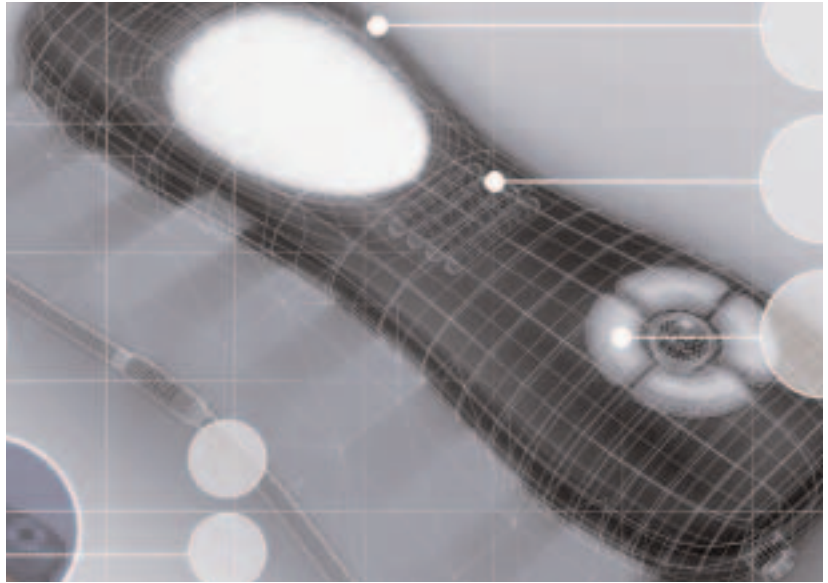


## Profitable Innovation in High Tech

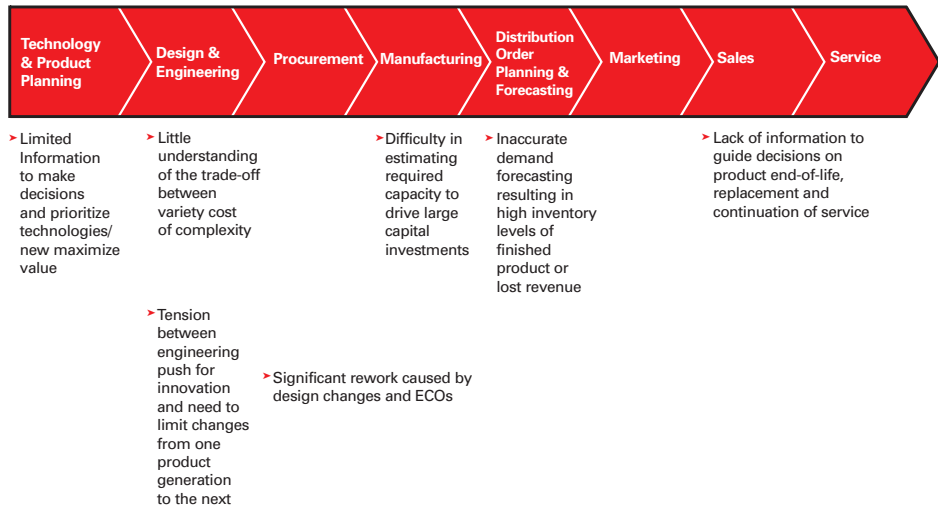
Innovate to Compete, Innovate Profitably to Win.



## CHALLENGES IN HIGH TECH

As Moore's laws hold fast and the average lifetime of technology products continues to shrink, high tech companies face the constant need to innovate to stay competitive. The race to market has intensified, and technology companies must constantly balance the tradeoff between product performance and speed to market. A company's ability to consistently produce profitable innovation will separate the winners from the pack in this competitive market environment.

### HIGH TECH VALUE CHAIN AND CHALLENGES



### Optimizing Product and Project Portfolios

Faced with thousands of potential projects, high tech companies confront significant challenges in identifying those projects with the highest potential and allocating their best resources against them. When major capital investments are required, resource allocation decisions must be made well in advance of market or customer data. This is particularly true when a company's strategy relies on a few, long lifecycle products. Product introductions must also be timed appropriately to meet rapidly changing market needs, particularly when product introduction windows are narrow.

For a semiconductor manufacturer, for example, significant upfront capital and technology investments and long lead-time forecasting compound the challenges of placing the right bets at the outset of product development. By contrast, a handset manufacturer may be most concerned with ensuring that the product launch for the next generation handset coincides with the narrow product introduction window offered by the market.

### Integrating the Extended Enterprise

As contract design and manufacturing increase, it is imperative to limit costs and delays incurred to ensure maximum efficiency across your extended supply chain. High tech companies must limit re-work caused by inconsistent bills of material (BOMs) or frequent engineering change orders (ECOs), and they must be able to react quickly to changes in demand forecasts.

### **Meeting Customer Needs**

As market and customer demands shift, high tech companies must be nimble enough to detect the change and alter their production processes to limit the amount of inventory incurred or to ensure sufficient supply to meet customer demand. With limited information and little understanding of the profitability implications of their decisions, companies must decide what customization to provide, when to retire products and when to continue service.

### **Lifecycle Management in High Tech**

Though technology companies face different challenges depending on the speed of innovation and the length of product lifecycles in their sectors, lifecycle management in high technology is essentially composed of two elements—initially, placing the right “bets” on new products, and then extracting maximum value from products throughout their lifetimes.

An effective lifecycle management application should be flexible enough to adapt to the specific needs of sectors within the high tech space. Whether you are an OEM, a semiconductor/fab manufacturer or a designer of consumer electronics, you should have available the information you need to innovate profitably by improving business decision making and extracting more value from your product and service portfolios.

