

PLM Market Trends & Evolution

PDT Europe – 18 November 2009



PLM Market Trends & Evolution
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Agenda

- Motivations
- PLM's role
- Challenges



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Some Food for Thought

What makes you successful?

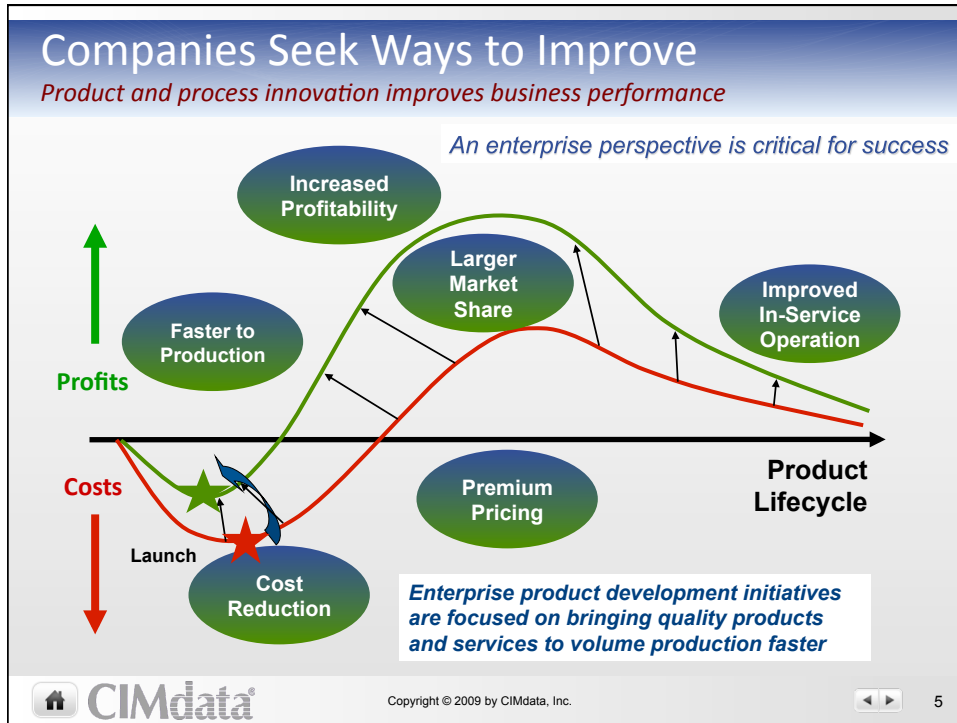
***Success is simply a matter of luck.
Ask any failure.***

Earl Wilson

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Industry Priority Shift

Short-term drivers are assuming a higher priority for business survival

- Current economic climate is stressing businesses everywhere
- Shift from top-line to bottom-line priorities
 - Operational efficiency
 - Cost reduction/control, efficiencies....
- Shift toward “quick to value,” “bite-sized” investments, ...
 - Immediate impact on performance
- Confusion of the term “innovation”
 - Product improvements and long-term positioning
 - Process improvement, gaining efficiency, cost reduction, improving quality

Globalization

Reduced Time

Product Complexity

INNOVATION

Lowered Costs

Improved Product Quality

Competition

Pricing Pressure

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Long-Term Strategy Can Not Be Ignored

Thinking strategically; there is no better time than now!

- Successful companies will be those that remember that the key to survival is often based on consistent preparation
 - What you have done during good times to be successful
 - How to prepare yourself during stressful times for the eventual recovery
- An economic downturn does not require cutting everything
 - But it does require being more strategic, ensuring that a company keeps **ONLY** those things that are helpful
- Effective investment decisions dictate long-term success
 - Investment in the right R&D activities will be rewarded
 - Are you actively practicing product portfolio management?
 - How are you managing the lifecycle of your products?



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Innovation Confusion

Innovation is not just about product innovation

- The term “innovation” is often misunderstood
- Innovation is ***not*** just about new product concepts
 - Innovation is applied to both product and process
 - Innovation can be applied to external processes that impact customers
 - e.g., Dell computer, iTunes
 - Innovation can be applied to internal processes that impact how companies plan, develop, manufacture, service, etc. the product/customer
 - e.g., Globalization becomes a “real” objective, not just “words”
- Recent public examples illustrate major investments
 - Harmonize global processes utilizing common architectures/technologies
 - e.g., EADS (PHENIX program), BMW single-MCAD platform, ...

