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#### SCPD: Integrating Strategy, People, Process, Tools, and Technology

## Intellectual Property Practices Lag Product Development Practices



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The emphasis of the product development community since 1990 to improve the capabilities of product development processes has resulted in meaningful advances of known best practices. The management science behind front-end processes such as Voice-Of-The-Customer, Product Definition, Product Selection Decisions, Pipeline Management, and Portfolio Management are all significantly advanced versus historic practices. In-line processes such as Alpha and Beta Testing and Turnover-To-Production as well as back-end processes such as Post-Launch Reviews, and Product Commercialization have all moved forward. Clearly, companies have significantly more understanding and control of their product development processes today.

At the same time, the importance of intellectual property [IP] management has increased. What is new and novel generally has the most current value. Industry is becoming aware of this at an increasing rate every day. There were many examples of inappropriate usage of other's intellectual property by a number of emerging Asian economies during the last decade. In the past few years, basic laws governing IP are now in place in most significant economies as a result of Western pressures to do so. There is now an active "WIPO," World Intellectual Property Organization that deals with IP on a global basis. There is now an emerging "eBay of IP," through Ocean Tomo's efforts to create a market place for the trading and exchange of IP. There is now a new-to-the-world IP fund that is actively traded on Wall Street. All of these developments reinforce the current importance of IP and portend its increasing importance in the years ahead.

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While IP is created in many places in the organization, product development is one of the prime sources of innovation, invention, and the generation of IP that should be considered for registration. Most of this IP is conceived during the fuzzyfront end processes and early into the product design activity. It is therefore reasonable to assume that the processes of Product Definition and Product Selection Decisions should be coupled, if not closely coupled, with the processes associated with IP Definition, IP Selection Decisions. At the present time, this is not the case. While the markets for IP are clearly on the move, the underlying processes of IP have remained essentially the same. Look for this to change in the coming years.

#### **Product Processes**

At the present time, industry has evolved to view a "2.5-Step" [3-Step] Product Selection Process as the best practice to assure proper VOC and product definition activities that would lead to a best possible product selection decision. These multistep practices have now penetrated more than 80% of industry. Almost half now use the full 2.5-Step process, and about a third use at least "2-Step" [Figure 1].



Figure 1: Number of Product Decision Steps

The number of players involved in decision making has increased and become more cross functional to now include the majority of the stakeholders in new product success. On average today, six people are involved in the go-no go decisions associated with new products [Figure 2 (Page 3) – Combined data for both 2.5-Step and 2-Step processes showing involvement for last two steps, not including the initial ".5" first step].

At the same time, the formality of the decision-making meetings has increased. Historically, one to three people met and discussed some basic financial information projections that were provided to them and made a go-no go decision. Today, the formality of these meeting venues is much greater [Figure 3 (Page 3) — Combined data for both 2.5-Step and 2-Step processes showing involvement for last two steps, not including the initial ".5" first step].

Product definition and selection decisions should be coupled with IP definition and selection decisions.



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Figure 2: Number of Product Decision Makers



Figure 3: Product Decision Meeting Formality

Worth noting is that these data refer to product development and not to "research" or to "applied research" or to "advanced development" processes. These earlier phase processes have become more mature than they were years ago, but they do not (yet) have the structure and rigor that is now present in most companies for the "nearer at hand" product development processes.

#### **IP Processes**

While fuzzy front-end product development processes have evolved and are significantly more mature and prescribed versus historic practices, alas IP front-end processes have remained largely the same. To be sure, there are some clear differences in IP processes versus product development processes and one does not expect IP front-end processes have remained largely the same.

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them to be congruent with product development processes but one should expect them to be more closely coupled at this point in time.

The money involved is not small either. While IP investments are generally not the same financial magnitude of product investments, a US patent often costs over \$100K and a global patent often costs over \$1000K. And then, there are annual maintenance fees and the cost of staff to support and manage IP that is registered. As the importance of IP rises in the coming years, the fees and overhead to support IP will increase as well. Then there are a number of companies, especially start-ups, where the IP costs are greater than the product development costs.

Based on research conducted by GGI in late 2004, approximately half of IP decisions are still made in a single meeting or without meeting at all. Approximately half of industry uses a multi-step IP process [Figure 4], but this is clearly less than the some eighty percent using a multi-step product process.



Figure 4: Number of IP Decision Steps

The number of people involved in decision making, while greater for many companies in the past, is still less on average and is more widely dispersed. A common or best practice has not yet emerged. And, many decision makers are only involved in one of the decision meetings [Figure 5 -- Combined data for both 2.5-Step and 2-Step processes showing involvement for last two steps, not including the initial ".5" first step].



Figure 5: Number of Multi-Step IP Decision Makers

Fees and overhead to support IP will increase.

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For those companies that use a "1-Step" or "No Step" process, which is still about half of industry, the number of people involved is about half of those using multi-step processes [Figure 6 -- Combined data for both 1-Step and No-Step processes]. The product development community learned the hard way that if one wants the support of the stakeholder organizations over time, that one had better involve them in the initial selection and decision processes. It is important to remember that the value-equation for successful products will become increasingly coupled with the ability to protect the IP in the products over time.



Stakeholder support requires early Stakeholder involvement.

Figure 6: Number of Single-Step IP Decision Makers

Of the three parameters presented herein to compare product processes versus IP processes, the parameter that is in the best shape is the formality of the decision-making meetings. While still lagging product process meeting formality, IP meeting process formality is mostly formal for multi-step companies [Figure 7 -- Combined data for both 2.5-Step and 2-Step processes showing involvement for last two steps, not including the initial ".5" first step].



Figure 7: Multi-Step IP Decision Meeting Formality

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In contrast, for the half of industry that still utilizes a historic 1-Step or No-Step processes, the formality of the meeting remains largely informal [Figure 8 -- Combined data for both 1-Step and No-Step processes].



Figure 8: Single-Step IP Decision Meeting Formality

#### Conclusions

While product processes and IP processes will always retain unique mutually independent attributes, the commonality of these processes will need to increase for those companies whose product success is partially or significantly dependent on the IP in their products. The train is on the tracks. There are active committees in the Securities and Exchange Commission, Financial Accounting Standards Board, and the National Association of Accountants among others that are working on IP valuation rules and methods. The goal is to be able to value IP in an equivalently accurate manner to the way that physical property and plant equipment assets are valued on the balance sheet of companies today.

In a few years, a method of IP valuation will emerge that will be generally acceptable to regulatory and accounting agencies. At that time, financial statements will begin to represent IP assets just as physical assets are represented today. IP will have finally become a "tangible asset." A whole new "book value" of a corporation will result. IP asset values, for many companies, will dwarf the value of traditional physical assets. If IP is a significant asset to your company and/or is part of your company's new product success equation, your company should strive to bring its product processes in closer alignment with its IP processes before this train arrives into its next station. IP asset values, for many companies, will dwarf the value of traditional physical assets.

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