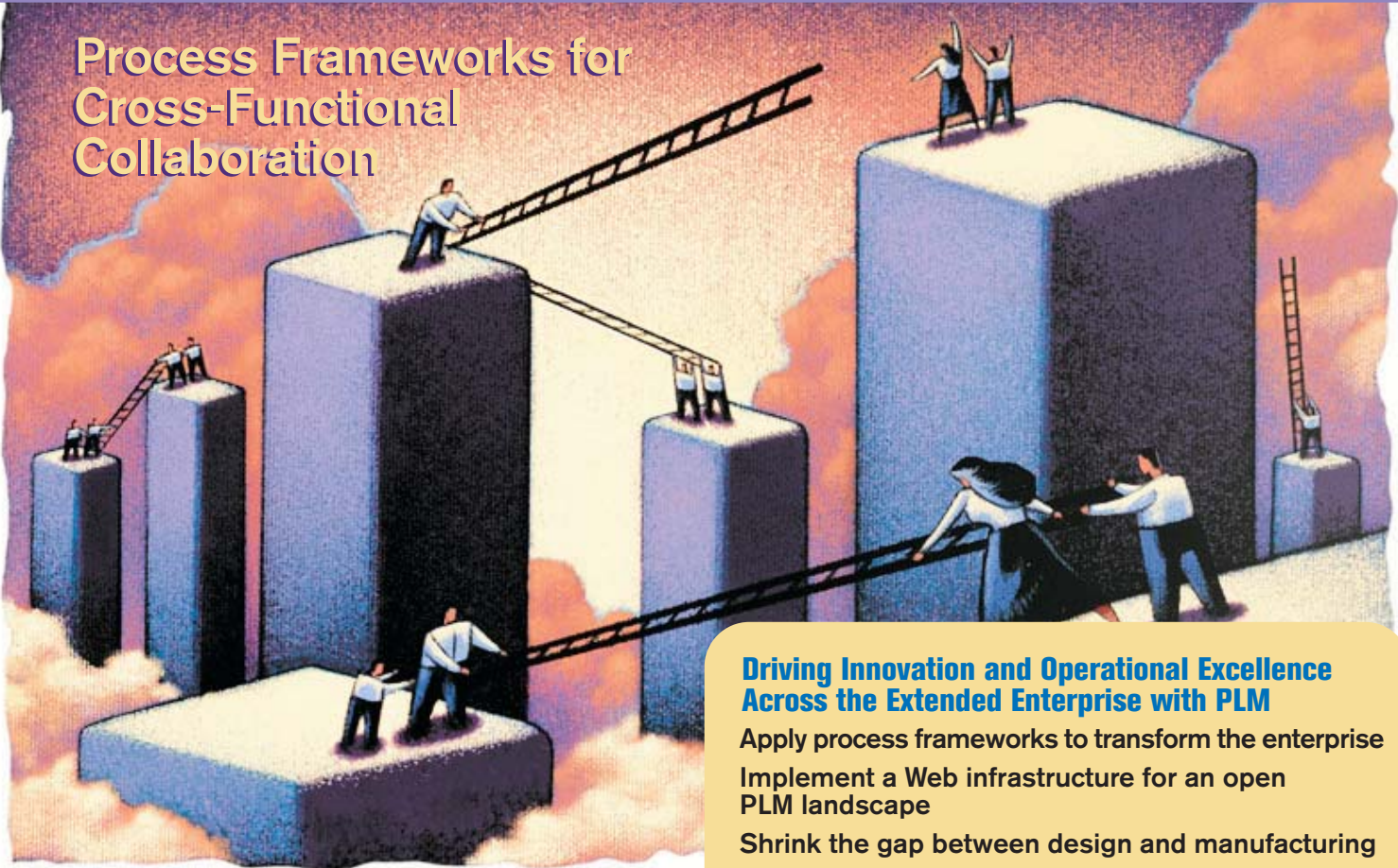


Product Lifecycle Management Road Map™ 2004

Process Frameworks for Cross-Functional Collaboration



September 22 & 23
Dearborn, Michigan

Driving Innovation and Operational Excellence Across the Extended Enterprise with PLM

