Aberdeen Group

The Product Portfolio Management Benchmark Report

Achieving Maximum Product Value

August, 2006

Executive Summary

Issue at Hand

Aberdeen*Group* benchmarks reveal that companies are aggressively seeking top-line growth from product innovation. To achieve their growth goals, the research indicates that they are turning to project- and team-oriented enablers such as project management, product data management, and collaboration technologies. *The Product Innovation Agenda Benchmark Report*, however, highlights a disconnect between the top actions being pursued for growth – namely, "increasing fit of products to customer and market needs" and "increasing value of new products chosen" – and the use of product portfolio management solutions that are designed to enable these exact actions. This disconnect indicates a potential opportunity for companies to significantly improve their product innovation performance through the use of enabling technology. The value available is significant, as ***benchmarks indicate that the majority of companies command at least 11% higher margins on products that have been on the market for less than two years, with almost a quarter realizing margin advantages of 50% or higher*** for new products.

Key Business Value Findings

The benchmark results for this study shed light on portfolio management performance. Top performers meet their goals on about four out of five products, while the poorest performing quarter of respondents meet revenue targets on less than 40% of their products. ***Products fail to meet expectations for many reasons, most of which are self-inflicted by the company bringing them to market***, such as unclear or continually changing product definitions. Clearly, there is significant room for improvement.

Companies are taking action, seeking to achieve growth and improve market position while getting the most out of limited resources and reducing product failures. Specifically, these companies are targeting the following top priorities:

- Balance the product development pipeline with development capacity (59%)
- Increase the success rate of products introduced (39%)
- Increase percent of revenue from new products (38%)
- Increase value of products chosen (37%)

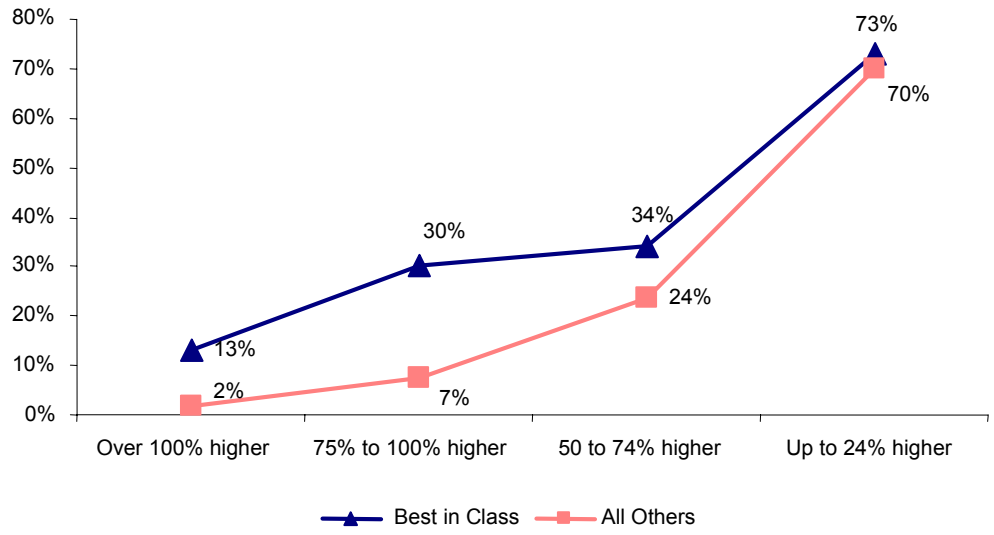
These companies face significant challenges when pursuing these goals, including the inability to properly determine values for product opportunities, decision processes that are not based on objective information, poorly defined decision criteria, and unwillingness to stop failing projects once they are underway. ***Too frequently, politics and inertia still win the day when it comes to making difficult portfolio decisions***, primarily due to difficulties in discussing the true potential value for a product and making decisions based on facts-based portfolio management criteria.

Implications & Analysis

As a result, companies are continuing to experience poor product portfolio performance. Even best in class companies, defined as those that are in the top 25% in regards to meeting product development targets, are meeting those targets for revenue, cost, product development cost, quality, and time to market on only four or more out of five projects (80%). Aberdeen*Group* analysis indicates that best in class companies appear to be achieving their superior performance, at least in part, due to better product portfolio management. Aberdeen*Group* analysis determines that best in class companies in meeting product development targets:

- Are executing product portfolio management strategies 64% more frequently than poorer performing, laggard companies
- Are two times more likely than their lower-performing peers to have been pursuing product portfolio management for more than two years
- Have higher levels of adoption of their product development processes, with more than 80% reporting adoption of product innovation processes by more than half of their intended users
- Most important, achieve even higher profit margins from their newer products than other companies (Figure 1)

Figure 1: Margin Advantage for Products Less Than Two Years Old



Source: Aberdeen*Group*, August 2006

Recommendations for Action

To improve product portfolio management, and, therefore, product profitability, companies should evaluate their processes and enabling technology to ensure they effectively accomplish the following:

- Evaluate business processes to ensure that common, objective criteria are being used to value, select, and manage product portfolio processes and direct portfolio decisions
- Standardize portfolio processes, and expand their use to a larger percentage of those involved in the product innovation process
- Coordinate product portfolio management across the enterprise
- Measure product value and portfolio performance on a frequent basis, spanning both portfolio planning and product development execution processes
- Look for enabling technology that can help deliver standard best practices and enable product portfolio management processes to be standardized and scaled to a larger community of users

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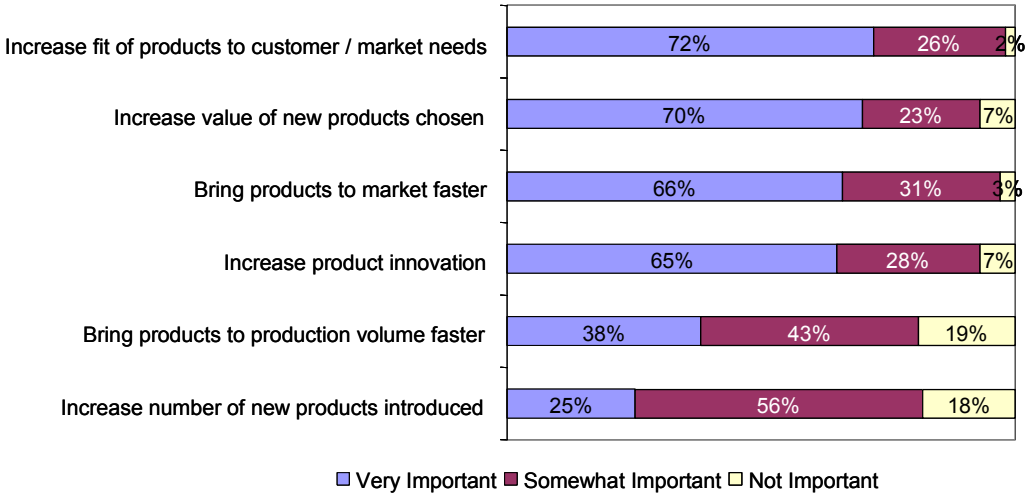
Chapter One:
Issue at Hand

Key Takeaways

- Seeking profitable growth, manufacturers target products that better fit customer needs and better selection of the most valuable products for their product portfolios.
- Significant margin advantages are available for "new" products, those that have been on the market for less than two years.
- Despite the value available, most companies fail to achieve their revenue targets for products in their product portfolio.

AberdeenGroup benchmarks indicate that companies are aggressively seeking top-line growth through product innovation. To achieve this, companies seek to maximize the value of their collection of current and potential commercial product offerings, or "product portfolios." Benchmarks from *The Product Innovation Agenda* research identify the top actions companies view as important to improving top-line revenue (Figure 2) are strongly related to portfolio performance. The top actions indicate that portfolio-related improvements are high priorities for growth.

