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**Mike Maguire**  
Vice President  
Supply Chain, PLM, and  
Manufacturing Business  
Development  
SAP

# The Art and Science of Successful Product Introductions

## Avoid the Pitfalls of PLM Deployments

### Did You Know?

- **95%** of new consumer products lose money or just break even, and **52%** of new products fail because they do not reflect customer needs<sup>1</sup>
- **70%** of a product's cost is determined in its R&D cycle – yet many companies do not integrate procurement into R&D<sup>2</sup>
- Year-one revenues from **only 3%** of new brands introduced in the past five years have earned more than \$50 million<sup>3</sup>

*In this article, SAP's Mike Maguire, Vice President of Supply Chain, PLM, and Manufacturing Business Development, offers insights into these issues and proposes strategies to tilt the odds in your favor.*

A new product's success stems from many things, not just good engineering and smart marketing. The failure to realize this has been the fundamental flaw of most product lifecycle management (PLM) solutions and deployments. Under the covers, many PLM applications are disjointed combinations of document management, ideation, and portfolio project management functionality.

The challenge isn't simply innovating new products; it's innovating *and* making them commercially viable. Many new products fail because they were envisioned, designed, and built using insufficient and incomplete data. The success of any new product depends on sales, marketing, global compliance, production, and financial concepts and constraints, among other considerations. Niche or stand-alone PLM solutions lack the circumspect approach that enables you to account for all pertinent factors and phases of a product's design, launch, and life cycle.

<sup>1</sup> "The Product Lifecycle Management Applications Report, 2003-2008," AMR Research (May 2004).

<sup>2</sup> US Department of Defense study.

<sup>3</sup> Information Resources, Inc. (IRI) *New Product Pacesetters*, ProductScan Online, PWC, SAP.

Taking PLM to the next level means that manufacturers must respond more efficiently to opportunities by aligning both their internal and external stakeholders. I call this *intelligent lifecycle innovation*, and a product's complete lifecycle data and process convergence are its keys.

### Link PLM with Other Business Processes

No other manufacturing process requires as much cross-functional integration as PLM. Without this integration, communication breaks down and new product introductions are at risk. Today's PLM solutions must tie in with core business processes. Within any given product life cycle, the following business processes will play some part:

- |                   |                    |                       |
|-------------------|--------------------|-----------------------|
| ▪ Financials      | ▪ Marketing        | ▪ Production planning |
| ▪ Demand planning | ▪ Sales            | ▪ Customer service    |
| ▪ Supply planning | ▪ Compliance       | ▪ Field service       |
| ▪ Procurement     | ▪ Inventory        | ▪ S&OP                |
| ▪ Engineering     | ▪ Order management | ▪ Manufacturing       |
|                   | ▪ Analytics        |                       |

Integration with each of these areas is what powers core PLM capabilities. This is not only the intelligent approach, it is also the most risk-averse. By integrating the PLM process with all internal and external stakeholders, you are much better prepared to drive a product from its earliest

## Inside

The following companies are highlighted in the pages of this Special Feature:

- 3 | **SEAL Systems, Inc.**  
It's the Output That Counts
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Intellectual Property, Welcome to the Enterprise
- 6 | **TechniData America**  
EH&S Solutions from SAP and TechniData

# Drive Product Innovation Through mySAP PLM | SAP INSIDER

mySAP PLM will give you the tools to avoid pitfalls that can lead to product failure. But it is up to you to apply those tools carefully.

**FIGURE 1** ▼ mySAP PLM addresses the top business challenges manufacturers face

design and prototype through production and large-volume sales. These phases of a product's life cycle touch all business processes; the real power of a PLM solution is the degree to which it integrates with and draws from all of them.

We've designed mySAP PLM from the ground up precisely for this type of integration, which is important now and will become even more so given the current business challenges manufacturers face (see **Figure 1**).

## After Integrating PLM, Then What?

What follows is advice to help you innovate products, ensure commercial viability, and keep production costs low.

**Engage all key stakeholders from the beginning.** It is very expensive to usher a product from concept to market. You'll want to pull the plug as soon as possible on products

that won't ultimately succeed, so engage all key stakeholders in your production process from the outset. The earlier you consider customer preferences, regional issues and regulations, and inventory and manufacturing concerns, the better. This is of particular importance to mid-sized companies, which can make it or break it based on the success of just a few products each season. To this end, I urge you to maintain a single repository for product data, analysis, and insights, and to engage in rigorous, cross-organizational review processes to separate the winners from the losers.

**Standardize the processes you use to make go and no-go decisions.** Use a phase-based approach, with reviews at the end of each phase. For each review, there should be a clear list of deliverables and well-defined decision criteria for entering the next phase. For example, before engineering starts working on the development of new product at full speed (during the detailed design phase), it should be clear that the concept of the new product fits the company's portfolio and market, and that any regulatory requirements are fulfilled.

**Put controls in place to catch mistakes early.** Mistakes made early, but not identified until later in the PLM process, amplify as they pass through each phase of development. For example, failure to sufficiently check the compliance of a new design with your company's manufacturing execution capabilities can result in huge conformation costs. That is why the whole new product development and introduction (NPDI) process – from ideation to product launch – should be monitored by regular reviews.

**Realize that product development often lacks process control.** To remedy this, you should use workflow capabilities to drive the whole process and offer all involved persons analytic insight into the key indicators they need to make the right decisions in their daily work – to stay on budget or adhere to regulations, for example.

Intelligently establishing the environment for innovation across a product's complete life cycle can be challenging, since you are forced to bring a lot of parties, processes, and information together. To achieve intelligent lifecycle innovation, you need to execute the associated business processes in an integrated fashion and establish one version of the truth. mySAP PLM eases this task, thanks to its capability to integrate with the business processes covered by mySAP ERP, mySAP CRM, mySAP SCM, and mySAP SRM. mySAP PLM empowers you to intelligently manage product innovation so you can reduce time-to-market and increase revenue and company growth. ■

Business Challenges	mySAP PLM Capabilities
<b>Efficiency</b>	
Cost reductions	Product Costing, Strategic Sourcing
Process optimization	Change Management, Workflow
Analysis	Business Intelligence
Responsiveness	Product and Portfolio Management
<b>Differentiation</b>	
Faster time-to-market	Development Collaboration, Strategic Sourcing
Product innovation	Idea Management, Concept Development
Data consistency and quality	Lifecycle Data Management
<b>Compliance</b>	
Legal regulations	Workers Health and Safety
Environmental regulations	Hazardous Tracking, Product Stewardship, Dangerous Goods, Waste Management
Quality standards	Quality Engineering and Improvement, Audit Management
<b>Alignment</b>	
Disconnected design and supply chains	Development Collaboration, Strategic Sourcing
Information silos	Tight integration to ERP, SCM, SRM, CRM, Manufacturing
Globally extended environments	Development Collaboration, Document Management, Globalization