

Using IP data for 2017 Market Intelligence & Investment Research

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Expanding sources for market intelligence

Introduction

Analysis of data and information within intellectual property (IP) forms a vital part of investor and due diligence activities, especially in terms of determining investment attractiveness of a company and associated risks.

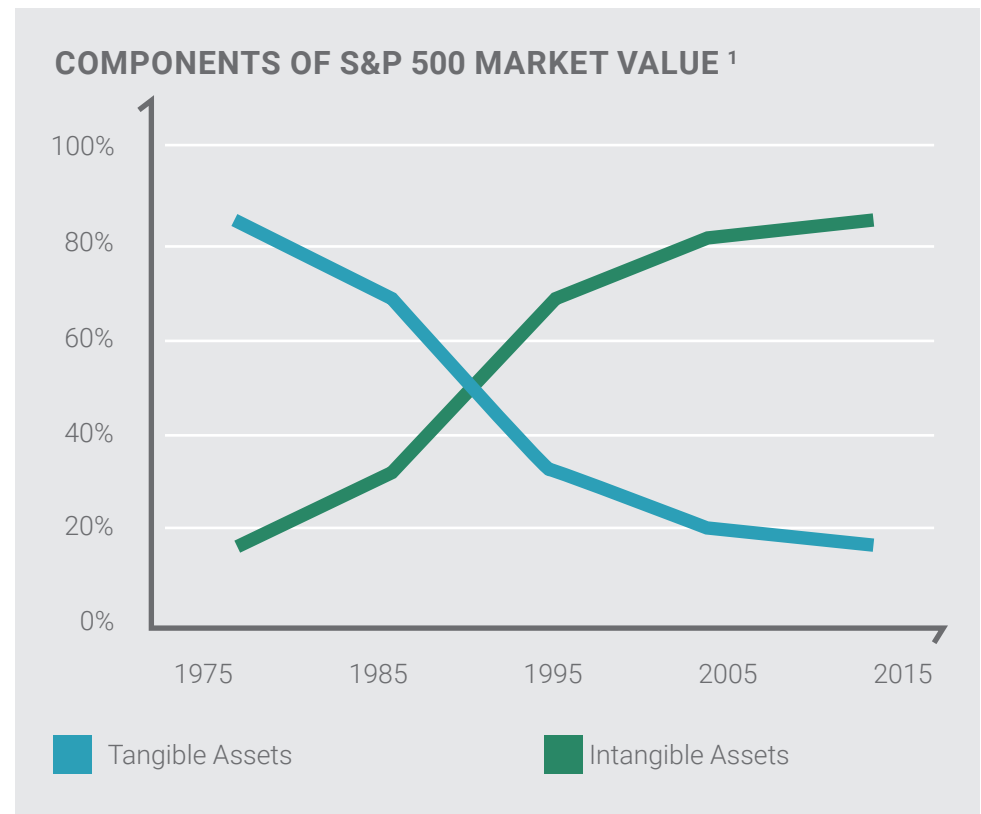
With the transition to today's knowledge-based economy, intangible assets are now estimated to represent around 80% of a company's overall value. As IP forms a considerable proportion of this amount, it is an area that investors and shareholders are scrutinizing in more detail than ever before.

Why IP analysis?

Successful market intelligence will leverage all data sources that are available in order to build the most complete picture. IP analysis is particularly rich in data that can answer detailed questions to inform potential investors or shareholders about:

1. The dynamics of specific technology markets, including technology sub-segments where some of the hottest activity is taking place
2. Whether a company is investing in the best technology areas and how it compares to the competition
3. Whether a company is leveraging its IP strategy to create the best value
4. Whether a company is taking steps to protect the value of its intellectual property

In this white paper, we take a look at how IP analysis can reveal answers to each of these questions.



