



## HP Services and PRTM Jointly offering PACE®—Product Lifecycle Collaboration solutions

Fulfilling the promise of collaborative product development and  
lifecycle management across the extended enterprise





"PLM [Product Lifecycle Management] applications hold the promise of seamlessly flowing all of the information produced throughout all phases of a product's lifecycle to everyone in an organization, along with key suppliers and customers. An automotive company or aerospace manufacturer, for example, can shrink the time it takes to introduce new models in a number of ways. Product engineers can dramatically shorten the cycle of implementing and approving engineering changes across an extended design chain. Purchasing agents can work more effectively with suppliers to reuse parts. And executives can take a high-level view of all important product information, from details of the manufacturing line to parts failure rates culled from warranty data and information collected in the field."

*CIO Magazine*, May 15, 2003

## The challenge of continuous innovation

If your company depends on new products to fuel growth, you know how hard it is to continually create better products, faster. It is also a challenge to manage products throughout their lifecycles to boost productivity, cut costs, and maximize revenues.

As product development evolves into a process that engages a network of business partners with different core competencies, one thing is increasingly clear: Standardized data, advanced practices, integrated systems, and the ability to manage relationships are critical to success.

Clearly, in this environment, effective collaboration is the key to rapid product innovation and release. Companies must work closely with customers, suppliers, and other partners—often across a global supply or design chain—to stay one step ahead of the competition. They must interact across functions and company boundaries, tapping into ideas and knowledge within and beyond the enterprise.

However, managing collaborative relationships, integrating processes and systems, and arranging for all participants to work with the same product and project data adds layers of complexity to product development and lifecycle management. Common problems such as bad product data, poor parts management, and inconsistent change guidelines are "leaks" that hinder productivity. Add to this the pressures of maintaining or increasing the number of product releases in the face of shrinking budgets. Taken separately, any one of these challenges is daunting. Together, they may seem insurmountable.



# The ability to deliver the right product at the right time



## Collaboration and the Adaptive Enterprise

Agility is the new business imperative, addressing an enterprise's ability to meet critical objectives such as cost cutting while creating solutions that drive success. Agility is measured by the speed, ease, and range with which an enterprise can implement change. In a company that develops or manufactures products, it can mean faster time to market and improved profitability.

Agile enterprises are adaptive—no mean feat in today's business climate. HP's vision of the Adaptive Enterprise is an enterprise that can quickly implement new business models—such as product lifecycle collaboration—and deliver measurable improvements in business agility without disrupting IT operations or business processes.

Agility and effective collaboration, both internally among multiple departments and externally among strategic business partners, are important aspects of a product lifecycle solution. However, dynamic, real-time collaboration cannot be enabled by proprietary, stagnant IT environments. Effective collaboration flourishes where the underlying business architecture is built on a flexible, industry-standards-based infrastructure.

The ability to deliver the right product at the right time is one of the hallmarks of an adaptive enterprise.

A flexible, standards-based IT infrastructure provides both the backbone to support reliable collaboration and the agility to respond quickly to changes in your business environment. With the right partners and the right collaborative solution, your IT operations can become a key differentiator in your enterprise's go-to-market strategy.

HP and PRTM are those partners, and Product And Cycle-time Excellence®—Product Lifecycle Collaboration (PACE®—PLC) is the solution.