Figure 2: Top Actions Pursued for Revenue Growth

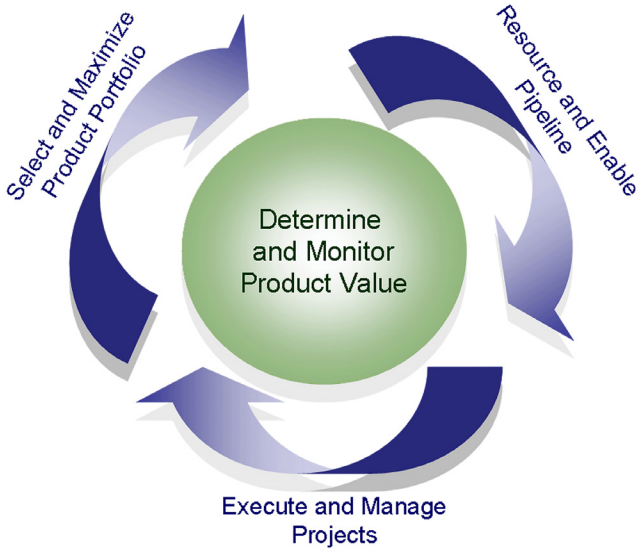


Source: AberdeenGroup, September 2005

The Product Portfolio Management Framework

There are a number of opportunities to improve product portfolio management performance. Profiting from product portfolios requires the ability to successfully execute several processes, as represented by AberdeenGroup's product portfolio management framework (Figure 3). A successful product portfolio management initiative may target improvements to one or more of the following processes:

Figure 3: Product Portfolio Management Framework



Source: Aberdeen*Group*, July 2006

Select and Maximize Product Portfolio

Portfolio management helps companies formalize and improve the selection of new product development opportunities and ensure they are aligned with corporate strategy. Done properly, portfolio planning can help companies focus their resources on the products that will provide the highest value while accounting for the risk and uncertainty inherent in bringing new products to market.

Resource and Enable Pipeline

Even if the right products are chosen, they must still be enabled for success. If too many projects are launched and resources are stretched too thin, all projects will suffer. Ensuring that the right resources are available for projects and balancing the workload against capacity are critical. While some companies assume fixed capacity and investment, others may also explore "what if" scenarios to determine what the ideal investment in people and other processes might be.

Execute and Manage Projects

Given the right product targets and resources, companies should be able to hit their product development targets. This does not happen without significant oversight and continuous monitoring. Particularly with current cross-departmental, multi-enterprise, cross-geography product development approaches and tight product introduction timeframes, excellence in project execution is both challenging and highly important to recognizing product profitability.

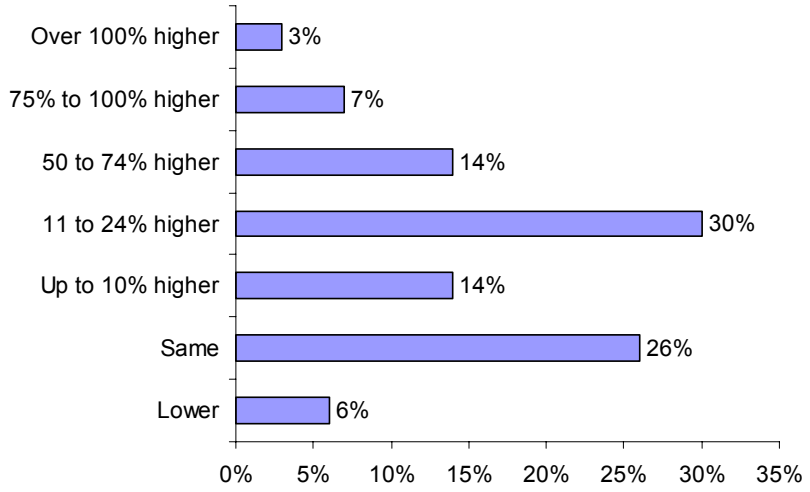
Determine and Monitor Product Value

Throughout the new product development process, companies must focus on the value being generated for the company. Many companies develop return on investment (ROI) or net present value (NPV) models for new products in order to justify them or consider them in their portfolio. Aberdeen believes that few, however, take advantage of the opportunity to focus on this throughout the process as changes in project and market dynamics – which might degrade (or enhance) the value of the product – occur. A continuing evaluation of the product development project can help companies make good up front decisions, but also can ensure that the expected value is still available from the project as it progresses.

The Product Portfolio Value Gap

One opportunity for improvement is to address "the product portfolio value gap." The potential value of defining and executing the right product portfolio is significant, but many companies regularly fail to realize the full potential available from their portfolios. Too frequently, inadequately defined portfolios and poor project execution drain value from products. As an example, many companies that execute product development projects successfully gain a margin advantage from newer products (Figure 4). Benchmarks indicate that the majority of companies command at least 11% higher margins on products that have been on the market for less than two years, with almost a quarter realizing margins 50% or higher for newer products.

Figure 4: Margin Advantage for Product Less Than Two Years Old



Source: Aberdeen*Group*, August 2006

Unfortunately, many companies can't take as much advantage of enhanced margins for newer products because they have difficulty meeting their product development targets (Table 1). Aberdeen*Group* segregates companies into three distinct performance categories based on their ability to hit their product development targets. (See the Competitive

Framework Key below.) Average companies meet launch dates and revenue targets for new products on less than 80% of their products, and on as little as 40%, and are, therefore, not realizing the potential of their product portfolios.

Table 1: Ability to Meet Product Development Targets

	Best in Class	Industry Average	Laggards
Revenue	80-100%	40-79%	0-39%
Launch Dates	80-100%	20-79%	0-19%
Product Development Cost	80-100%	30-79%	0-29%
Product Cost	80-100%	40-79%	0-39%
Product Quality	90-100%	50-89%	0-49%

Source: Aberdeen*Group*, September 2005

Product failures are costly in terms of direct cost and opportunity cost, as the company may cede the margin advantage to a competitor that operates at a higher level of maturity. Consequently, reducing failure is a common objective of product portfolio management strategies. But project failure is only one aspect of portfolio weakness. A strong portfolio must not only minimize failures, but instead maximize potential value, taking into account an acceptable level of risk. In fact, companies that are pursuing product portfolio management strategies most frequently cite growth as the reason behind their investment (Figure 5). This driver is closely followed by the desire to optimize limited resources, aimed at ensuring that product development projects can be properly resourced so that they can achieve their goals efficiently and effectively.

Competitive Framework Key

The Aberdeen Competitive Framework defines enterprises as falling into one of the three following levels of practices and performance:

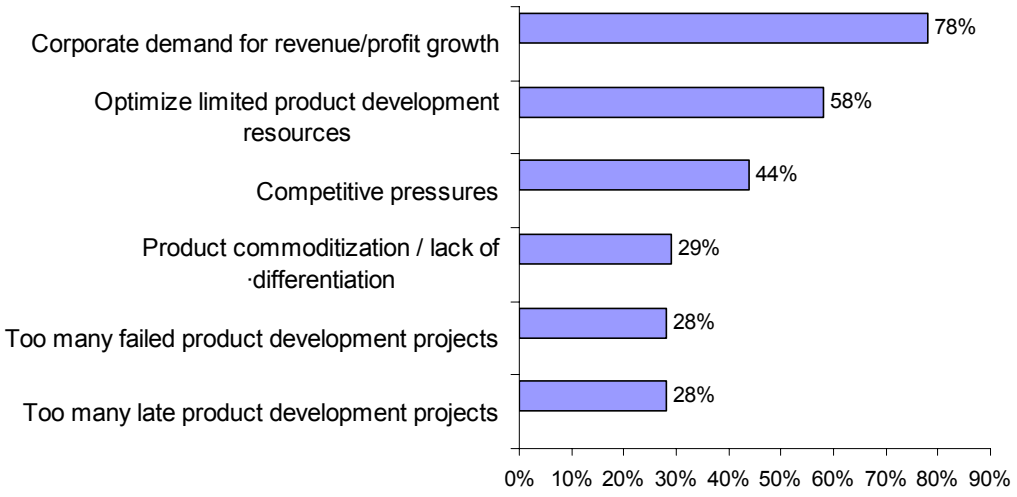
Laggards (30%) —practices that are significantly behind the average of the industry

Industry norm (50%) — practices that represent the average or norm

Best in class (20%) — practices that are the best currently being employed and significantly superior to the industry norm

Given the potential value of enhanced portfolio performance and the relatively poor performance in new product development by many companies, there is clearly room for improvement. Benchmarks indicate that to improve their businesses companies are turning to project-oriented enablers such as project management, product data management, and collaboration technologies. *The Product Innovation Agenda Benchmark Report*, however, highlights a disconnect between the top actions being pursued for growth – namely "increasing fit of products to customer and market needs" and "increasing value of new products chosen" – and the use of product portfolio management solutions that are designed to enable these exact actions. This disconnect indicates a potential opportunity for companies to significantly improve their product innovation performance through the use of enabling portfolio management technology.