¹ <http://www.oceantomo.com/2015/03/04/2015-intangible-asset-market-value-study/>

Understanding a market and its trends

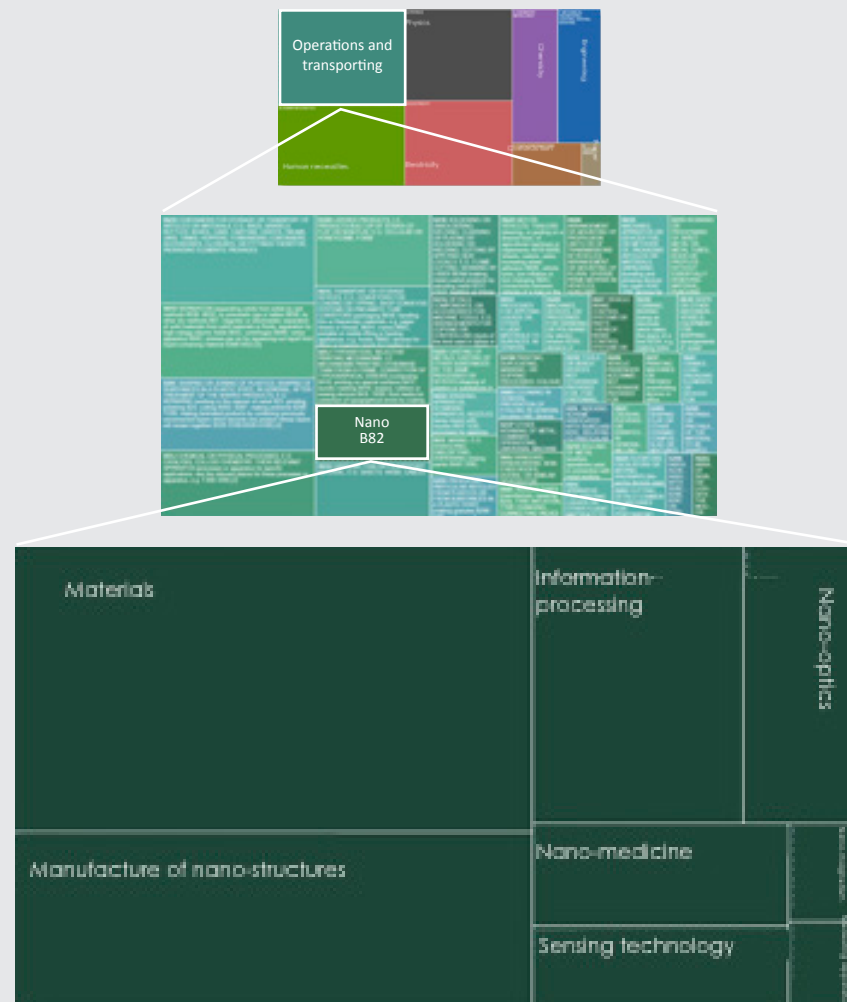
Defining a market

Most markets are complex, consisting of multiple segments and sub-segments. Being able to clearly define a market is vital for accurately understanding the competitive landscape and trends in that space.

The structure of patent documents (most notably, the way in which they are classified by patent offices into their respective technology groups) means that there is already a pre-built database. This can help isolate specific technologies within different industries and subcomponents of these. The International Patent Classification (IPC) code provides the framework for achieving this.

By conducting a keyword search of patents in conjunction with these IPC (or alternatively the even more accurate Cooperative Patent Classification) codes, even non-IP experts will find that they can quickly break down an industry into all of its constituent parts and analyse highly specific technology spaces.