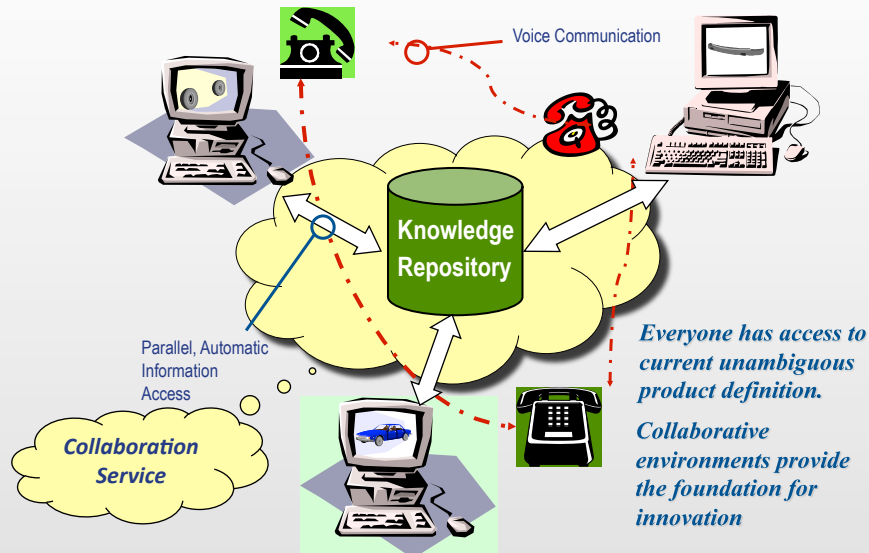


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PLM Environments Enable Innovation

Working with clear, concise, and valid information



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PLM – The Definition


PLM – integrating people, processes, business systems, and information

- Strategic business approach
 - NOT just technologies
 - Consistent set of business solutions
- Collaborative creation, use, management & dissemination
 - All product/plant definition information – the virtual product
 - MDA, AEC, EDA, CASE, analysis, documentation, ...
 - All virtual product processes
 - Processes that plan, design, produce, support, ...
- Supports the extended enterprise
- Spans full product/plant lifecycle, from concept to end of life



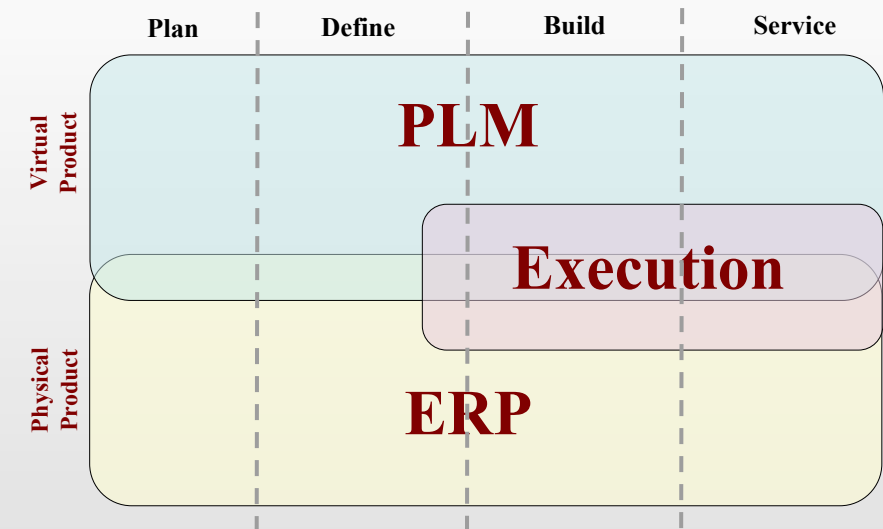
BUSINESS SOLUTIONS
APPLICATIONS
CORE FUNCTIONS
 Program Mgmt, Classification, Data Modeling, CAD, Product Structure, Workflow, Tools
FOUNDATION TECHNOLOGIES
 Analysis, Simulation, Security, Maintenance, Integration, Information, Communications & Collaboration, Visualization, E-IPD, Collaboration

Full Product Lifecycle


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PLM Footprint and Positioning

PLM footprint overlaps and integrates with other major enterprise initiatives



	Plan	Define	Build	Service
Virtual Product	PLM	PLM	PLM	
Physical Product		ERP	ERP	ERP
Execution			Execution	Execution

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PLM Solution Evolution

Enterprise focus and expanding footprint provide additional opportunities

- Market becomes increasingly complex with more potential overlaps/impact/conflict with existing/legacy initiatives
 - Alignment and positioning with other enterprise business initiatives is critical
 - Battlegrounds emerge – shop floor, sourcing, requirements, analytics, ...
- Coexistence with major IT initiatives is critical
 - Competing platforms
- Best-of-breed vs. platform debate
 - Landscape of competition is evolving
- Even with expanded footprint, core capabilities are still critical and a priority
 - But need more for less, performance is essential, more sophisticated, ...
 - Some are becoming commodities – non-commodity suppliers can leverage