Figure 5: Top Drivers to Improve Product Portfolio Management



Source: Aberdeen*Group*, August 2006

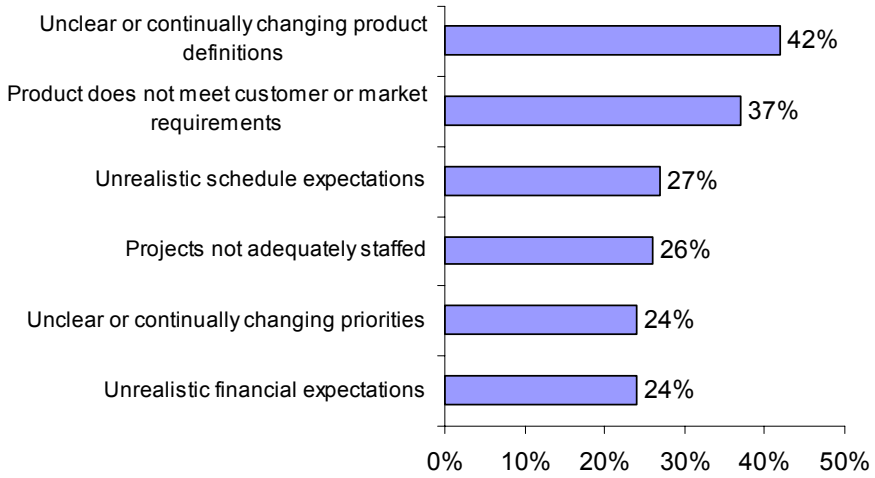
Chapter Two:
Key Business Value Findings

Key Takeaways

- Most product failures can be attributed to self-inflicted problems – processes that lead to poor performance.
- Companies find that their greatest challenges are properly valuing product opportunities and making objective portfolio management decisions.
- Most companies are focusing on project execution as opposed to portfolio decision-making, despite having identified challenges in choosing and maximizing product portfolio value.

Given the large gap between the winners and the losers and the importance of improving product portfolios, it is important to understand why products fail to meet targets. Product failure, for the purposes of this report, is defined as products that are not launched or launched products that significantly fall below revenue, market share, or profit targets. So why do products fail? Most product failures are self-inflicted. Study participants indicated that the most frequent reasons for failure are due to internal issues (Figure 6) such as poorly defined product requirements or changing priorities. Poor planning, such as inadequate staffing and unrealistic expectations, also account for a significant number of failures. These problems indicate a higher level issue than can be effectively solved by improving project execution and task management.

Figure 6: Top Reasons for Product Failure

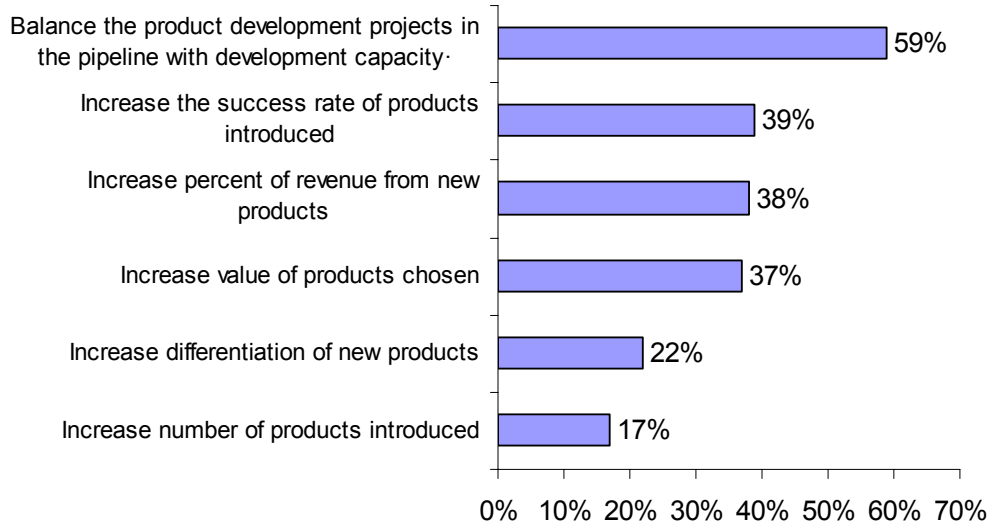


Source: AberdeenGroup, August 2006

Actions Taken to Improve Product Portfolio Performance

Given the gap, companies are trying to act to address their portfolio management weaknesses. The ways they are trying to improve their product portfolios align well with overall portfolio management goals (Figure 7). One of the key actions for improvement identified is balancing the load of product development projects with available capacity. Many companies suffer from overloaded product development projects or "project clutter." This scenario results when too many projects are executed at same time, so that resources spend more time juggling their workload than completing their projects. This typically results in all projects slowing down and missing targets. Implementing this bridge between portfolio planning and product development project execution can help to improve the throughput of product development projects and is an area that shows significant room for improvement in most companies.

Figure 7: Top Actions Taken to Improve Product Portfolios



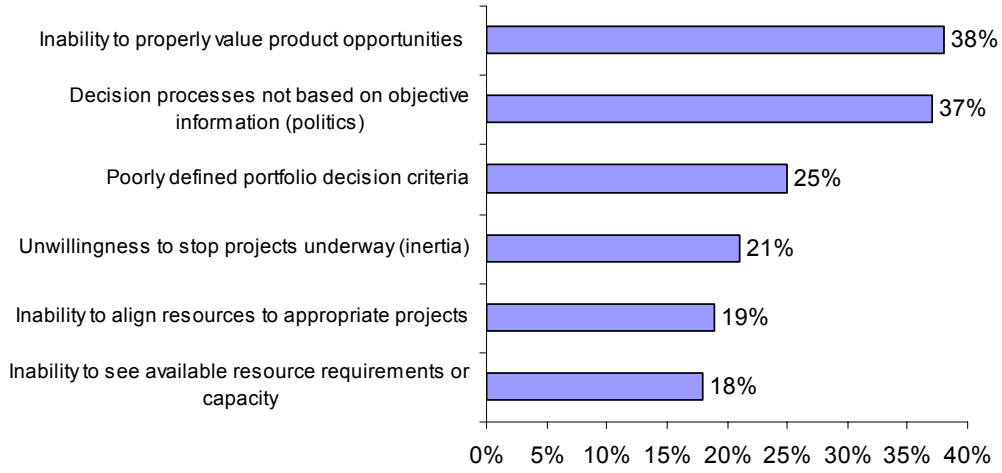
Source: Aberdeen*Group*, August 2006

Challenges Faced in Improving Product Portfolio Performance

A number of challenges confront companies trying to improve their product portfolios. In the same way that product failures are frequently self-inflicted, many of the challenges faced in improving product portfolios are due to corporate politics and poor processes (Figure 8). Despite the fact that these challenges are internal, they are still significant. As an example, product portfolio decisions are very frequently not based on objective information. Part of this is politics, because of the many people that are involved in bringing new products to market and the importance of new products to the business. Fueling this problem is the lack of objective information available, as seen in the number one challenge – inability to properly value product opportunities. Many factors influence the

value potential of a product, and without good information people will develop opinions based on what they know and past experience.