Apply process frameworks to transform the enterprise

Implement a Web infrastructure for an open
PLM landscape

Shrink the gap between design and manufacturing

Consolidate PLM and ERP applications into a
collaborative enterprise architecture

Learn what works where, when, and why

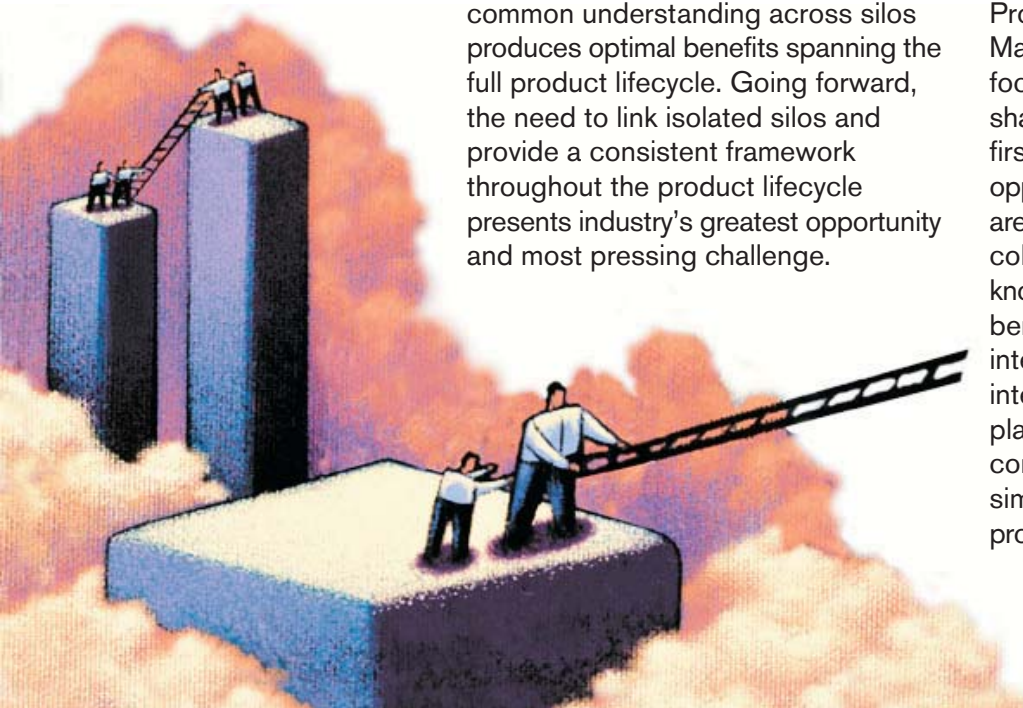
Identify and mitigate pain points and understand
the tradeoffs

Product Lifecycle Management Road Map™ 2004

The drive to share and reconcile multiple product views across the full enterprise not only shrinks design cycle times and product costs, but also bonds individual initiatives into a common process framework. Managing process flows and information dependencies to design and manufacture product establishes metrics that managers and operating personnel clearly understand. Achieving common understanding across silos produces optimal benefits spanning the full product lifecycle. Going forward, the need to link isolated silos and provide a consistent framework throughout the product lifecycle presents industry's greatest opportunity and most pressing challenge.

At Product Lifecycle Management Road Map™ 2004, find out how to reap the benefits of cross-functional collaboration. Join top analysts from Collaborative Product Development Associates (CPDA), along with key industry players as they share their experiences in linking technology across the full product lifecycle.

Product Lifecycle Management Road Map™ 2004 is a strategic conference focused on the critical tradeoffs that shape design and engineering. Find out firsthand about the progress, opportunities, and roadblocks end-users are confronting. Presentations will cover collaboration across the enterprise, knowledge capture and reuse, business benefits of PLM integration, PLM interoperability, open CAD and tight integration, product development platforms that meet the needs of commonality and variety, up-front simulation, up-front manufacturing process constraints, sourcing, and more.