## **The Value of a Lifecycle Management Application**

### **Place the Right Bets & Manage Your Portfolio for Maximum Value**

Key to “placing the right bets” is your ability to discern what customers want—and what they will pay for. By reaching across all functions and systems within your company, lifecycle management applications provide you with the information and the capability to test and compare the potential returns of your offerings in a consistent and standardized way, leading to quicker and better decision-making. Market data and customer service information can be leveraged in product design to ensure that customer needs are being addressed. You can actively manage your product portfolio to ensure a balanced mix of development stages, offering types and markets served. Various competitive and economic scenarios can quickly and easily be tested, enabling informed trade-offs in portfolio design.

### **Allocate Resources Effectively & Track Progress**

Sophisticated lifecycle management tools will allow you to evaluate hundreds of project opportunities quickly along a set of criteria that you determine, and optimize your investments based on project potential. You can monitor progress for all projects simultaneously across the extended enterprise and allocate your human capital according to priority and project needs. The application can help ensure that your top engineers are working on your highest return projects. It can inform intelligent decisions about when to terminate a project and highlight the implications of a delay or bottleneck in one project on dependent projects across the organization. Robust lifecycle management applications provide this enterprise-wide view of projects and portfolios, tailored to the role of the individual.

### **Provide the Customization Customers Truly Value**

As the market for your sector requires increasing customization, your ability to provide choice in a cost-effective manner will, in large part, determine your company’s success. With the capability to ascertain which product or service attributes can be provided profitably, you can offer these options to customers who then configure their “own” products and optimize your manufacturing processes to meet the new requirements.

### **Enable Quick Response Along the Value Chain**

Sophisticated collaboration capabilities allow you to coordinate the complex extended enterprise of suppliers, contract designers/manufacturers and distributors while providing state-of-the-art role-based security and viewing capabilities. For example, a design engineer can quickly access a catalog of re-usable parts and service information as his global team designs the next generation printer. He can share his prototype mock-up with the contract manufacturer in another country using a three-dimensional viewer, sharing only those parts of the design the contractor is bidding on, and determine which information the contractor will be able to download. Because it eliminates delays and errors and provides access to new information sources, this seamless collaboration across the extended enterprise can help to foster more profitable—and more frequent—innovation.

### **Reduce the Time & Cost of Getting to Market**

An effective lifecycle management application can radically simplify managing across an extended supply chain by creating a single bill of materials (BOM) for each product. With a single, integrated BOM, all functions can work from the same product definitions—thereby reducing errors, duplications and omissions and achieving significant cost savings. Any authorized changes to the BOM are instantly reflected to all relevant partners across the extended enterprise.

This improved coordination reduces rework and engineering change orders (ECOs), enabling you to reduce costs and to synchronize product development and manufacturing with narrow product launch windows. Since everyone in the organization relies on the same information for decision-making, transparency and accuracy of company and product data are improved. As market demand shifts, information from customer and market-facing functions can quickly be translated into manufacturing and procurement changes.

### **The Oracle Advantage**

In order to support effective lifecycle management, an application needs to have the end-to-end capabilities to help you make decisions at every stage of the lifecycle, from concept to retirement, and across the entire portfolio of offerings. Oracle's Product Lifecycle Management (PLM) offering provides this integrated, complete support for all sectors within high tech. You can be sure that you will have the information and analysis you need to place the right bets and maximize the value capture from your products and services.

With Oracle PLM, you can optimize your product and project portfolios, strategically allocate your resources and make smart decisions throughout the lifecycles of your products and services. You can also track projects closely across the enterprise, and get instant information about progress, costs incurred and potential bottlenecks. You can run various scenarios to determine how to allocate resources to your highest priority projects and understand the financial implications on the entire company.

Oracle's advanced analytics, collaboration tools and manufacturing modules work with industry-specific applications to enable you to collaborate across the extended enterprise, reduce costs throughout the value chain and increase your speed to market. These advanced collaboration capabilities are enhanced with Oracle's single, integrated bill of materials created for every product you offer and used across all functions—from design to engineering to manufacturing to marketing.

Oracle's PLM application also enables you to customize your products to meet customer needs—and to maximize profits while doing so. Costing analytics provide the information to make decisions about which product attributes you will offer, and the configuration application provides customers and designers with a “catalog” of feasible—and profitable—options.

### **Reduce Your IT Costs – The Architecture Advantage**

Oracle also provides superior integration capabilities, made possible by Oracle's ability to consolidate information from all your systems (Oracle and non-Oracle), providing a single definition of customers, suppliers, partners, products, services and employees. With this single source of information, your entire organization works from current, accurate data. Moreover, you can protect your intellectual property with role-based views—that is, you decide which employees and partners can access which information. Oracle's unique architecture lays the foundation for the most cost-effective and most secure application suite available in the market today.

### **Conclusion**

The pace of competition will only accelerate, and your success depends on identifying the right opportunities and capitalizing on them through superior execution. The Oracle Product Lifecycle Management suite is tailored to help you develop and commercialize successful high technology products to keep you ahead of your competitors. Please contact us to find out how Oracle Product Lifecycle Management can help you meet the profitable innovation challenge.

**Innovate to Compete. Innovate Profitably to Win.**

**To learn more about Oracle PLM, go to: [Oracle.com/start](http://Oracle.com/start), Key word: PLM  
Or please call Oracle Direct at: 1.800.633.0517**

**ORACLE®**

Oracle is the world's largest enterprise software company. For more information visit our Web site at [oracle.com](http://oracle.com). Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

Copyright © 2002, 2003 Oracle.  
All Rights Reserved.  
Published in the U.S.A.