Figure 8: Top Challenges in Improving Product Portfolio Management



Source: Aberdeen*Group*, August 2006

Another challenge is project momentum. Companies are often reluctant to stop projects underway. This problem is intensified by another underlying problem: poor ability to value product opportunities. Without a common, trusted understanding of value, decisions become subjective. Couple this with poorly defined decision criteria – a common issue – and the stage is set for inertia and politics to reign supreme in portfolio decision-making.

In addressing these challenges, most companies have first focused on improving the execution of product development projects (Figure 9). Frequently, companies will follow a maturation process in which they will focus on improving product development processes first. Then, with these processes in control, they will advance to improving the portfolio selection or pipeline management processes. The findings from this study show that there is a high emphasis on project-oriented improvements, but also that attention is being paid to improving higher level process improvement as well.

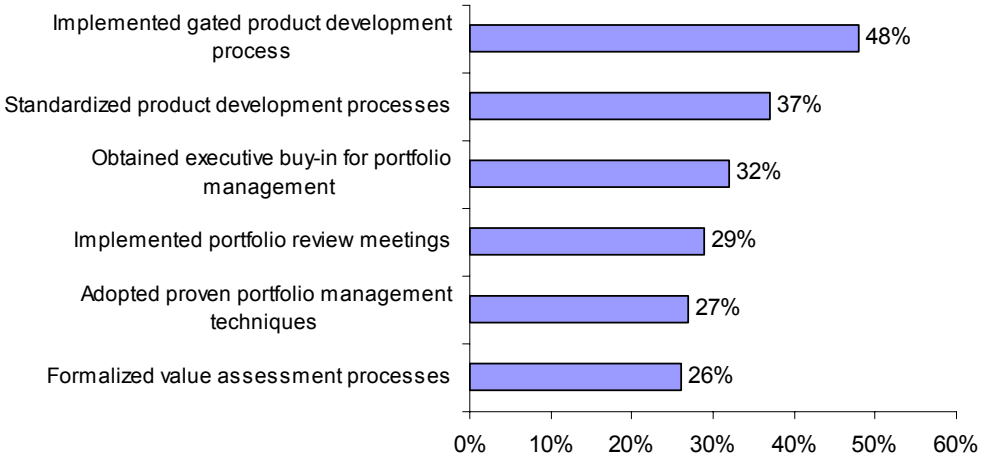
Beyond improving product selection and execution processes, a smaller number of companies are focusing on improving the process of determining true product value. As stated earlier, determining product value is a top challenge for many companies. Predicting potential value can include weighing many factors including:

- Revenue potential
- Competitive assessment
- Market assessment
- Value of project (such as net present value, return on investment, internal rate of return)

- Technical risk
- Product development risk (including legal, regulatory risk)
- Commercial risk
- Fixed capacity/assets (for asset-intensive industries)

Determining product value requires the ability to analyze this information to develop a consistent definition of value that can be compared across products and product lines. Moreover, processes must be put in place to determine how to quantify risk and uncertainty in an objective way. Processes to quantify risk and uncertainty are important not just for calculating a value for the product, but for developing the parameters of the analysis in a way that builds consensus and buy-in to help combat politics with valid, trusted information.

Figure 9: Overcoming Challenges in Improving Product Portfolio Management

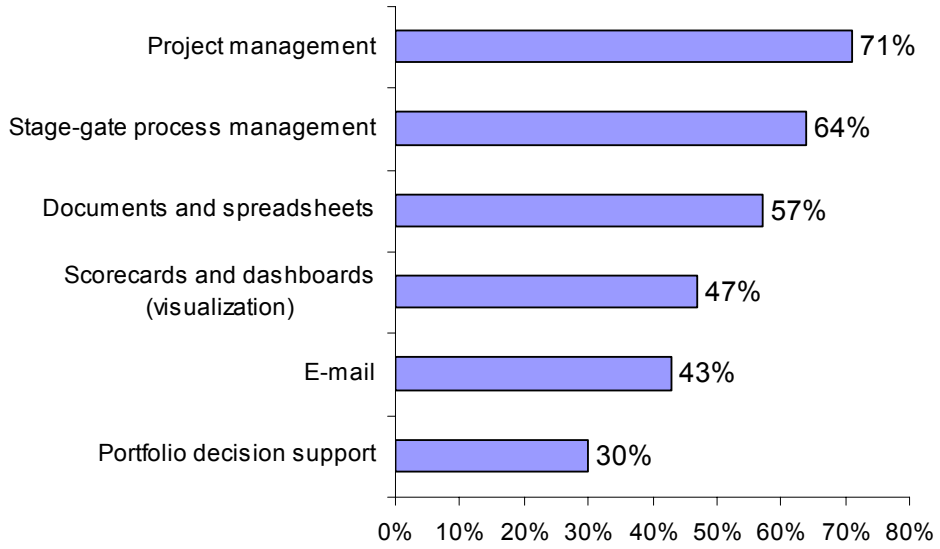


Source: Aberdeen*Group*, August 2006

Technical Enablers to Improve Product Portfolio Performance

Similar to process improvements being undertaken, the investments that companies have made in enabling technology for product portfolio management are slanted towards project-focused improvements (Figure 10). As mentioned earlier, many companies believe that they must get project management functions under control before investing in higher level functions. While there are some arguments for this approach, solutions such as portfolio decision support and resource planning can provide value in parallel with project-oriented improvements or even serve as a first step. By reducing clutter and improving the product development pipeline, for example, companies will have fewer projects and conflicts to manage – easing the load on project management functions. Both approaches can provide value, however, depending on which areas for improvement are targeted first.

Figure 10: Technical Enablers Employed for Product Portfolio Management



Source: Aberdeen*Group*, August 2006

One notable finding is the heavy usage of documents and spreadsheets in the product portfolio management process, particularly for making portfolio decisions. Many companies have developed custom spreadsheets that help to compare product opportunities and balance investments with capacity. Customer interviews indicate that many of these companies are moving towards packaged portfolio management applications. Packaged applications offer the benefit of scalability, particularly for addressing large user communities and for speeding data gathering efforts, which are both characteristics of best in class performers (as discussed in Chapter 3, "Implications and Analysis"). In addition, packaged applications now incorporate significant process expertise that can be used to more rapidly implement process improvements without reinventing processes from scratch. The maturation of product portfolio management processes will lead to increased use of packaged applications in addition to, or instead of, the spreadsheets that are common in many businesses today.

It is clear that significant attention has been paid to improving product development performance. The benefits of improved project execution provide tangible value and should be targeted. These improvements are important, but are also very common. To achieve better-than-average returns, companies must go beyond improving product execution to improving higher level portfolio functions such as selecting the most valuable products, managing the pipeline better, and assessing and monitoring product value.

Chapter Three:
Implications & Analysis

Key Takeaways

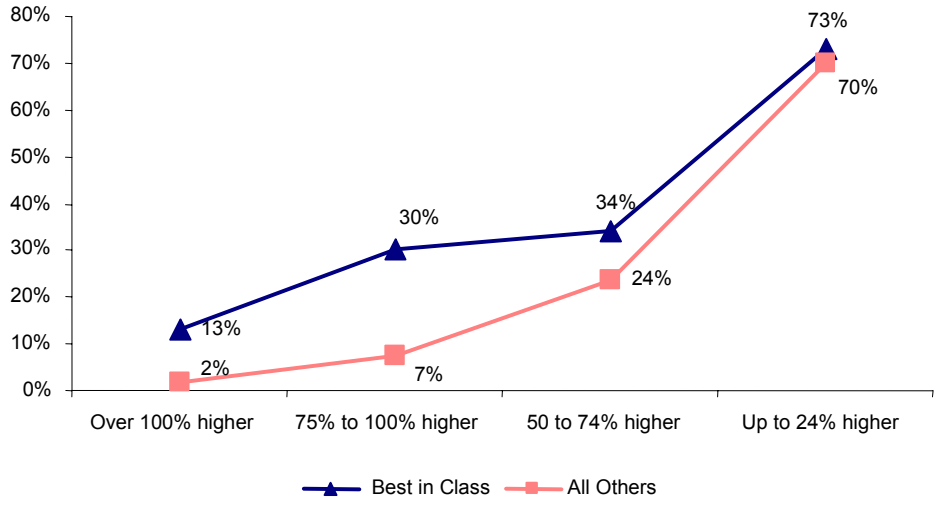
- Best-in-class product development companies have been pursuing portfolio management more frequently than lower-performing companies and have been at it longer.
- Best in class companies have more standardized processes and higher levels of adoption of product portfolio management processes by their product development users.
- Best in class manufacturers consider more factors when maximizing value and balancing product portfolios.
- Best in class companies are using more technology for managing product portfolios, although many are not taking advantage of best practices captured in leading product portfolio management solutions.

