



The PLM Program

An Incremental Approach to the Strategic Value of PLM



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Introduction

Product Lifecycle Management (PLM) is a business strategy that is beginning to gain wide acceptance. Companies that took an early adopter approach to PLM are beginning to show significant reductions in new product introduction lead times and to benefit from meaningful cost savings. The results from the early pioneers confirm the business value of the concept and point to a bright future for PLM in helping companies capitalize on their product innovations.

What has been interesting about the emerging success stories is how different many of the stories are from one another, even stories from companies that are in the same industry. This is because most companies have adopted an incremental approach to implementing PLM and have been targeting their projects at solving tangible problems that have short-term paybacks for their particular business.

An Incremental Approach to Strategic Value

Beyond just PLM, companies have started to invest in small projects with tangible, high value returns as opposed to major implementation projects with vague returns. This incremental approach is based on the current economic conditions as well as the increasing frustration with low ROI software investments. Only projects with clear objectives and a reasonable scope are being pursued unless they are mandatory for security or regulatory purposes.

PLM is very well suited to this economic climate because it can be implemented with an incremental approach so that each step pays for the next. These projects, however, should not be viewed simply as standalone projects. The incremental PLM projects must be viewed as part of an overall PLM initiative in order for these small projects to result in large, strategic results.



The PLM Program

Every product-centric company should develop a PLM Program to support its PLM initiatives. The PLM Program is laid out as a series of highly valuable, sequenced projects of reasonable scope that provide incremental returns within a short period of time. When viewed as a whole, these projects form a strategic program that will provide the company with highly strategic benefits, while at the same time allowing it to initiate the program with incremental small investments and with minimal risk. Individual projects within the PLM Program should be prioritized and sequenced based on the project's ability to provide tangible results in a short period of time and its capability to support the following steps in the program. Priority should be placed on those projects that provide the highest return that can be achieved within a 6-month project window.

Potential PLM Projects

There are a number of high-return projects that should be considered as a part of the PLM Program. The following examples are taken from the early success stories and provide excellent candidate projects to be selected and sequenced based on the individual company and their objectives. One potential area for initial investment is providing much-needed focus to the product innovation process. Many companies suffer from attempting to execute more product innovation projects at one time than their capacity will allow. One approach to solving this problem is to improve the efficiency of the processes to allow more projects to run concurrently. The other is to reduce the number of projects by focusing on the ones that will provide the best value to the business.

Portfolio Management - Portfolio management tools and techniques allow the company to select the right projects to pursue while reducing resource competition from less strategic projects. This portfolio approach allows the company to complete more projects effectively with the same capacity, simply by reducing the clutter from lower value projects. At the same time, the projects completed will be of higher strategic value to the business. One advantage of the portfolio management approach is that it can be implemented without significant disruption to current processes and systems.



PLM Process Management - Another way to improve the over capacity problem is to improve the throughput of the product innovation process itself. Project management tools and best business practices that involve periodic review and approval, or gates, can provide the company with the ability to better manage their innovation projects so they run more efficiently and have significant reductions in rework. Significant gains have been achieved by automating the innovation and approval processes

Material Rationalization / Strategic Sourcing - Another problem that many companies suffer from is lack of control of material definitions. Many companies have significant redundancies in the raw materials that they buy because designers don't have an easy way to find an existing material definition that will work. This lack of control results in redundant inventory, the inability to take advantage of bulk discounts in purchasing, and potentially even stock out situations when a perfectly applicable material is sitting in inventory. Specification management and product data management tools with parametric search capabilities can be implemented in order to allow designers to search existing items before creating new ones. Strategic sourcing initiatives can leverage these common material definitions to take advantage of larger volume purchases for a smaller number of items.

Design Rationalization - An additional project that can be implemented that takes advantage of the common material definitions from rationalizing materials is a systematic review of existing designs to analyze whether duplicate designs can be rationalized, and to find opportunities to replace materials with less expensive alternatives. In addition, standardization of designs enables more rapid development of similar designs when designing new products.



Collaborative Design - One last potential PLM initiative is reducing time to market by improving the effectiveness of the design process. Some of the potential projects above will likely reduce new product introduction lead-times because projects can be completed more quickly when they are run efficiently and when they are not competing with too many other projects.

In addition to these savings, however, many companies have opportunities to shorten the time it takes to bring a product to market by involving other parties in the design process and sharing product information with them. Many design processes are inefficient and require many design iterations to be passed between internal departments, suppliers and customers. By implementing collaborative processes and tools, companies can share product information internally with "downstream" parties to ensure that the product can be produced efficiently and at a competitive price.

This can be looked at as several separate projects, where a company may decide to focus on involving suppliers in the design process first before involving customers, or to focus first on involving all internal departments in the design process. While some companies may benefit the most simply by putting in cross-functional design teams, others may see higher benefit from involving suppliers or customers in their product designs.

Summary

The bottom line is that companies that have had early success in implementing PLM strategies have decided to start small, but they have also decided to plan for a big ROI. By mapping out their PLM strategies and breaking it down into multiple projects they have been able to quickly adopt new practices that provide a return to the business. These returns can then be invested in further projects that will provide more incremental value and further the company toward their overall PLM goals.



About The Author

Jim Brown has over 15 years of experience in management consulting and application software focused on the manufacturing industries. Jim is a recognized expert in software solutions for manufacturing and has broad knowledge of applying ERP, Product Lifecycle Management, Supply Chain Planning, Supply Chain Execution, and e-business applications to improve business performance. Jim served as an executive for software companies specializing in PLM and process manufacturing solutions before starting his consulting firm, Tech-Clarity Associates. Jim can be reached at jim.brown@tech-clarity.com.

