

NEWRY

Product Commercialization Strategy

The Role of Intellectual Property in Competitive Understanding

*“We learned things we never thought we could by analyzing
our competitors’ IP activities.”*

Mark McClusky, President

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For many companies, technology drives their business, either in the products or services provided or in the processes used to generate them. Companies protect their technology assets, known as intellectual property or IP, through copyrights, trademarks, and patents. At the same time, companies typically trumpet their technology advances to investors, customers, and employees, as signs of financial strength and scientific competence.

A competitor's intellectual property can be analyzed through detailed review of multiple sources, such as patents, published articles, and knowledgeable industry observers. Analysis of a competitor's intellectual property offers a wealth of strategic insight, such as advance glimpses of new product introductions or a view of the competitor's R&D organization. More fundamentally, an IP review can provide real understanding about a competitor's strategic intent, where it is placing its bets, and how it intends to lead or respond to competition.

Intellectual property (IP) analysis is a subset of comprehensive competitive analysis. While it cannot reveal the complete picture of a competitor's business position, it does provide vital information to sharpen the understanding of competitors' products, technical organizations, and research capabilities.

Why Conduct a Review of Intellectual Property?

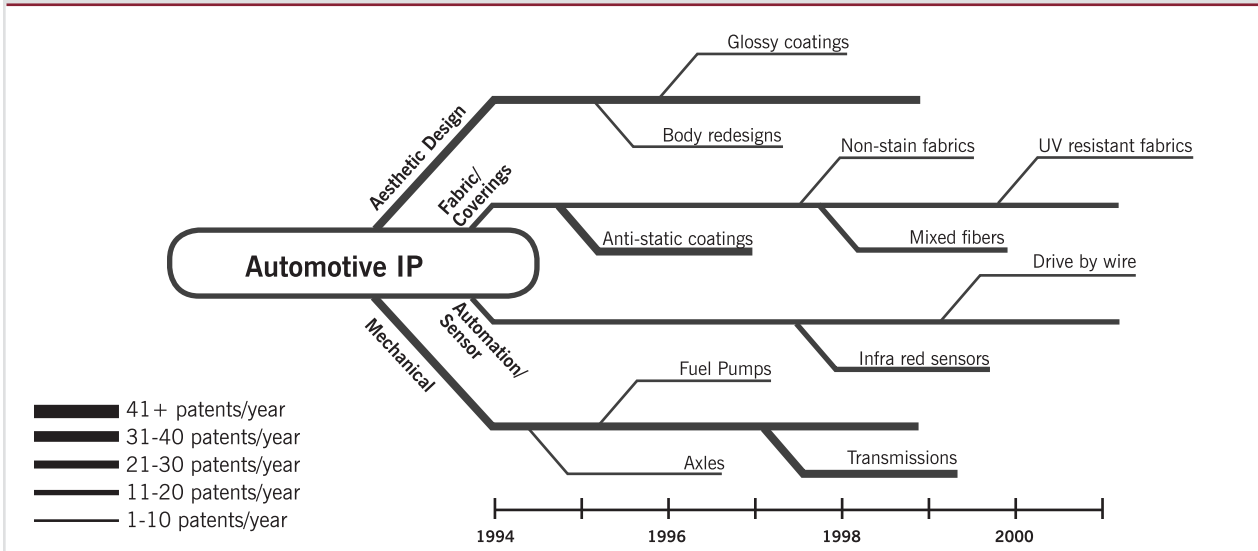
There are several benefits of engaging in a review of competitors' intellectual property:

It is highly efficient and relatively quick. IP reviews can provide an accurate directional understanding of strategic issues quickly. Data collection is highly efficient because there are relatively few sources of IP information. The principal worldwide patent clearinghouses and key technical and trade associations typically offer enough direction and insight to form a basis for understanding competitors' relative technology positions. An IP review of an active competitor—one filing 200-300 patents annually—typically requires only a few weeks.

It provides insight into the future. Reviewing IP activity provides a unique opportunity to understand and predict competitors' moves in advance. Companies' new product plans can often be discerned from hints in patent applications dating as far back as five to six years.

The following diagram depicts patent activity for a major auto supplier over a six-year period. The most recent focus is observed in mechanical components, specifically transmissions. The pattern made visible by this analysis suggests that new transmission technologies will be introduced by this company within the next 12 months to 2 years.

