

How to Claim the Benefits of PLM
CIMdata PLM Education Webinar

PLM Leadership

How to Claim the Benefits of PLM
CIMdata PLM Leadership Webinar Series
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#cimdatawebinar

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About CIMdata...
Strategic consulting for competitive advantage in global markets

CIMdata is the leading independent global strategic management consulting and research authority focused exclusively on the PLM market.

We are dedicated to maximizing our clients' ability to design and deliver innovative products and services through the application of PLM.

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How to Claim the Benefits of PLM

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Presenters' Profile

Your presenters' professional background

- Jim McKinney, PLM Leadership Practice Manager
 - Nearly 30 years of experience in almost all areas of PLM
 - Has held positions in MCAD support, PDM implementations, product marketing, training, competitive intelligence, and consulting to companies large and small around the globe
 - Holds a B.S. in Design Engineering Technology from BYU



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Topics to Discuss

- PLM: A Strategic Business Imperative
- PLM In the 21st Century
- Defining PLM for Your Business
- Identifying and Selling the Value of PLM
- Fully Realizing the Value of PLM
- Concluding Remarks



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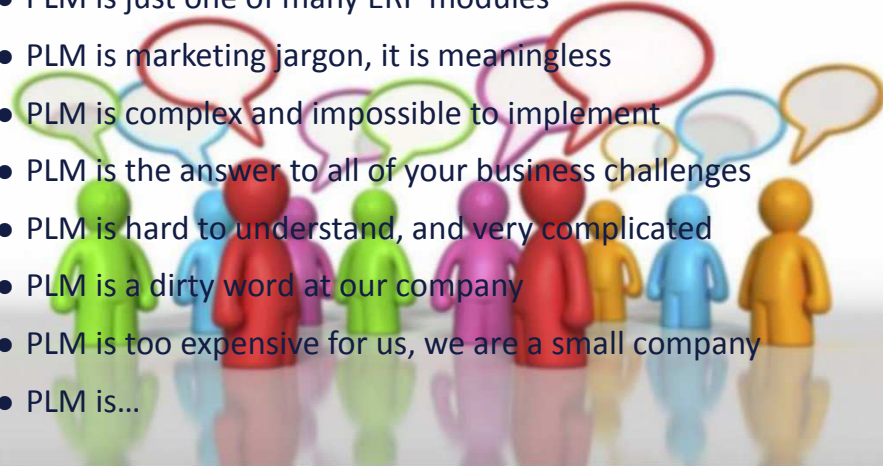
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What is PLM?

There are many definitions!

- PLM is exactly the same as PDM
- PLM is just one of many ERP modules
- PLM is marketing jargon, it is meaningless
- PLM is complex and impossible to implement
- PLM is the answer to all of your business challenges
- PLM is hard to understand, and very complicated
- PLM is a dirty word at our company
- PLM is too expensive for us, we are a small company
- PLM is...





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CIMdata's Definition of PLM...

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

- Strategic business approach
 - **NOT** just technologies
 - Consistent set of business solutions
- Collaborative creation, use, management & dissemination of product related *intellectual assets*
 - All product/plant definition information – the virtual product
 - MCAD, AEC, EDA, CASE, analysis, formulas, specifications, portfolio, docs, ...
 - All product/plant process definitions – the virtual processes
 - Processes that plan, design, produce, operate, support, decommission, recycle, ...
- Supports the extended enterprise
- Spans full product/plant lifecycle, from concept to end of life



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PLM Supports the Complete Lifecycle

...it is a business imperative, without it your company will not survive

Requirements Conceptual Design Product Engineering Manufacturing Engineering Simulation & Validation

Build and Produce Test & Quality Sales & Distribution In-service Operation Maintenance & Repair Disposal & Recycling

PLM Solutions—Information Management across Media, Process, Time, Geography, & Enterprise

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Information is the Core of Your Business

PLM ensures accurate and complete information to enable innovation

Traditionally, the knowledge of the organization is the sum of that which is held by its people

Collective ideas of the organization's employees

The organization's people, finances, and facilities

Intellectual Assets

Physical Assets

Deliverable Assets

Transformation ...

The organization's products and/or services

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PLM: A Strategic Business Imperative

Accuracy & completeness of an organization's information is critical

- The integrity of information and effectiveness of the organization are linked
 - Integrity = accuracy and completeness of the information you use to make decisions
 - Effectiveness = the ability to respond accurately and quickly

When does your product definition become complete and accurate?

Average Integrity Level (%)	Employee Effectiveness (%)
75	10
80	20
85	30
90	45
95	70
100	100

Adapted from ICM's CMII materials.