IP ANALYSIS CAN BE USED TO DEFINE MARKETS AND MARKET SUB-SEGMENTS

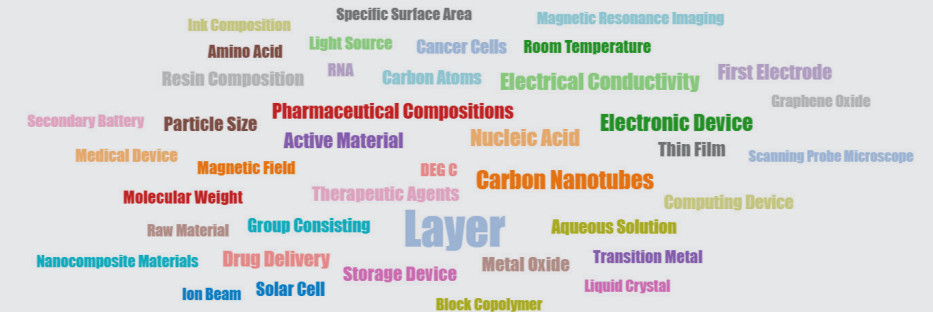


Understanding a market and its trends

Assessing market direction

A review of the most common words and phrases within a group of patents might highlight some of the key innovation points that you'd expect to see on the roadmaps of companies focused on that technology. How these words are trending will reveal where R&D investment is heading.

IP ANALYSIS USED TO IDENTIFY KEYWORDS AND RESEARCH TRENDS IN NANOTECH



Using IP analysis to determine market maturity and opportunity

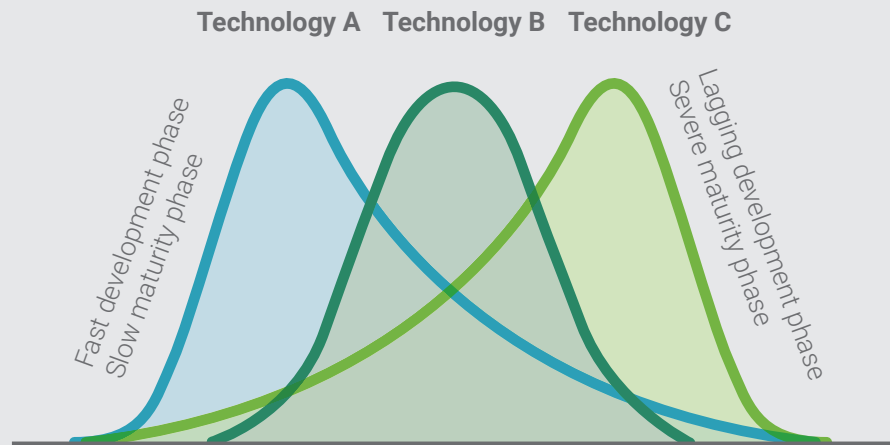
By turning information in IP into data points it is possible to chart specific aspects of a market, such as innovation rates in various technology sectors. The innovation rate is an important factor for determining the life cycle stage that a particular technology has reached. Most technologies follow predictable patterns in terms of their innovation rate which, in turn, can indicate what the future holds for that technology – whether it is likely to experience positive growth rates in the near term or whether it has reached a plateau and will decline.

Understanding a market and its trends

Technology lifecycles

The chart below represents possible trends in the innovation rates of three competing technologies within an industry area. Anyone with an interest in a specific organization and who is active in this area would benefit from knowing whether that organization is involved in some or all of the technologies depicted here as Technology A, B and C.

KNOWING THE TECHNOLOGY COMPETENCIES OF AN ORGANIZATION - AND THE POSITION OF THOSE TECHNOLOGIES IN THE TECH CYCLE - WILL HELP FORECAST FUTURE PERFORMANCE.