Product Lifecycle Management Road Map™ 2004

Plenary Speakers: Wednesday, September 22, 2004 – 9:00 a.m. - 12 noon

PROCESS FRAMEWORKS FOR CROSS-FUNCTIONAL COLLABORATION

The drive to achieve a common understanding across functional silos produces benefits that span the full product lifecycle. The need to link these isolated silos and provide a consistent framework represents industry's greatest opportunity and its most pressing challenge. Find out what this means for you as our keynote speakers discuss these high-level challenges and themes.



The Toyota Way

DR. JEFFREY K. LIKER

Professor of Industrial and Operations Engineering, University of Michigan

Toyota's product process development system leads the auto industry and represents a benchmark for companies worldwide in driving down development cycle time. Toyota effectively integrates people, processes, and technology using principles firmly rooted in the "Toyota Way." These principles run deeper than any particular tool or technology and reach to a basic philosophy of how to develop people, solve problems, and learn as an organization. Jeff Liker will provide advice you can apply to your organization.

*William Rogers, Lockheed Martin Corporation
"We found our attendance at the PLM Road Map 2003
to be informative and valuable to our team."*



The Changing Face of Product Development in the Domestic Auto Industry

LAWRENCE J. ACHRAM

Vice President Virtual Engineering and Crossfire Product Development, DaimlerChrysler Corporation

The automobile industry has never been so competitive, with its rapidly increasing and complex requirements. Product "half-life" is decreasing, prices are deflating, and traditional business models are under pressure. Radical changes are required in product development processes for survival. These fundamental changes impact all of the traditional functional silos at the OEMs, both individually and collaboratively, and are likely to unravel many of the assumptions that form the basis of current PLM products. This presentation will highlight some of the challenges and issues for product development, and will suggest some of the vision and enablers needed to make the necessary adjustments.

Product Lifecycle Management Road Map™ 2004

Wednesday, September 22, 2004 – 1:30 - 5:30 p.m.

OPEN CAD AND COLLABORATION – PARTICIPATION IN A PLM FRAMEWORK

- Are you limited in your ability to manage product development processes?
- Are you forced to track multiple versions of product models in numerous formats?
- Which 3D collaboration technology works best across engineering and manufacturing processes?
- Are costly downstream interruptions in product development avoidable if appropriate experts are involved earlier in the cycle?

Changes driven by accelerated technology are forcing product developers to deploy corrective solutions across the full enterprise. Emphasis is on the dramatic opportunity presented and the crucial need satisfied when design engineering technology is harnessed to feed a consistent flow of information across the complete lifecycle. Explore these issues through presentations and roundtables with the end users who manage these concerns, and with the vendors who are committed to delivering appropriate pragmatic solutions.

Sandra Ashford, Ford Motor Company
“I found the PLM Road Map to be valuable and beneficial. I was particularly impressed with the GE presentation and my ability to network with them, as well as with your coverage of knowledge automation.”

Product Lifecycle Management Road Map™ 2004

Wednesday, September 22, 2004

1:30 - 3:30 p.m.

EXTENDING SYSTEMS ENGINEERING PRINCIPLES TO AN ENTERPRISE FRAMEWORK

- What are the requirements for successfully applying systems engineering to an enterprise framework?
- How does systems engineering extend to an enterprise-wide framework for PLM transformation that instantiates business process re-engineering?
- Can your firm utilize systems engineering standards like STEP AP233 and SysML?
- How can high-fidelity mapping of information dependencies help manage collaboration within and across enterprises?

Systems engineering presents a proven methodology within design and engineering to consolidate, trace, and communicate requirements for total product development. Such principles can be extended to provide a critical component for an enterprise PLM framework. Direct links must first be established with business process re-engineering to improve product development and to target operational needs. In this session practitioners will discuss the latest advances in applying systems engineering principles to process modeling and process management.

3:30 - 5:30 p.m.

PLM OPEN LANDSCAPE

- What is the value of XML for PLM integration in the enterprise?
- What does the recent progress with XML imply for your implementations?
- Web services, based on standard infrastructures such as J2EE and .NET, are moving to mainstream deployment outside engineering. Is this part of your vendor's portfolio integration strategy?
- How comprehensive are the APIs vendors provide?

The term "Open Systems" has gained little momentum in design and engineering. The absence of common definitions and the lack of a shared framework to assess priorities impedes integration and interoperability efforts. A rational framework for requirements allows users to present a consistent set of prioritized needs to facilitate their plans and motivate vendors. This session will introduce an open framework defined with the support of the major PLM suppliers and major end users.