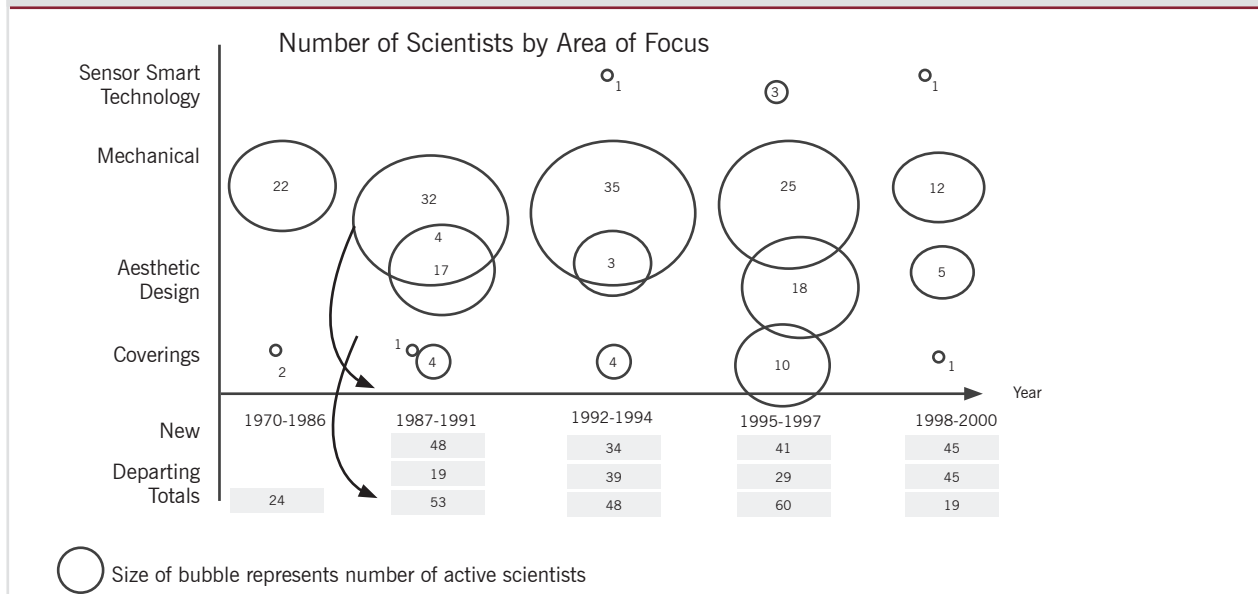
Example Output: Automotive Supplier's IP Focus By Product Category, Illustrative



It yields a wealth of valuable information. A representative IP analysis may provide insights along multiple dimensions, including: recent product developments; overall shifts in market and technology focus; R&D budgets; scientist efficacy; R&D organization size and deployment; capital investment; and management sourcing practices. Moreover, because most of the information is provided in response to regulatory requirements, it is fact-based and highly reliable.

In the example provided in the following chart, the overall size and focus of the company's R&D department becomes evident. The recent decline in the number of active scientists suggests either substantial headcount reduction or outsourcing of R&D – two hypotheses that can be further investigated.

Active Scientists, XYZ Corporation, Illustrative



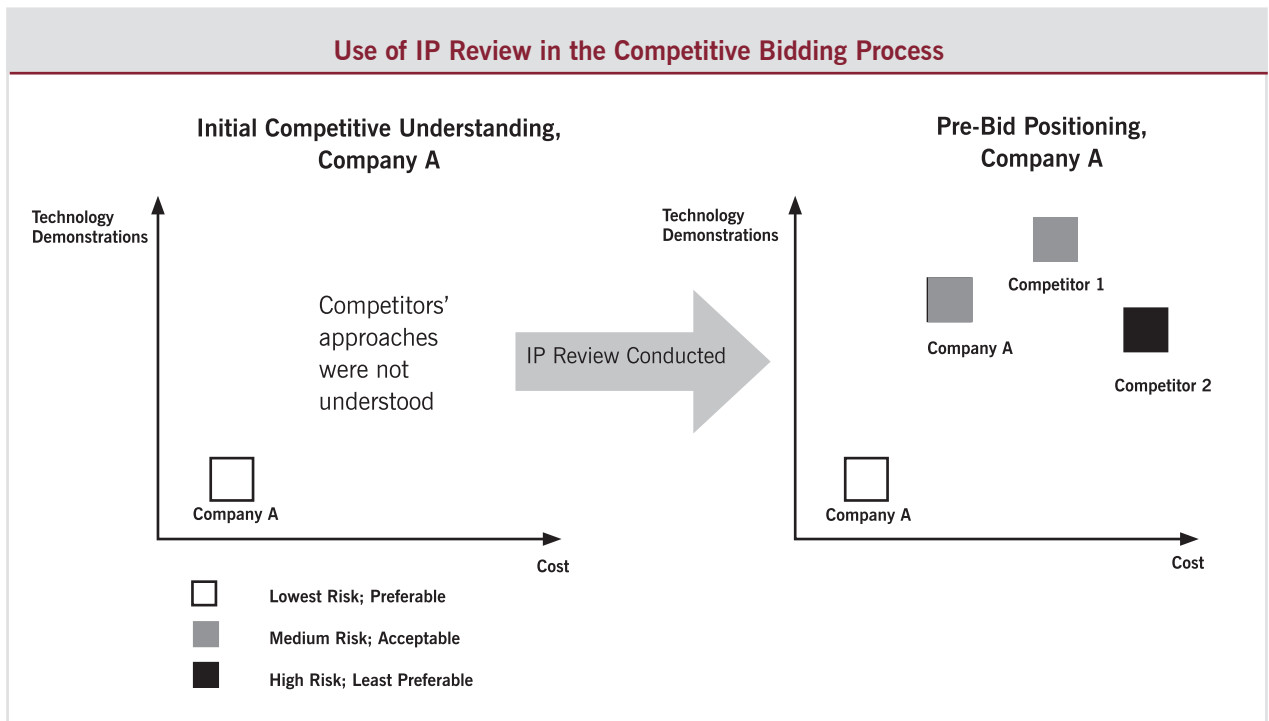
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A recent IP review requested by the R&D organization of a household goods manufacturer revealed valuable information useful to several organizations within the company.