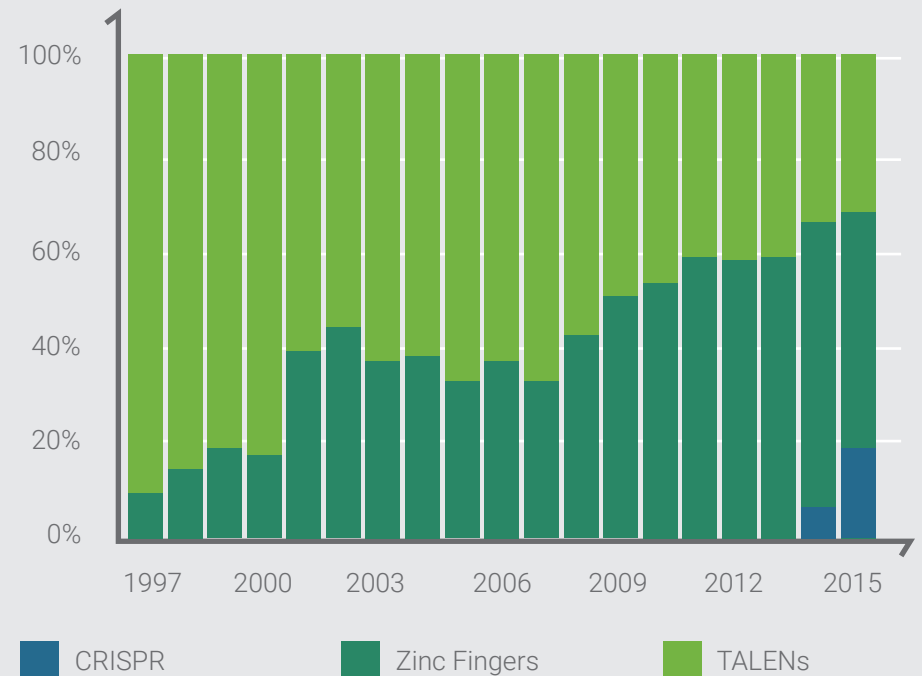


In practice

The chart below shows the latest data in the evolution of technologies for gene-editing.

Technology A (green) is currently in decline, Technology B (dark green) has reached maturity - but we can see that it will quickly lose share to a new Technology C (blue). Therefore, it would be recommended to work with companies that have access to Technology C – in this case, CRISPR.

TRENDS IN GENE-EDITING TECHNOLOGIES



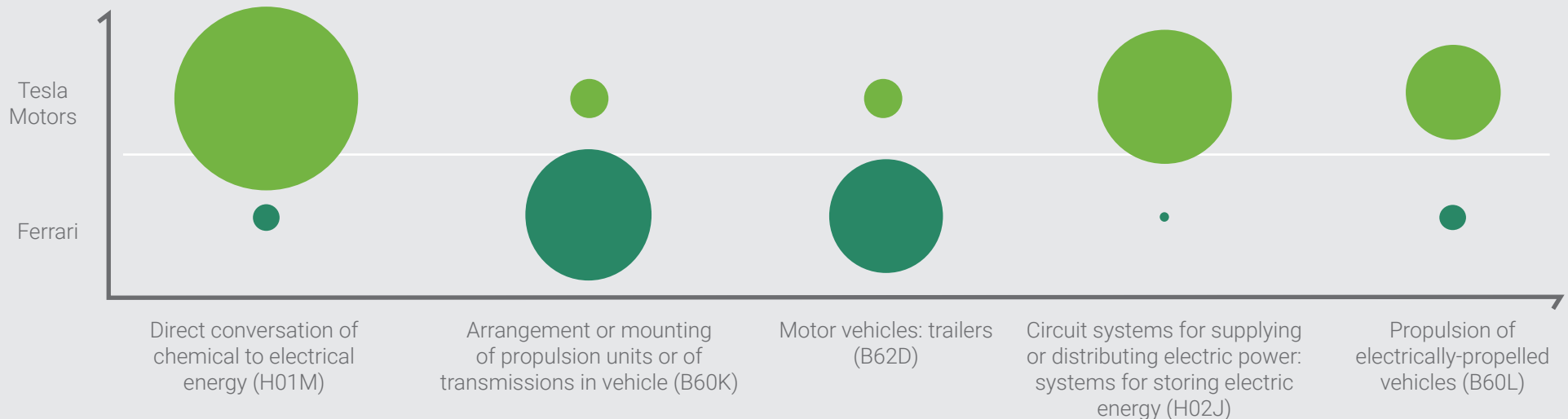
A rich source for competitive analysis

Due diligence or market intelligence research will inevitably include a review of an organization's position within the competitive landscape. Access to new or emerging technologies, such as '*Technology C*' as covered in our previous example, and demonstrating a strong culture of innovation are essential for securing stability and growth. It is why IP is an essential part of this analysis.