Product Lifecycle Management Road Map™ 2004

Thursday, September 23, 2004 – 8:00 - 9:45 a.m.

INTEGRATION DOWNSTREAM

- Do multiple product configurations and frequent design changes cause your organization to struggle with delays in new product introductions?
- Are you faced with increased costs and delays because your engineering designs must be remodeled for production?
- Does manual manufacturing process planning cause costly and cumbersome storage requirements that hamper information sharing and reuse?
- Do you struggle to plan and manage mixed-model line balancing for “Just-in-Time” fabrication, based on customer orders rather than based on sales forecasts?

Increased product complexity compounded by the relentless drive to reduce cost and time-to-market forces product developers to improve processes and engineering methods for top-down product design with innovative approaches to transition designs into manufacturing. Explore top-down design and learn from leading-edge users how they are removing the walls between engineering and manufacturing. Learn how product launch times can be reduced by 25 to 50% through the availability of instant information.

DESIGN AND SIMULATION INFORMATION AND PROCESS FRAMEWORKS

- Can closing the gap between design and simulation accelerate product definition and validation?
- Can PLM's power be leveraged for multi-disciplinary analysis and optimization?
- What are the options for driving simulation into mainstream product design?
- What is the best way to manage simulation tools within a coherent environment?

Accelerated technological innovation transforms design, engineering, and manufacturing. Easy access with Web-based portals extends unlimited compute power to designers for early access to up-front design simulation. Potentially unlimited capacity at low cost supports complete product simulation and redefines roles of individual silos to accelerate decision making as a team. To take full advantage of intellectual asset simulation, it must be coordinated with mainstream design engineering activities. A framework for design and simulation addressing the full range of process and technical-integration issues is required. This session will present a framework and propose approaches for moving forward.

Product Lifecycle Management Road Map™ 2004

Thursday, September 23, 2004 – 10:45 a.m. - 12 noon

FEDERATED ENTERPRISE REFERENCE ARCHITECTURE (FERA)™: BUILDING A ROAD MAP FOR IMPLEMENTING LOOSELY COUPLED COLLABORATIVE MODELS

- When are loosely coupled or tightly coupled collaboration models preferable?
- What impact do the principles of FERA have on immediate implementation plans?
- How can collaboration processes be modeled using methods that build consensus and accelerate adoption?
- How can a cost-effective road map for enhanced collaboration be applied across the supply chain?

The Federated Enterprise Reference Architecture (FERA) presents a set of generic principles for information technology that maps a variety of collaborative processes built on common, reusable, open standards and relying on Web services. Loosely coupled collaboration provides the most flexible, optimal alternative to the complex supply chain interactions in design, manufacturing, and order fulfillment. Companies like Intel, Microsoft, and HP have been the frontrunners in applying principles of loosely coupled collaboration based on Web services. They will share the vision and implications of applying the principles of FERA to the next-generation PLM platforms.

*Thomas M.P. Catsburg, General Motors Corporation
“From presentations to hallway conversations, PLM Road Map was a chance to think about how to apply concepts and strategies that get drowned out in day-to-day business activities.”*

Product Lifecycle Management Road Map™ 2004

Plenary Speakers: Thursday, September 23, 2004 – 1:30 - 3:30 p.m.

PROCESS FRAMEWORKS FOR CROSS-FUNCTIONAL COLLABORATION – DELIVERING ON THE PROMISE

The promise of cross-functional collaboration is great, however, one of the biggest challenges to realizing that promise is the need to resolve the cultural and organizational barriers presented. Our closing keynote speakers will demonstrate how they moved beyond the simple one-stage linking of functional silos to an advanced stage of cross-functional collaboration based on integrated business processes operating at the intra- and inter-company levels. In this final session find out how these highly effective strategies can move you toward successfully driving innovation and operational excellence across the extended enterprise.