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PLM's Strategic Lifecycle Goals

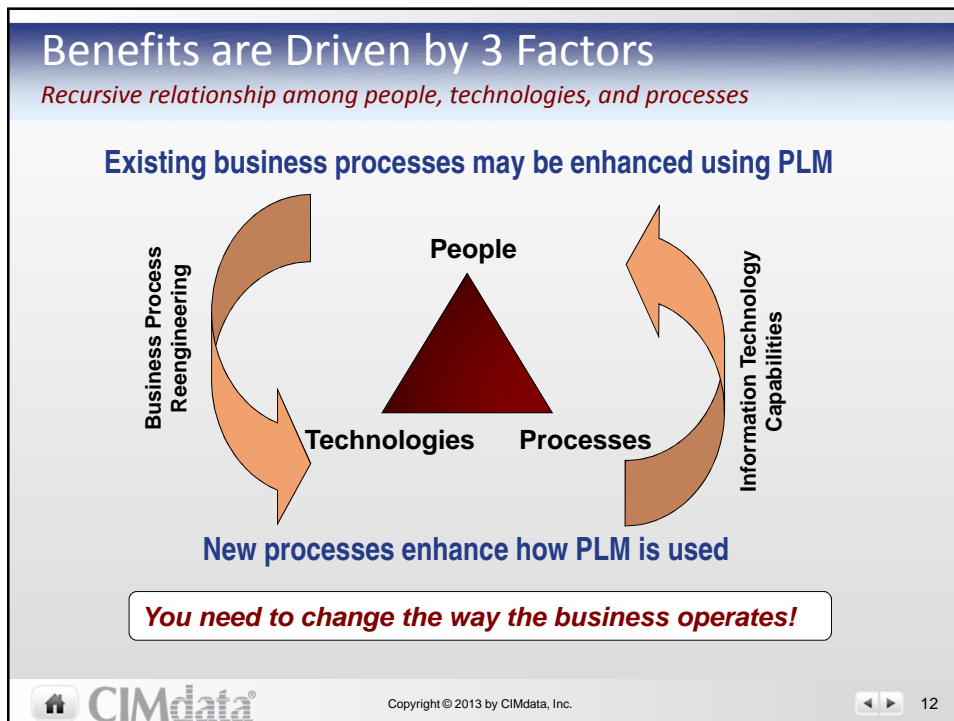
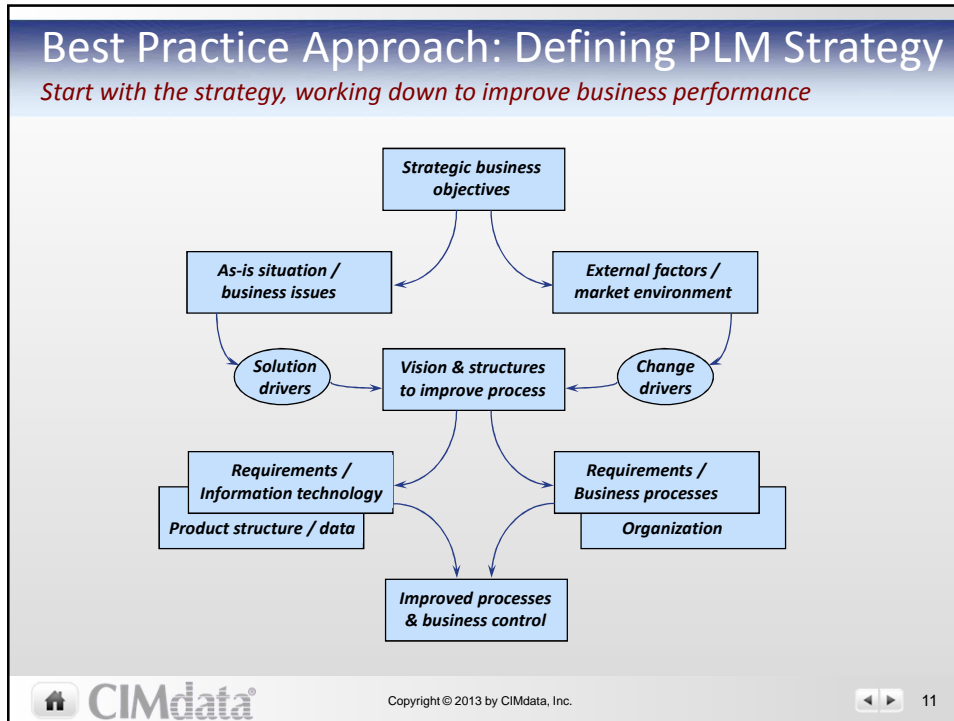
PLM supports product and process innovation—improving business performance

Managing your intellectual assets throughout the complete lifecycle is critical!