AberdeenGroup analyzed the performance of survey participants to determine which approaches, capabilities, and enablers are being employed more commonly by top performers. Combining Aberdeen's PACE and Competitive Frameworks allows Aberdeen to make recommendations to lower performing companies based on the approaches used by top performers. For more detail on Aberdeen's research methodology, please see Appendix B. Based on the responses from survey participants, a number of commonalities were identified in the top, or "best in class," performers.

Best in Class Recognize Additional Margin Advantage

As great as the margin advantage of new products is for all companies in general (Figure 1, "Executive Summary"), the best in class see even greater margin advantages for products that are new to the market (Figure 1, repeated below as Figure 11). This superior margin advantage probably comes from choosing and developing products that are more highly valued by customers because of their new capabilities, fit to customer preferences, or speed to market. Benchmark analysis indicates that companies that are best in class at portfolio management are four times more likely to achieve margin advantages of 75% or higher for products on the market for less than two years. Top performers in product portfolio management have a clear competitive advantage in the form of significantly higher profit margins on new products. In short, improving product portfolio management improves product profitability.

Figure 11: Best in Class Margin Advantage for Products Less Than Two Years Old

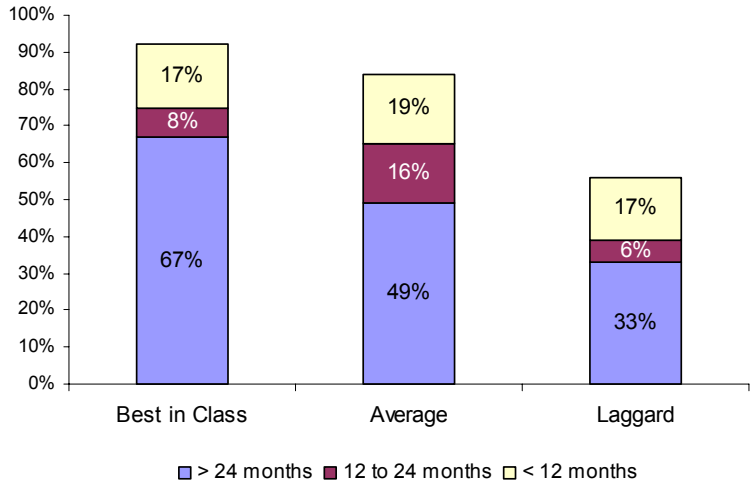


Source: AberdeenGroup, August 2006

Best in Class Focus on Product Portfolio Management

To better understand what leads to better portfolio performance – and higher profit margins – Aberdeen analyzed the processes by which companies operate. The first notable difference in top-performing companies is that they are more likely than lower-performing companies to have pursued portfolio management strategies (Figure 12). Based on this finding, it is clear that product portfolio management leads to enhanced product innovation performance and profitability. In addition to pursuing portfolio management more frequently, the top performers have also been pursuing portfolio management for longer periods of time, with two-thirds of best in class performers reporting active product portfolio management efforts for two years or longer.

Figure 12: Longevity of Product Portfolio Management Pursuit

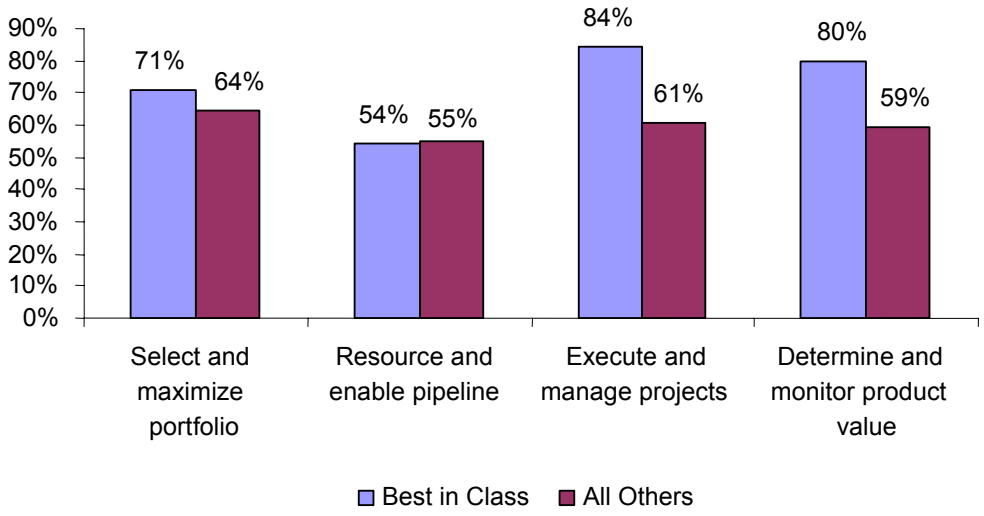


Source: AberdeenGroup, August 2006

Best in Class Standardize and Expand Processes

Another significant difference in top-performing companies is that they tend to have more standardized portfolio management processes (Figure 13). In fact, leading companies have standardized more in almost every aspect of portfolio management. Standardization has multiple benefits. First, it can enable performance measurement and process improvements. Second, standardized practices can incorporate best practices and lessons learned from across the enterprise. Many packaged applications are also delivered with templates the provide industry best practices that can be adopted or tailored to address unique requirements.

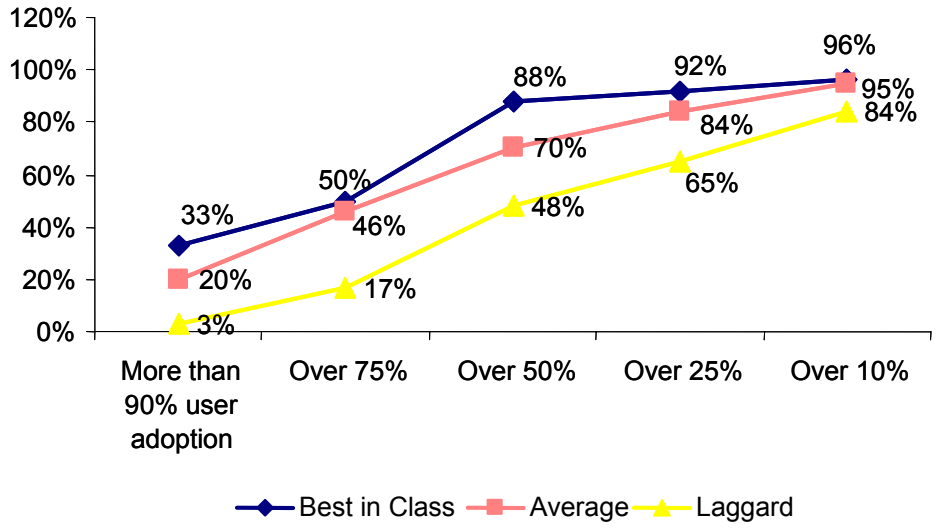
Figure 13: Standardization of Product Portfolio Processes



Source: Aberdeen*Group*, August 2006

Beyond standardization, leading companies have also deployed their processes and solutions to a broader percentage of participants in the product development and product portfolio management processes (Figure 14). Product innovation involves contributions from multiple people and departments from data gathering, through decision making, resource management, and project execution. More participation leads to better information and more buy-in from involved parties.