Corporate Marketing and Strategic Planning incorporated information about the competitor's future technology and product focus into their action plans. R&D learned that the competitor's R&D organization was patenting more effectively and at lower cost by outsourcing non-critical design aspects and by operating fewer, large-scale R&D centers that could serve multiple global regions.

It can provide business-critical information. For businesses that compete at the frontier of technology, knowledge of competitors' technology plans can provide decisive advantages. Companies that depend on maintaining market position through continuous development of new products, or those that compete through fixed-price contract bidding, would gain the potential for competitive advantage by understanding a competitor's proposed design or manufacturing processes. While patents alone seldom provide such insight, this information frequently exists as public knowledge within the industry community, and is attainable to experienced researchers exploring the right channels.

For example, three companies were competing for a Navy contract to build the next generation of surface destroyer ships, which would be awarded on the basis of cost, risk, and technology demonstration.



As part of its competitive analysis, Company A conducted an IP review of the other two competitors. The IP assessment provided crucial insight into the likely competitive weaknesses of Company A's ship design, as well as its probable advantages over Companies B and C. Armed with this insight, Company A modified its initial ship design in several areas, crafting a bid that addressed the shortcomings and capitalized on the competitors' inherent weaknesses.

What Does a Review of Intellectual Property Entail?

How does a company learn so much about its competitors' proprietary technologies through public sources—prior to their introduction? There are three key steps to overcoming this challenge:

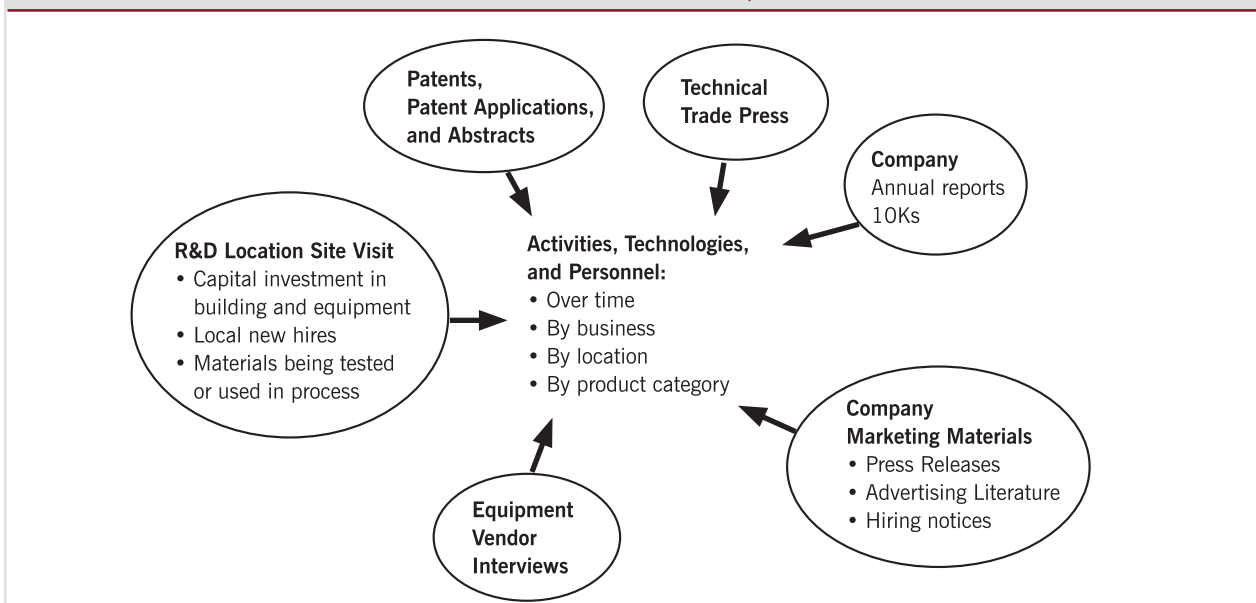
1. Define the competitor and its IP activities appropriately. The scope and definition of the IP review—which products, technologies, and organizational units to include—are critically important. Often, technologies migrate across subsidiary companies, from application to application. Major corporations with multiple subsidiaries or divisions generally own IP as corporate assets; defining the analysis too narrowly, within existing competitive businesses and product lines, may limit the results or cause the most critical information to be overlooked.

