved effective in raising debt and negotiating IP licences and joint ventures.

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