Figure 14: Adoption of Innovation Processes

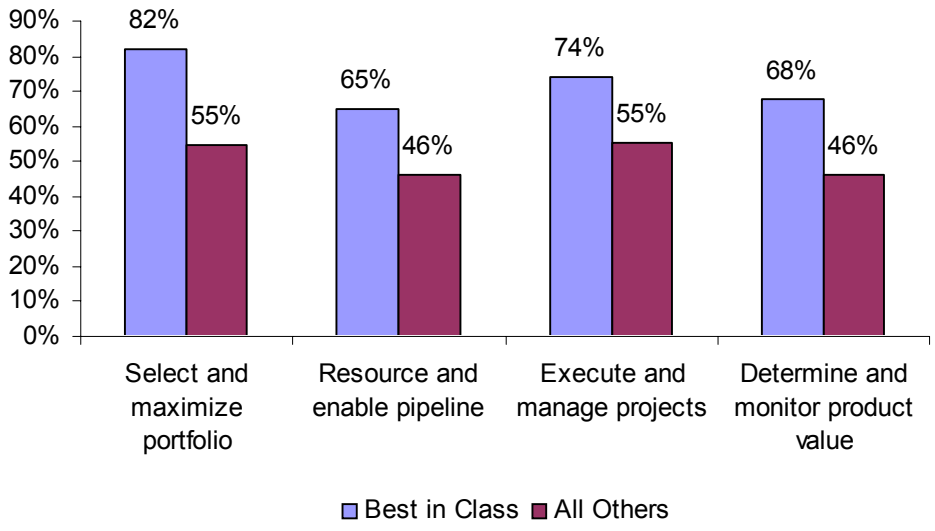


Source: Aberdeen*Group*, August 2006

Best in Class Coordinate Enterprise-wide

In addition to standardizing processes across the enterprise, best in class companies are also much more likely to have coordinated portfolio processes centrally (Figure 15). While fully centralized *control* is not apparent in most of the leading performers, centralized *coordination* is prevalent. This leads to the conclusion that distributed control is an effective model when combined with visibility and coordination from a central perspective. This finding supports earlier findings from Aberdeen's *Product Innovation Agenda*, which indicate that best in class companies are more likely to have a centralized approach to product innovation, with three quarters having, at least, centralized coordination, if not centralized control.

Figure 15: Centralized Coordination of Product Portfolio Processes

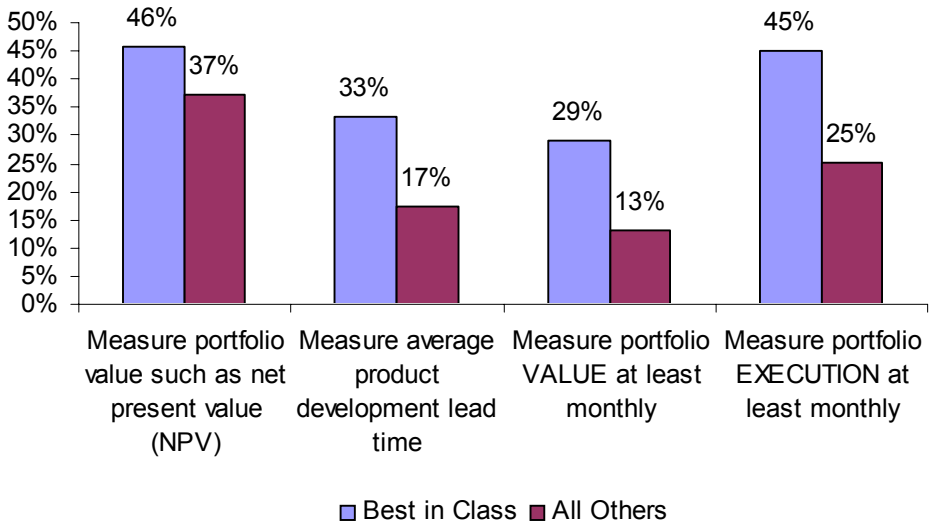


Source: Aberdeen*Group*, August 2006

Best in Class Measure Performance More Frequently

Best in class companies are also differentiated by their choice of key performance indicators (KPIs) measured and frequent measurement of these indicators (Figure 16). The metrics most commonly measured – such as net present value (NPV) and average product development lead time – support choosing valuable products and getting them to market rapidly. Despite challenges in measuring potential product values, leading companies are more likely to measure portfolio value, and do so on a more frequent basis. Top performers, in particular, are twice as likely to measure portfolio value on, at least, a monthly basis than their poorer performing peers.

Figure 16: Product Portfolio Management Performance Measurement



Source: Aberdeen*Group*, August 2006

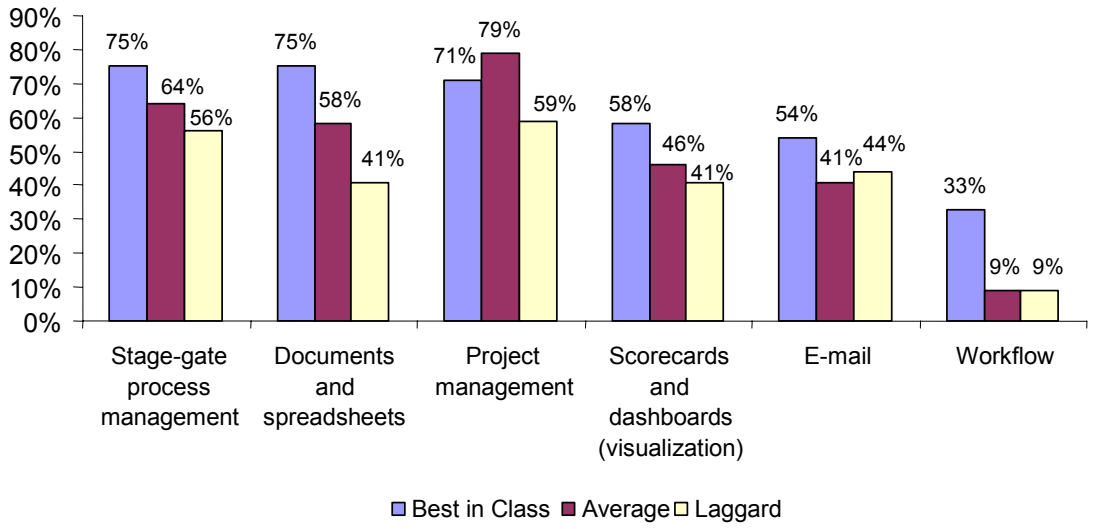
Best in Class Use of Automation

Best in class companies also use more technology to manage product portfolios than their lower performing competition (Figure 17). Technology allows companies to implement and enforce common processes, helps gather information required to analyze key performance indicators, facilitates greater collaboration, and increases the efficiency of processes. A large percentage of companies have implemented project-oriented solutions to execute product development stages and gates and manage projects. Even common solutions such as office productivity tools (i.e., documents, spreadsheets, e-mail) are more commonly used to enable product portfolio management processes in leading companies than in their lower performing peers.

Solutions providing value include scorecards and visualization technologies. Best in class companies often make complex decisions by using visual frameworks that help the decision-makers view the important information in different forms, for example, "bubble charts," which are commonly used in making portfolio tradeoffs.

Benchmark results also reveal lower technology adoption rates for the higher level functions of product portfolio management – such as pipeline management, portfolio selection, and value assessment – indicating an opportunity for companies to move from "do it yourself" projects to more scalable, easily supported packaged applications. Interviews with customers indicate growing adoption of packaged product portfolio management solutions as processes mature and companies look to make additional improvements.

Figure 17: Best in Class Use of Technology for Product Portfolio Management



Source: Aberdeen*Group*, August 2006

Other factors point to an increased need for product portfolio management technology. As reported earlier, leading companies have expanded their product portfolio management processes to a larger percentage of their product innovation participants. Spreadsheets and documents are not designed to support multiple users working concurrently. As processes expand to incorporate more functions and users, spreadsheets and documents will fail to scale appropriately.