## Setting the pace

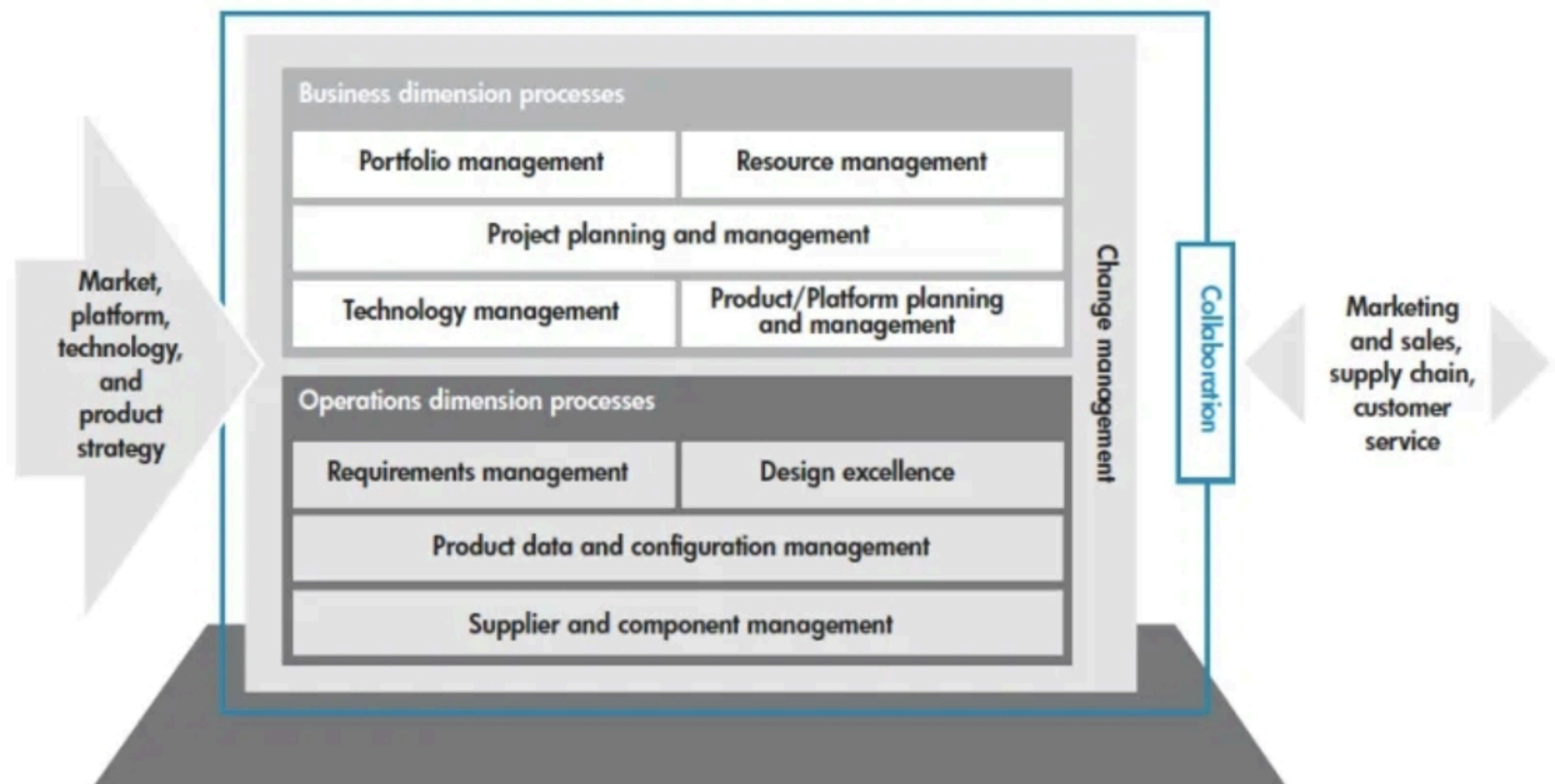
PACE—PLC is an advanced end-to-end product development and lifecycle management solution that is jointly delivered by HP Services and PRTM.

This advanced collaborative approach addresses key challenges of next-generation product development and lifecycle management:

- How to speed time to market and gain competitive advantage
- How to develop and deliver innovative solutions to high-value customer problems
- How to enhance revenues and profits at each phase of the product lifecycle
- How to increase R&D innovation with the same level of investment
- How to work more effectively with partners up and down the supply chain
- How to reliably support and manage a secure, collaborative infrastructure

With a joint HP and PRTM implementation of PACE—PLC, you are more easily able to tap into the following five key sources of PLC leverage, each of which is critical to performance:

- **Information:** Is the product data you need readily available and accessible? How much time does your staff spend searching for information needed to make decisions?
- **Assets:** How hard are your technology assets working for you? Are you getting the most from your underlying products and platforms?
- **Resources:** How well are you able to allocate, track, and manage project resources? Are available resources assigned to the highest-priority projects?
- **Knowledge:** Are you able to capture or reuse process knowledge and other intellectual capital or apply it in new ways?
- **Partnerships:** How well does your collaborative network enable your ability to compete?





## Benefits at a glance

An HP and PRTM implementation of PACE—PLC streamlines all aspects of the product lifecycle, delivering solid business benefits.

