

This week's lead article *Use of Product Selection Tools Adds Value* is from Bradford L. Goldense, President and CEO, Goldense Group, Inc. (GGI) and Anne Schwartz, Director of Publications, Goldense Group, Inc.

* Use of Product Selection Tools Adds Value *

In the January 17, 2005 issue of 2PLM, we highlighted recent research on product development, intellectual property, and top corporate metrics by Goldense Group, Inc. In this issue we present the third in a series of six articles, which focuses on results in the area of "Product Selection Tools." Next month, look for results on "Intellectual Property Management Process."

In the past two decades the front end of the product lifecycle has received more management attention and has become more formally structured. The management processes at the front end focus on selecting the right ideas and projects - like a filter - to be approved for full development. In the quest to make these product selection processes more robust and effective, professionals are using a variety of tools and techniques, some old and tested and some new, according to GGI's recent research. These tools and techniques facilitate the key up-front decisions to select the best products for development, resulting in better capacity management, faster time to market, and more likely market success.

The product selection process, described in more detail in the February 21, 2005 issue of 2PLM, begins at the capture of an initial idea and consists of all activities leading up to the decision to approve or reject a project for full development. As the front-end process becomes more sophisticated, it is important to know which tools and techniques are most widely used and which might help provide the most value. With this in mind, GGI's 2004 Product Development Metrics Survey investigated the usage of popular product selection tools used today in industry. The 2004 Survey was sent to a broad distribution of product development professionals, and replies were received from 202 companies in a range of industries including industrial and medical products, aerospace, defense, electronics, and chemicals. Respondents were asked to report the frequency of their usage of 21 tools listed in the survey for product selection, innovation, and creation of intellectual property (IP).

The 21 tools listed in the survey cover a range of aspects of the product selection process, such as the areas of incorporating customer needs, product definition, idea generation, feasibility analysis, risk and failure analysis, cost estimating, scheduling, and payback analysis. The research showed that each of the tools listed was "almost always" used by at least one company. At the same time, these findings also indicate that there is no single tool or set of tools used consistently by the majority of all companies. There was a high level of activity across a variety of tools, perhaps some experimentation with some of the newer or less familiar tools.

The top tool used for product selection was Product Specifications, "almost always" used by 47% of respondent companies. Other top tools for product selection also tended to be more traditional, older tools relating mainly to the performance and financial aspects of the product or the development process. While most companies appear to prefer the more familiar, tried-and-true tools, results indicated there is current significant activity with other tools.

When the list of 21 project selection tools was examined for their believed ability to foster innovation and the creation of intellectual property, respondents indicated that Concept Engineering was the most helpful to generate IP and second most helpful to generate innovative thinking. Concept Engineering is a customer-centered process for clarifying the fuzzy front end and translating customer needs into product requirements. The other top tools believed to generate innovation and IP were more customer-focused and market-driven tools than for product selection, and usage was at lower levels. These results reveal much untapped potential to use these tools to generate innovation and IP.

In summary, GGI's research showed a great deal of activity across all 21 product selection tools listed. By far, the more established, traditional tools that focus on product performance and financials continued to be the most popular. With regard to the believed ability to generate innovative thinking and valuable IP, there were no clear trends. Companies would be wise to expand their experimental use of the less popular and/or newer tools in the front end of their product lifecycle as part of their quest to increase innovation and to enhance the generation of valuable intellectual property.

For more information about GGI's 2004 Product Development Metrics Survey, go to GGI's web site, <http://www.goldensegroupinc.com>. To purchase reports, go to http://www.goldensegroupinc.com/cgi/catalog.cgi?display_p355.