Benchmarking

In order to assess how a company is likely to perform against its competition, the relevant strengths and weaknesses of that company should be taken into consideration. IP analysis can be used to create a graph that shows a company's footprint in comparison to competitors in a specific technology area, across a portfolio. This will identify areas that an organization can capitalize on, or areas that require improvement, especially if they are not focused on the hottest technology growth areas.

THE TECHNOLOGICAL FOOTPRINTS OF TESLA AND FERRARI SHOW A DIFFERENCE IN STRATEGY AND APPROACH TO THE MARKET



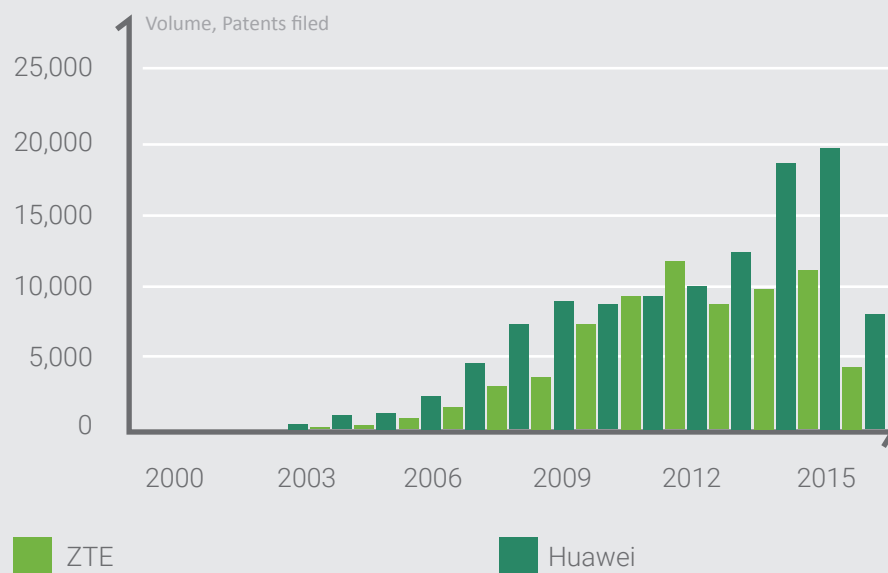
A rich source for competitive analysis

Ability to execute vision

Companies are fond of expressing a desire to become the global leader in their industry, ahead of all other rivals, in any technology sector in which they are active. For investors or researchers, the question is: can they deliver on this vision?

There are a number of data points within IP intelligence that can be used to shed light on strategy questions such as these. For example, Huawei and ZTE have long been engaged in local rivalry in China. However, it was Huawei that managed to break into the international arena more rapidly – and it's Huawei that became the better known brand globally. It was achieved through a robust approach to R&D, a point that's reflected in the data.

HUAWEI OUTPACES ZTE IN INNOVATION IN TERMS OF OVERALL PATENT FILING...



Source: PatSnap Insights

...AND HAS A HIGHER PROPORTION OF INTERNATIONAL PATENTS (filed outside China authority)



Source: PatSnap Insights

Valuation of intangible assets

Shareholders have been becoming more and more aware of the growing impact of intangible assets on a company's value. As such, there is mounting pressure to reach an accepted methodology for assessing the value of intangibles, of which IP constitutes a significant proportion.