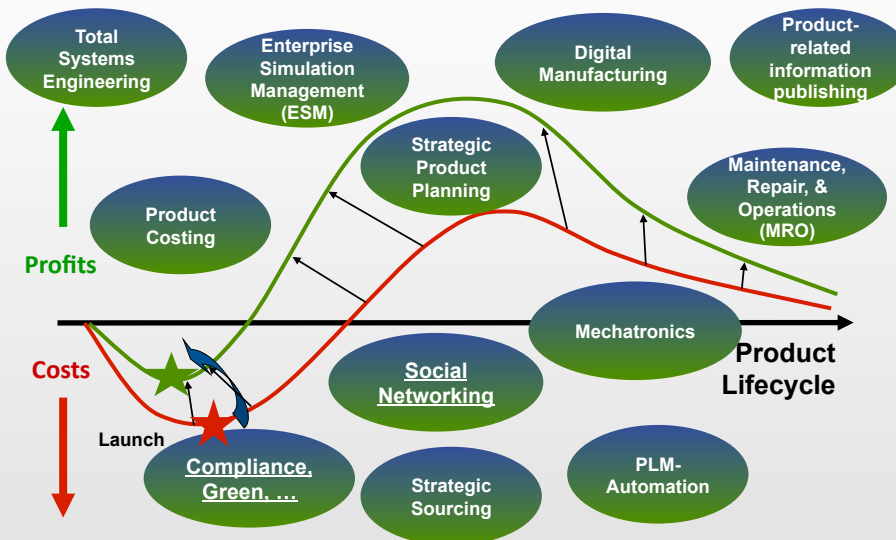


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PLM Footprint Expansion Leaders

Some key areas are driving the PLM footprint expansion



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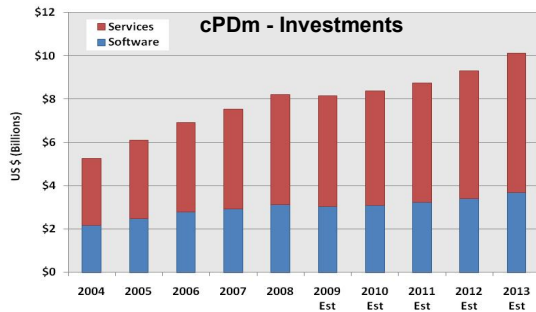
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PLM Significance Well Appreciated

PLM expansion and growth are stable

- PLM investments in 2008 were still strong: \$26.3B (+8.2%)
 - cPDM sector @ \$8.2B (+8.9%), services drove growth
 - Tools sector @ \$17.3B (+9%), specific sector growth
 - Digital Manufacturing sector @ \$0.5B (+9%), good growth
- We expect small decline in 2009 and modest growth in the rest of the forecast period
 - cPDM will have a 4.2% CAGR with a 0.7% decline in 2009
 - Tools growth 3.0% CAGR with a 2.9% decline in 2009
 - Digital Manufacturing 4.4% CAGR with a 2% decline in 2009



Software includes: one time payments (paid licenses) plus recurring fees – right to use, subscriptions, maintenance 2006 and earlier includes Digital Manufacturing



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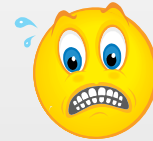
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PLM Maturity Drives Expansion

PLM is evolving rapidly – continuing to gain visibility and momentum

- Comprehensive enterprise solutions are increasing
 - PLM is one of the 2-4 strategic initiatives in many companies (PLM, ERP, ...)
 - A primary focus of a growing number of companies
 - Increasingly visible successes at companies of all sizes
 - Business transformation – process enablement is key
- Ongoing PLM footprint expansion causes stress
 - Industrial companies must develop strategies, plans, and implementation programs that span groups and commit investments
 - Comprehensive PLM solution suppliers must provide coherent solutions and enterprise-scalable architectures
 - Wide range of vision/implementation scale challenges supplier flexibility
 - Systems integrators must manage enterprise-wide implementation programs



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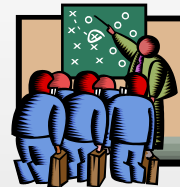


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Implementation Challenges

Implementing enterprise innovation-enabling environments is a challenge

- Broader-scope PLM implementations span multiple functional groups
 - Require organizational cultural change programs
 - Require more phased implementation programs
 - Enterprise program and project management are critical
- Effective services support is critical
 - Sources include software supplier, systems integrator, internal resources, etc.
 - Effective coordination between parties is both challenging and critical
 - Alignment of all parties with strategy and objectives is essential



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Enterprise PLM Challenges

"Selling" enterprise PLM inside your organization is a challenge

- Enterprise PLM requires committing to both an overall vision and packaged steps
 - Different messages to different roles/people
 - Commitment both up and down in organizations
 - Positioning PLM among enterprise investments
 - With broader suites, temptation is to want "everything," but initial implementations are typically much simpler
- Selling pressures continue to drive supplier behavior
 - Pricing disparities continue – discounting varies widely, with too many wide variations in initial price quotes
 - Industry knowledge and expertise are required from suppliers, but time commitments and resource constraints impact performance



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Summary

Innovation is a key to competitive success, in both short-term and long-term

- Innovation is a key competitive differentiator
 - Industry motivations demand innovative solutions
 - Basic objectives of industry have not changed much, but the environments are significantly different
- PLM is a major innovation enabler
 - Continues to attract more substantial investment and interest
 - Continued expansion of PLM vision & footprint adds complexity
- Current economic crisis is seriously impacting priorities
 - Shift from top-line to bottom-line priorities, but don't forget longer-term
- Enterprise implementation programs challenges both suppliers and customers



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