For example, leading companies take more product parameters into account in order to maximize their portfolio (Table 2). Gathering this information and analyzing it across multiple product opportunities can prove challenging for companies. Developing this information in a collaborative way requires greater participation by multiple parties, driving a need for automation.

Table 2: Best in Class Parameters Considered in Product Portfolio Management

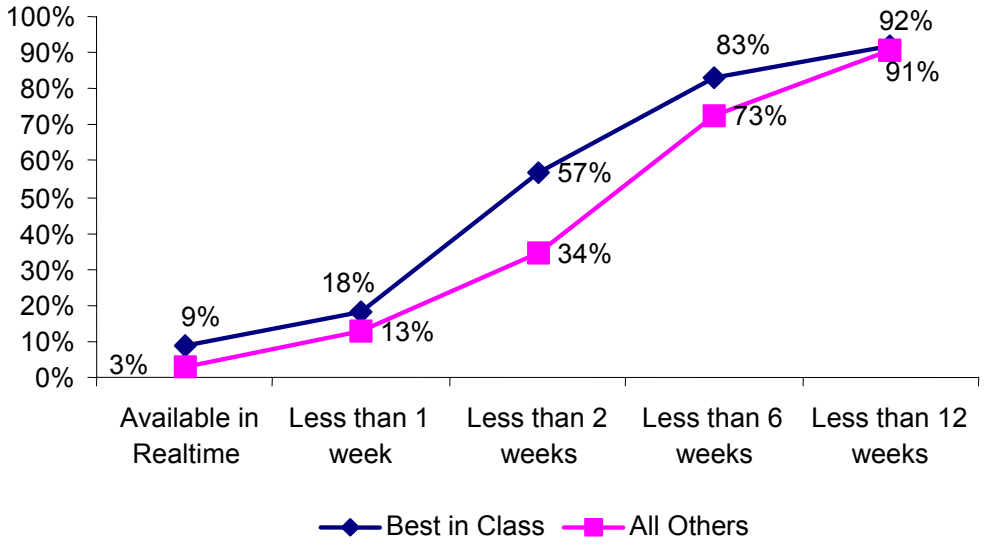
	Best in Class	Industry Average	Laggards
Revenue potential	92%	84%	76%
Competitive assessment	83%	64%	68%
Market assessment	79%	68%	56%
Value of project	75%	71%	47%
Product development risk	67%	57%	44%
Technical risk	63%	63%	44%

	Best in Class	Industry Average	Laggards
Commercial risk	58%	46%	32%
Fixed capacity / assets	50%	24%	29%

Source: AberdeenGroup, August 2006

In addition, leading performers in product portfolio management have more timely data. These companies can pull together the required information for their portfolio analysis much more rapidly, resulting in more timely decisions with less resource overhead (Figure 18). Best in class companies, in particular, are about 75% more likely to be able to collect product portfolio data in less than two weeks and over two times more likely to have portfolio data available in real time. Automation plays a key role in the collection and analysis of this data, and as companies seek more timely data they will likely find their spreadsheet- and document-based approaches inadequate.

Figure 18: Best in Class Time to Collect Product Portfolio Data



Source: AberdeenGroup, August 2006

This benchmark confirms the gap between the current adoption of product portfolio management solutions and the large opportunity for improvement that companies face, indicating a tremendous advantage available for companies that invest in improving portfolio management processes and enabling technology.

Chapter Four: Recommendations for Action

Key Takeaways

- Evaluate business processes to ensure that common, objective criteria are being used to value, select, and manage product portfolio and direct portfolio decisions.
- Standardize portfolio processes and expand the use of portfolio management processes to a larger percentage of users in the product innovation process.
- Coordinate product portfolio management across the enterprise.
- Measure product value and portfolio performance on a frequent basis, spanning both portfolio planning and product development execution.
- Look for enabling technology that can help deliver standard best practices and enable standardization and scaling of product portfolio management processes to a larger community of users.

Improving product portfolio management performance starts with process change. Good processes are important to most functions, but interviews and benchmark data both confirm a significantly higher reliance on good process for portfolio-related improvements. Technology should be applied to capture, enforce, extend, and facilitate the process, but automating a bad product portfolio management process will most likely provide lackluster results, at best. Even with technology adoption, a high priority should be placed on a vendor's process knowledge in addition to its available technology.

Companies should focus on portfolio processes based on organizational maturity, need, and opportunity for improvement, considering better selection of product opportunities, improved product development pipeline management, improved project execution, or better assessment and monitoring of product value. Whether a company is trying to gradually move its product portfolio management performance from "Laggard" to "Industry Average," or "Industry Average" to "Best in Class," the following actions will help spur the necessary performance improvements:

Laggard Steps to Success

1. *Develop organizational buy-in and support for improving product portfolio management, and work towards common processes and objective decision-making criteria.*

   Without executive buy-in for portfolio management processes, initiatives and process improvements will fail to deliver positive results. The political and organizational influence over portfolio decisions is very strong, and without top-level support inertia and corporate politics will continue to play an overarching role in making decisions.

2. *Develop and implement processes to measure product value and portfolio performance.*

Leading companies measure product performance and product value more frequently than other companies. Develop programs for measuring metrics such as new product development lead time, as well as approaches for determining the value of individual product opportunities based on market potential and the likelihood of achieving that potential, given the risk and uncertainty of product development.

3. *Adopt enabling technology that provides a blueprint for best-practice product portfolio management processes.*

   While automation alone will certainly not improve product portfolio performance, laggard companies can benefit from the implementation of standard, best-practice processes that are commonly found in template format within leading portfolio management solutions. Implementing new processes with underlying technology can help to introduce and enforce new processes and reduce the manual effort required to develop portfolio data.

Industry Average Steps to Success

1. *Develop and document portfolio and stage-gate decision-making criteria and ensure decisions are based on objective information.*

   Reduce the likelihood of political pressure by developing an agreed-upon set of decision-making criteria for portfolio decisions in portfolio planning, pipeline management, and project execution.

2. *Extend adoption of standard, best-practice processes to more members of the product innovation process.*

   Best in class companies have extended their product portfolio management processes to a larger percentage of the product development team. Look for ways to further the adoption of best-practice processes to improve performance and gain organizational leverage from standardization.

3. *Enhance processes to measure product value and portfolio performance, measuring these key performance indicators more frequently to ensure product value is being achieved.*

   Best in class companies measure metrics more frequently than others, confirming past benchmarks that indicate that measured processes provide better results. Specific metrics measured by leading companies reflect the overall goals for product portfolio management, specifically developing valuable products and bringing them to market quickly. Timely collection and review of these metrics provides the opportunity to detect and address problems – such as failing projects – earlier to save direct expense and ensure limited resources are focused on delivering corporate value.

4. *Adopt or expand enabling technology that provides and facilitates best-practice product portfolio management processes, looking for methods to speed the collection and analysis of product portfolio data.*

   Look for scalable technologies that provide a platform to expand product portfolio management processes to more users across the enterprise. Consider adopting

leading technology solutions that offer best practices as templates to avoid political battles about which existing process is better when moving departments or divisions to a common process.

5. *Expand processes to include more of the processes in the product portfolio framework, integrating processes and data as possible.*

   To mature to best in class performance, average companies should enable a more integrated, full set of processes for product portfolio management, including:

   - Selecting the right products and maximizing the value of product portfolios based on objective, trusted information
   - Providing the proper balance between resources and projects, enabling the product development pipeline by ensuring that all projects are sufficiently staffed, and resources are not overloaded
   - Executing and managing product development projects through stage gate processes to ensure product development projects stay on track from a *schedule and budget* perspective
   - Determining and monitoring the potential value of products and product opportunities (taking into account risk and uncertainty) to make better portfolio decisions, and monitoring the value of products over time to ensure product development projects stay on track from a *product value and profitability* perspective

Best in Class Next Steps

1. *Standardize portfolio and stage-gate decision-making criteria, and coordinate portfolio processes and decisions on an enterprise-wide basis.*

   Standardize objective decision-making criteria for both portfolio planning and product development execution. Also, coordinate the measurement and management of the product portfolio management process across departments and geographies, potentially implementing higher level, product-line portfolios to maximize value, and select a proper balance of products on an enterprise-wide scale.