Product Design for Supply Chain: Case Study with HP

JOE FRANCIS

Senior Director of IT Business Process Modeling,
Hewlett-Packard

Learn about HP's experience in detecting PLM-related breakpoints, the discovery of true PLM process structures, and the path to higher team performance. This presentation highlights real-world experiences in applying integrated process and technology frameworks to business transformation, based on the large-scale process normalization effort after the HP and Compaq merger. In one example HP identified 85 improvement opportunities in product design and content management out of over 900 global processes within the program. Joe Francis will discuss his experience in dealing with the critical issues in successfully applying business process modeling.



Integration on the Horizon

MARIE WIECK

General Manager, Industry Solutions and
Business Integration, IBM Corporation

Manufacturers face a challenging and complex environment with an ever-increasing need for efficiency, speed, and the inclusion of new participants. This challenge crosses over departmental, company, and even national boundaries; not to mention silo'd applications, legacy systems, and a myriad of processes, systems, and information. Extraordinary value is seen when these components work together in a manufacturing eco-system integrated end-to-end. IBM calls this an "on-demand" enterprise built on the on-demand operating environment. Increases in efficiency, responsiveness, and adaptability can be realized through the horizontal integration of people, processes, and information. Marie Wieck will discuss the payoffs of horizontal integration to manufacturing and design.

Product Lifecycle Management Road Map™ 2004

CONFERENCE AT A GLANCE

WEDNESDAY a.m.	Plenary Session: Process Frameworks for Cross-Functional Collaboration	
WEDNESDAY p.m.	Open CAD and Collaboration – Participation in a PLM Framework	Extending Systems Engineering Principles to an Enterprise Framework
		PLM Open Landscape
WEDNESDAY EVENING	Eye on Technology Exhibition and Cocktail Reception	
THURSDAY a.m.	Integration Downstream	Design and Simulation Information and Process Frameworks
	Federated Enterprise Reference Architecture™: Building a Road Map for Implementing Loosely Coupled Collaborative Models	
THURSDAY p.m.	Plenary Session: Process Frameworks for Cross-Functional Collaboration – Delivering on the Promise	

ABOUT EYE ON TECHNOLOGY

Eye on Technology is a unique forum for conference attendees to learn about the latest products and services available. Product Lifecycle Management Road Map™ 2004 participants will have the opportunity to meet with a select group of vendors who will demonstrate the features and benefits of their most recent products. Attendees will leave Eye on Technology with a unique perspective on what is available in the marketplace and what will work best for their specific needs. Eye on Technology is a great opportunity for obtaining the most up-to-date information available, enabling attendees to return to the office armed with the knowledge needed to make informed purchasing decisions.

PARTIAL LIST OF PREVIOUS PARTICIPANTS:

3M Company	Cisco Systems, Inc.	GE Medical	MDS Sciox	Selectica, Inc.
Agile Software Corporation	CoMet Solutions, Inc.	GE Power Systems	Microsoft Corporation	Siemens AG
ALPS Automotive Corporation	CSC	General Dynamics	Moog, Inc.	Simulation Strategies, Inc.
Altair Engineering, Inc.	Configuration Solutions	General Motors Corporation	MSC Software Corporation	SmarTeam
Amcort PET Packaging	Cordis Corporation, Inc.	The Goodyear Tire & Rubber Co.	MSX International	Solidworks Corporation
ANSYS, Inc.	DaimlerChrysler Corporation	Gulfstream Aerospace	NCMS	Spatial Corporation
Arena Solutions	Dassault Systemes	Harley-Davidson	NetIdeas, Inc.	Sun Microsystems
Arvin Meritor	Deere & Company	Hayes-Lemmerz	Nike, Inc.	Swagelok
Autodesk	DELMIA Corporation	Hewlett-Packard	PSA Peugeot Citroen	Telelogic
BMW AG	Deloitte Consulting	Hitachi Ltd.	Pentair Enclosures	Toyota Motor Corporation
Bath Iron Works	Delphi Automotive Systems	i2 Technologies, Inc.	PlanetCAD Inc.	UGS
BearingPoint	E2open	IBM Corporation	PolyPlan Technology	U.S. Army
Bell Helicopter Textron, Inc.	Eaton Corporation	ImpactXoft	Pratt & Whitney	U.S. Navy
The Boeing Company	Engineous Software, Inc.	Intel Corporation	Proficiency	Visteon Corporation
Bombardier, Aerospace Group	ENOVIA Corporation	Lattice3D	PTC	Vought Aircraft
Bosch Braking Systems	Exostar, LLC	Lockheed Martin Corporation	Quantum Signal	Xerox
Build-to-Order	Federation	Lucent Technologies, Inc.	Raytheon Company	Yazaki North America
Caterpillar Inc.	Ford Motor Company	Mathsoft	Sandia National Laboratories	
Cimmetry Systems Inc.	GE Aircraft Engines	MatrixOne, Inc.	Seagate Technology Corporation	