Adopting a fair approach

The '*market approach*' provides one of the best methods for determining the overall value of an organization's IP portfolio, as the value of each patent can be estimated according to the attributes of that patent – similar to how real estate is valued based on characteristics, such as the age or size of a property.

Within IP analysis, the same methodology can be applied to patents using characteristics such as how many citations a patent has (a feature which indicates its influence in the market), the age of the patent, global coverage and numerous other indicators. An organization's complete portfolio can then be assessed and judged, for example, against averages within a market area.

PATENT PORTFOLIO DISTRIBUTION WITHIN A TECHNOLOGY AREA, BY VALUE*



* \$ = Lowest value, \$\$\$\$\$ = Highest value

IP analysis and evaluating investment risk

As the World Intellectual Property Organization (WIPO) explains: *"The appropriate use of the intellectual property system is a powerful tool for mitigation of risks on capital investments."*²

Determining scope of research

In order to conduct an assessment of risk, it is important to first determine the factors that are most significant with regards to short term or longer term risk. For example, in the short term, a new patent being filed by a competitor in a specific technology space, or a litigation case that is opened, lost or won will have an immediate impact on stock performance and should be monitored. Patent lawsuits can cost around \$500,000 per claim if brought to trial.³

Litigation and Licensing

The rivalry between Apple and Samsung exemplifies this point. In the 2012 dispute, in which Samsung was found to be infringing upon six of Apple's patents, the announcement of the result caused a 5% decrease in Samsung's stock value and a 2% rise for Apple.⁴

And in the longer term, litigation trends, innovation rate, licensing opportunities and portfolio valuation will all have an impact on a company's overall valuation. If a company is increasing its innovation, it is likely that it is confident in the areas in which it is investing. It has been proven that the more patents a company has, the more value and protection it provides for shareholders.

Patents can be central to business transactions (as we saw in Google's acquisition of Motorola), or can form a pivotal part of negotiations. Equally, radical innovation from a company can also cause stock price volatility with instant impact, such as Apple filing for an autonomous vehicle-related patent deemed to disrupt the automotive market.

² http://www.wipo.int/sme/en/documents/venture_capital_investments_fulltext.html/

³ *Ibid.*

⁴ Nam, Sangjun, Nam, Changi, Conference Paper, *The impact of patent litigation on shareholder value in the IT industry*, November 2012

Conclusion

IP analysis provides unique insight

Here are four key areas in which IP analysis can provide a rapid avenue for research, or where it can yield essential or unique insights:

1. Industry overviews
2. Competitive intelligence
3. Valuation of intangible assets
4. Assessment of risks and opportunities

Finding the right data

In order to benchmark an organization against either specific competitors or against the market average, data points that can be considered include:

Technology

Is the organization innovating quickly? How does its innovation rate compare? How many new patents should it be aiming for?

Competitive Landscape

Is the organization ahead or behind the competition in specific tech areas or geographies? How does its R&D direction compare?

Litigation risk

How often is an organization involved in litigation, either as defendant or plaintiff? How will this impact short-term risk or longer-term strategy?

Co-operation

Are joint ventures and licensing opportunities being exploited? Is the portfolio delivering increasingly better returns?

By integrating IP analysis into the research and reporting process, it becomes possible to make more informed decisions or recommendations that, crucially, are supported by data.



Where will you find your next opportunity?

About PatSnap

PatSnap is the leading provider of Intellectual Property Analytics, for analysing tech trends, driving innovation, market planning, competitor intelligence and maximising return on IP assets. Founded in 2007, PatSnap is used by R&D, business and IP professionals in thousands of commercial and not-for-profit organisations globally, including NASA, the Department of Defense, China Mobile, Goodyear and Vodafone. With a database of over 121 million patents, augmented by economic, legal and company data, we use proprietary machine learning technology to make IP work for all, including those with no IP experience. We have offices in London, Los Angeles, Singapore and China.

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