<b>Platform leverage</b>	PACE—PLC processes and design techniques help build robust platforms that facilitate a high level of design reuse. HP and PRTM consultants work with you to create an IT infrastructure that makes platform information available across the extended enterprise—resulting in better asset utilization, better return on development resources, and faster time to market.
<b>Easier, more effective management</b>	PACE—PLC enables you to manage the processes and information that influence every product decision—from initial concept through launch, growth, and eventual retirement and recycling. HP and PRTM consultants work with you to drive the improvements in change management, sourcing, and component management that reduce costs and stop “profit leaks.”
<b>Improved communication</b>	By forging strong links between participants and seamless feedback loops throughout the collaborative process, PACE—PLC provides the right information to the right people at the right time. When collaborators are working with the same information, the likelihood of creating a superior product at a reduced cost increases significantly.
<b>Increased visibility</b>	PACE—PLC integrates visibility into the supply chain with project planning capability, allowing you to eliminate unnecessary activities and increase productivity. In addition, you will have a better idea of where you need to collaborate in order to compete more effectively.
<b>Enhanced customer service and interaction</b>	PACE—PLC can assist you in Internet-enabling product ordering, configuration, and support to provide faster, better response to your customers. In addition, PACE—PLC facilitates the process of capturing valuable customer input for use during the product development process.





PACE—PLC essentially attacks the problems of product development and lifecycle management in a collaborative environment by combining sophisticated information technology with advanced management processes along business and operations dimensions. The business dimension includes aligning project decisions with strategic portfolio priorities, managing project resources for improved utilization and throughput, and planning product platforms to enhance broad reuse. The operations dimension includes requirements assurance throughout the lifecycle, applying Six Sigma concepts for design excellence, and reducing unnecessary product changes through streamlined product data and configuration management.

When you implement PACE—PLC, you are leveraging the experience and best practices of two market leaders. As a world-leading global technology company, HP combines unmatched breadth of understanding of IT infrastructure with the ability to continuously reinvent itself as a manufacturer—and to share that knowledge with you. PRTM, the developer of PACE—PLC, is a leading technology management innovator whose methodology has enabled more than 600 companies around the globe to increase R&D productivity and decrease time to market.