Even when divisions are managed separately, most companies eventually find themselves mixing and matching IP from separate divisions, as the value of particular technical processes or product features becomes clear. Predicting such areas of technical crossover is another important aspect of defining the competitor's activities and direction.

2. Find the information. Because companies seek both to legally protect and to showcase their intellectual property, many sources can be tapped to observe their activity. Most of these sources are completely public. Some are readily available, such as patents and published trade articles; others, like data buried within regulatory permits or “common knowledge” of active industry participants, are more difficult to find or must be analytically processed to provide meaning. Whatever the particular source, information is there for experienced researchers who are diligent enough to explore in the right places. In many cases, it can be accessed quickly and at low cost.

The number of sources tapped depends on the specific questions to be addressed, but almost always begins with a review of patents and patent abstracts. Depending on the need, a multitude of other sources can be pursued, such as interviews with equipment vendors, company press releases and financials, marketing campaign ads, and visits to the R&D facility locations themselves to examine tax records, building permits, and environmental documents.

IP Review Information Sources, Illustrative



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3. Analyze the data and draw conclusions. Once the information is assembled, it is framed so that insight can be drawn from fragmented or seemingly innocuous data. This entails setting up a comprehensive database of the competitor's IP activities and cross-referencing multiple variables. By looking at all the data on a specific IP activity—e.g., timing, product family, business unit, location, and assigned scientists—analysts can draw surprisingly coherent conclusions about the dynamics of a competitor's entire IP organization and product strategy.

Insight to Inspire Action

Some managers ask, "How can the questions answered by examining a company's IP portfolio be tied to specific actions that my company could take?" The two following examples demonstrate how insight from focused and thorough IP reviews can drive action.

- **A leading manufacturer of housewares wanted to understand what new advances in mechanical design would be present in a key competitor's next generation of products.** The IP analysis produced a startling discovery. Competitor patent applications followed a distinct pattern not previously perceived by the client: the competitor had abandoned its traditional development strategy of pursuing mechanical improvements and instead was energetically refocusing its efforts on aesthetics and design. The competitor had quietly decided to adopt a fundamentally different strategy, which would only have become evident two or three years later, when the designs on its drawing board were introduced as new products. The client, forewarned by the results of the IP review, began carefully assessing where market preferences for its products were heading, so that it could combat the competitor's new strategic direction.
- **A manufacturer of telecommunications devices faced an industry-wide shortage of a critical component, produced using a time-consuming, low-yield process.** Because all of the device producers were backward-integrated into components, the manufacturer was limited to only two strategic options to avoid being shut out of the market: 1. acquire a component supplier or competitor at a premium price, or, 2. develop a process to increase existing capacity. The race was on to be the first to develop the breakthrough process technology.

To understand its competitive position, the manufacturer undertook an IP review. An intense examination of technical papers, patents, company financials, and specific R&D locations ensued. The analysis revealed that two of its aggressive competitors had continued to improve internally developed processes, while the remaining competitors relied on less advanced, off-the-shelf technology.

Ultimately, the internal development by the two aggressive competitors was determined to be at an early stage; they were not significantly ahead of the device manufacturer. In light of this finding, the manufacturer did not feel obliged to make a major acquisition. Instead, it elected to dedicate additional resources to develop its own internal processes to increase capacity, ahead of or in line with the leading competition.

As these cases suggest, the insight gained from reviewing competitors' intellectual property inspired actions that produced direct, immediate benefits. The IP review process itself—because it is fact-based, analytically rigorous, and externally focused—became an effective catalyst for action.

Our consultants have extensive experience in field data collection, rigorous problem-solving, carefully tailored analytical tools, deep understanding of product economics and market behavior, and superior responsiveness to client needs. We come from many different backgrounds – including business, industrial, engineering, finance and economics, top-management communications, and public policy. All Newry consultants share a strong professional ethic: tenacious pursuit of information, rigorous analysis and superb strategic communication. These traits and our unshakable dedication to client service are what provide unique value to our clients. We would be happy to discuss how Newry could help your firm address their product commercialization strategy needs.

Call us at 440-808-3839 to learn more.

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