2. *Enhance processes to measure product value and portfolio performance, focusing on better assessment of product value based on uncertainty and risk.*

   Develop a more in-depth understanding of product value by improving the assessment of product value, by including more factors such as technical risk, commercial risk, and product development risk. Recognize the uncertainties that drive product value and focus on eliminating risk and uncertainty to enhance the potential value of a product opportunity.

Expand enabling technology that provides and facilitates best-practice product portfolio management processes, looking for methods to speed the collection

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Jim Brown leads Aberdeen*Group*'s Global Product Innovation and Engineering research. Its goal is to provide fact-based research and experienced analysis that advises executives on how to achieve maximum product profitability and corporate value by using the right approaches and enabling technology to identify, specify, engineer, develop, and continuously improve innovative, high-value products.

Jim founded research and consulting firm Tech-Clarity, acquired by Aberdeen in May 2005. Tech-Clarity focused on making the value of PLM and enterprise software solutions clear to manufacturing business leaders. Jim began his professional experience with roles in manufacturing engineering and software systems at General Electric before joining Andersen Consulting (Accenture), where he focused on enterprise software applications. He has also served as an executive at several software companies and as the PLM analyst for Technology Evaluation Centers and The PLM Evaluation Center. Jim is a frequent author and speaker on applying software technology to achieve tangible business benefits.

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Appendix A:
Research Methodology

Between July and August 2006, Aberdeen*Group* examined the approaches, strategies, and processes around product portfolio management across the product lifecycle of 153 enterprises in various discrete, process, and consumer industries.

Responding companies completed an online survey that included questions designed to determine the following:

- Key pressures driving companies to implement or improve product portfolio planning and execution.
- The challenges companies face in trying to improve product portfolio management and the actions taken to overcome them.
- Approaches – strategies, actions, processes, organizational structures, and enabling technologies – companies are using to improve product portfolio planning and execution.
- The benefits, if any, that have been derived from these various product portfolio management approaches and how often they are measured.

Aberdeen supplemented this online survey effort with additional emailed questions, gaining more in-depth information on roles and actions involved in product portfolio management.

The study aimed to identify emerging best practices for product portfolio management – both planning and execution – and provide a framework by which readers could assess their own current portfolio management initiatives and future plans.

Responding enterprises included the following:

- ***Job title:*** The research sample included respondents with the following job titles: manager (39%); director (13%); senior vice president or vice president (13%); CEO or other C-level officer (7%), internal consultant (7%), staff (7%), IT leader (1%) and other (4%).
- ***Job function:*** The research sample included respondents from the following functional areas of responsibility: research and development (24%), marketing (20%), business process management (13%), engineering (12%), information technology (6%), manufacturing (5%), sales (5%), logistics/supply chain (4%), and others (including procurement, finance, and customer service) (11%)
- ***Industries:*** Respondents were predominantly from manufacturing industries. At a high level, 39% were in discrete manufacturing, 34% were in process manufacturing, and 27% were in consumer manufacturing. From a more detailed perspective, the industries represented were widely varied. Industries that were more highly represented included food and beverage (13%), chemicals (11%), industrial equipment (9%), consumer durable goods (9%), medical devices (7), and aerospace/defense, automotive, computer equipment and peripherals each at (5%).

- ***Geography:*** Nearly all study respondents were from North America (69%), with other representation from Europe (19%), and Asia Pacific (9%). Remaining respondents were from South/Central America and the Middle East.
- ***Company size:*** About 44% of respondents were from large enterprises (annual revenues above US$1 billion); 41% were from midsize enterprises (annual revenues between $50 million and $1 billion); and 15% of respondents were from small businesses (annual revenues of $50 million or less). In terms of headcount, 47% have more than 2500 employees, 14% have 1001 to 2500 employees, 20% have 251 to 1000 employees, 14% have 51 to 250 employees, and 5 percent have 50 or fewer employees.

Solution providers recognized as sponsors of this report were solicited after the fact and had no substantive influence on the direction of *The Product Portfolio Management Benchmark Report: Targeting, Enabling, and Achieving Maximum Product Value*. Their sponsorship has made it possible for Aberdeen*Group* to make these findings available to readers at no charge.

Table 3: PACE Framework

PACE Key

Aberdeen applies a methodology to benchmark research that evaluates the business pressures, actions, capabilities, and enablers (PACE) that indicate corporate behavior in specific business processes. These terms are defined as follows:

Pressures — external forces that impact an organization's market position, competitiveness, or business operations (e.g., economic, political and regulatory, technology, changing customer preferences, competitive)

Actions — the strategic approaches that an organization takes in response to industry pressures (e.g., align the corporate business model to leverage industry opportunities, such as product/service strategy, target markets, financial strategy, go-to-market, and sales strategy)

Capabilities — the business process competencies required to execute corporate strategy (e.g., skilled people, brand, market positioning, viable products/services, ecosystem partners, financing)

Enablers — the key functionality of technology solutions required to support the organization's enabling business practices (e.g., development platform, applications, network connectivity, user interface, training and support, partner interfaces, data cleansing, and management)

Source: Aberdeen*Group*, August 2006

Table 4: Relationship between PACE and Competitive Framework

PACE and Competitive Framework How They Interact
Aberdeen research indicates that companies that identify the most impactful pressures and take the most transformational and effective actions are most likely to achieve superior performance. The level of competitive performance that a company achieves is strongly determined by the PACE choices that they make and how well they execute.

Source: AberdeenGroup, August 2006

Table 5: Competitive Framework

Competitive Framework Key
The Aberdeen Competitive Framework defines enterprises as falling into one of the three following levels of FIELD SERVICES practices and performance: *Laggards (30%)* — FIELD SERVICES practices that are significantly behind the average of the industry, and result in below average performance *Industry norm (50%)* — FIELD SERVICES practices that represent the average or norm, and result in average industry performance. *Best in class (20%)* — FIELD SERVICES practices that are the best currently being employed and significantly superior to the industry norm, and result in the top industry performance.

Source: AberdeenGroup, August 2006

Appendix B:
Related Aberdeen Research & Tools

Related Aberdeen research that forms a companion or reference to this report includes:

- *The Product Lifecycle Management for Small to Medium-Size Manufacturers Benchmark Report* (March 2006)
- *The Product Innovation Agenda Benchmark Report* (September 2005)
- *New Product Development: Profiting from Innovation* (January 2006)

Information on these and any other Aberdeen publications can be found at www.Aberdeen.com.

About AberdeenGroup

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To be the trusted advisor and business value research destination of choice for the Global Business Executive.

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Aberdeen delivers unbiased, primary research that helps enterprises derive tangible business value from technology-enabled solutions. Through continuous benchmarking and analysis of value chain practices, Aberdeen offers a unique mix of research, tools, and services to help Global Business Executives accomplish the following:

- IMPROVE the financial and competitive position of their business now
- PRIORITIZE operational improvement areas to drive immediate, tangible value to their business
- LEVERAGE information technology for tangible business value.

Aberdeen also offers selected solution providers fact-based tools and services to empower and equip them to accomplish the following:

- CREATE DEMAND, by reaching the right level of executives in companies where their solutions can deliver differentiated results
- ACCELERATE SALES, by accessing executive decision-makers who need a solution and arming the sales team with fact-based differentiation around business impact
- EXPAND CUSTOMERS, by fortifying their value proposition with independent fact-based research and demonstrating installed base proof points

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Founded in 1988, Aberdeen*Group* is the technology-driven research destination of choice for the global business executive. Aberdeen*Group* has over 100,000 research members in over 36 countries around the world that both participate in and direct the most comprehensive technology-driven value chain research in the market. Through its continued fact-based research, benchmarking, and actionable analysis, Aberdeen*Group* offers global business and technology executives a unique mix of actionable research, KPIs, tools, and services.