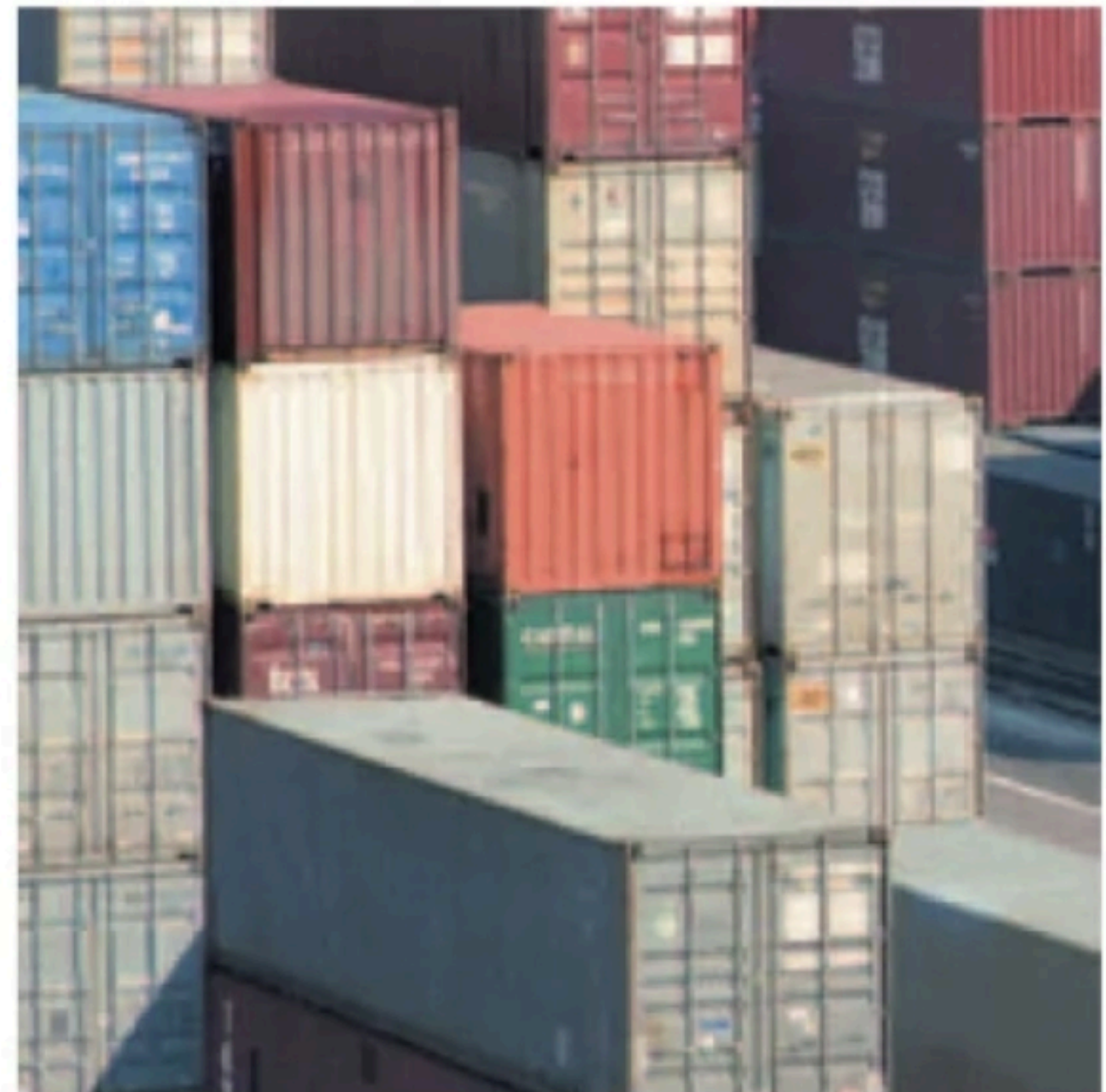
## Assessing your PACE—PLC readiness

Product lifecycle collaboration is a high-order business discipline that touches most aspects of the enterprise: R&D, engineering, manufacturing, purchasing, sales, order fulfillment, and customer service. Aligning your IT investments with key business processes and your overall enterprise strategy is critical to your success. Without planning to direct your investments in infrastructure and solutions, you may be creating an expensive legacy system without commensurate return on investment. This thinking underlies HP's vision for the Adaptive Enterprise—and it guides our assessment of where you are in the development of your lifecycle collaboration architecture and roadmap.

The PACE—PLC Readiness Assessment is designed to determine where your company stands in its ability to adopt the management practices, processes, and systems it needs for advanced product development and lifecycle collaboration as an adaptive enterprise. Our first step is to help you evaluate your business and operational effectiveness. We will examine how well you manage your portfolio and determine whether you're focusing on the right products, collaborating with the right companies, and making the best use of your resources and assets. Operationally, we will analyze how well you are managing your product data, whether there are consistent, up-to-date product definitions across the supply chain, if your return on IT investment (RoIT) is what it should be, how quickly you can make necessary changes, and what the cost of poor quality is.

Most organizations already have many elements of a PLC solution in place. The HP Services and PRTM team will analyze your existing enterprise framework, including its processes, business rules, IT infrastructure, software applications, and organizational roles. We'll compare you to industry peers—with an eye to how critical PLC is as a competitive differentiator. The readiness assessment typically discusses the following:

- Strengthening your product portfolio
- Making your development processes more productive
- Improving resource management
- Improving your collaborative network
- Managing suppliers and components more effectively
- Streamlining and automating configuration and change management processes



- Capturing, managing, designing, and validating to customer requirements
- Increasing applications and systems support for product lifecycle management and collaboration
- Creating an IT infrastructure that supports an adaptive enterprise
- Determining change priorities
- Demonstrating the business case for making these improvements

At the conclusion of the assessment, you will have a time-phased roadmap for improving your product lifecycle management capability that is clearly linked to anticipated business benefits.



Improvements of 10% to 50% have been observed in cycle times, efficiency, productivity, development costs, and product quality.

### The next wave of product lifecycle management (PLM)

If you are like many companies, you have a profusion of technologies, systems, processes, and organizational structures designed to make product development and lifecycle collaboration more efficient and productive. In the last decade, major advances in management processes and technology have brought about significant improvements in time to market and R&D output.

The HP Services/PRTM team and PACE—PLC offer enterprises like yours a way to build on those advances by moving from a project focus to a broader product portfolio focus, leveraging advanced processes, technologies, and practices, as well as integrating portfolio planning and tightly managing product information and resources. The result? Far better resource utilization and productivity, along with faster time to market. Improvements of 10% to 50% have been observed in cycle times, efficiency, productivity, development costs, and product quality. In today's fiercely competitive markets, results like these can lead to a sustainable edge.

A PACE—PLC implementation brings together both HP's 30 years of experience in designing and deploying high-technology environments and our commitment to enabling the Adaptive Enterprise, and PRTM's expertise as a leading management consultant in product development and supply chain management. Together, HP Services and PRTM deliver a proven solution that combines strategy and process excellence with demonstrated superiority in technology and application implementation.

### For more information

For more information about how a joint HP Services and PRTM implementation of PACE—PLC can help your enterprise realize the benefits of collaborative product development and product lifecycle management, visit [www.hp.com/go/PACE](http://www.hp.com/go/PACE).





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