Product Lifecycle Management Road Map™ 2004

Who Should Attend?

Engineering Executives
Engineering IT Executives
Supply Chain Management Executives
Product Management Executives
Product Platform Managers
CAD Strategy Executives
Outsourcing and Contract
Manufacturing Executives

Portfolio Managers

Procurement Managers

Engineering Process
Development Managers

Business Process
Management Executives

Process Designers

Chief Engineers

Systems Engineers

Planning Managers

Why Should I Attend?

There is no time to waste... Driven by the pressures of accelerated innovation and ever-intensifying global competition, the need for cross-enterprise collaboration supported by cross-functional process frameworks is vital for success. You have no time to waste; the decisions you make, and how you translate them into your competitive advantage, are crucial.

Take action now... Getting the right information at the right time is critical. Learn about what works and what does not from the industry's leading analysts, and from product companies that have already confronted and tackled tough PLM issues across the extended enterprise.

Frank Chen, General Motors Corporation
"PLM Road Map 2003 was my first opportunity to attend a conference focused on PLM. I found your coverage of PLM technology, and strategic issues relative to deployment, to be extremely valuable."

Product Lifecycle Management Road Map™ 2004

To Register for this Event

ONLINE: <http://www.cpd-associates.com/conf>

E-MAIL: events@cpd-associates.com

CALL: PLM Road Map™ Hotline
(800) 573-4756
(251) 433-7049 (outside USA)

FAX: Download Registration Form at:
<http://www.cpd-associates.com/pdfs/RegistrationForm2004.pdf>

REGISTRATION FEES

Choose any or all discounts

10% Early Registration – until August 31

10% Bring-a-Colleague Discount*

	Full Fare	One Discount (10%)	Two Discounts (20%)	Subscriber Rate
Conference Fee	\$1,295	\$1,165	\$1,035	N/A
CPDA Clients	\$995	\$895	\$795	FREE**

**Bring-a-Colleague Discount applies to both registrants.*

To be eligible, you must enroll at the same time.

***Call (800) 573-4756 to find out if you qualify for this subscriber benefit.*

Call (800) 573-4756 for group rates.

HOTEL AND VENUE INFORMATION

The Dearborn Inn – Dearborn, Michigan

(313) 271-2700

Group Rate: \$149

Reserve early – CPDA rate expires August 31

About Collaborative Product Development Associates

Collaborative Product Development Associates (CPDA), a leading research and consulting firm, is instrumental in providing organizations with the latest unbiased, in-depth information for assessing technology, business goals and objectives, and implementation road maps. Coordinated by a group of experienced analysts, its cohesive suite of collaborative research programs pools and leverages the efforts of top software designers and leading-edge users. CPDA's differentiation is its straightforward, impartial, and pragmatic approach to the market, and its hands-on understanding of the technology required to drive successful implementations.

For over a decade, CPDA and its predecessor, the PLM team of D.H. Brown Associates, have maintained the leading position in the industry using a disciplined, in-depth, collaborative approach to research, which continues evolving to meet the current needs of design, engineering, and manufacturing.

CPDA's methodology traces its origins to the early 1990s, when its programs on open systems and software were employed for UNIX, NT, and Linux evaluations by all major systems software vendors. CPDA's framework delves into specific requirements and business tradeoffs, while retaining the flexibility to meet the unique needs of individual organizations across broad sets of issues. The methodology has steadily expanded to address all phases of research required to assess implementation road maps of the critical factors that determine success.

CPDA's collaborative research programs include Product Definition, Product Value Management, Design Creation and Validation, and Product Lifecycle Management Infrastructure.