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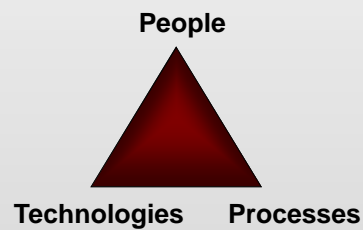
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3 Key Factors

People, technologies, and processes interrelate



- You cannot maximize benefits by improving one of these 3 in isolation
- Applying new technologies in out-of-date ways just allows you to create errors & take bad decisions more quickly
- People are adept at using tools incorrectly—they have to be trained in the tools & the processes



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Defining Benefits

Clarify the benefits of most interest to your organization

Direct Costs

Reduce labor costs



Time

Increase profit margins



Quality

Done right first time



Productivity

Re-use of information



Other Benefits

Cultural change



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Example Benefits

Example ranges of benefits based on actual experiences

- Time-to-manufacturing—10% to 50% reduction
- Engineering change process—10% to 70% reduction
- Design review process—50% to 80% reduction
- Increased productivity—10% to 20% increase
- Product development costs—25% to 40% reduction
- New part numbers—5% to 15% reduction
- Time to find information—75% to 90% reduction
- Design errors—10% to 25% reduction
- Time-to-design—15% to 70% reduction
- Travel cost for design—20% to 35% reduction

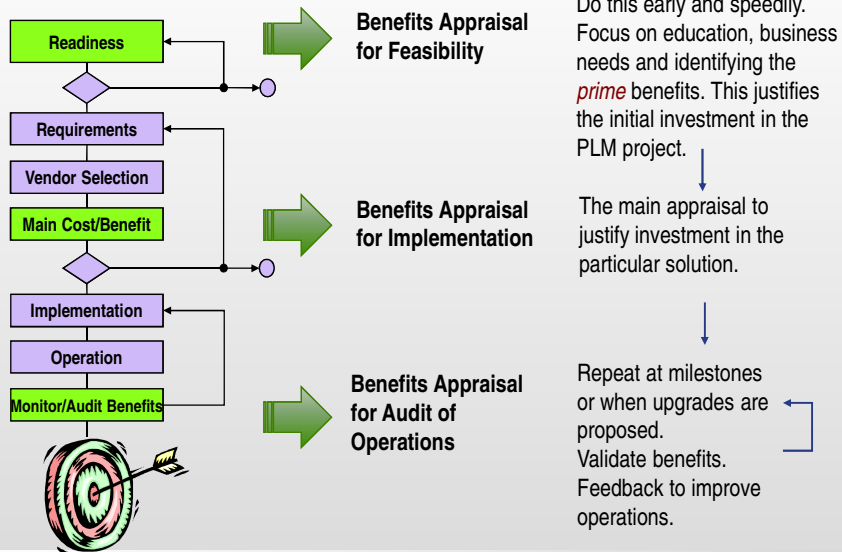


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The Overall Benefits Appraisal Process

Allow benefits to drive the implementation & increase return on investment (ROI)



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A Comprehensive Benefits Appraisal Tool

Proven repeatable methodology and supporting tools

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4 Sales & Service Benefits

5 Customer Response

No. of Responses to Customer Queries per Year: 200,000 No. / Year

Hours to Execute Each: 0.17 Hrs. Each

Hourly Rate of People: 60 \$ / Hr.

6 Bid Preparation

No. of Outbound Bids per Year: 0 No. / Year

Elapsed Days to Respond to Each: 0 Days

Hours to Prepare Each: 0 Hrs.

Hourly Rate of People: 0 \$ / Hr.

7 Service and Maintenance

Cost to Service Products: 0 \$ / Year

Warranty Costs: 50,000,000 \$ / Year

8 Quality Improvement

Rework Costs per Year: 0 \$ / Year

Value of Scrap per Year: 0 \$ / Year

Estimated PLM Savings Factors

High Estimate	Low Estimate	Company Estimate
65%	35%	20%
50%	10%	
10%	5%	
45%	5%	
55%	20%	
55%	20%	20%

Yearly Benefits

Before PLM	High PLM Benefit	Low PLM Benefit	Company PLM Benefit
\$ 2,000,000	\$ 1,300,000	\$ 700,000	\$ 400,000
No. 0	0	0	0
Days 0	0	0	0
\$ 0	0	0	0
\$ 0	0	0	0
\$ 50,000,000	\$ 27,500,000	\$ 10,000,000	\$ 10,000,000
\$ 6,632,038	\$ 6,637,232	\$ 663,204	\$ 1,989,611
\$ 18,216,703	\$ 1,821,676	\$ 910,838	\$ 910,838
Year \$ 36,258,909	12,274,042	13,300,450	
KS 36,259	12,274	13,300	

for Benefits from ROI_Calc tab

Discounted Cash Flow Example

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How to Fully Realize the Benefits of PLM

PLM is important for your business (1 of 2)

- Understanding the comprehensive nature of PLM is often the first step – this requires education
- PLM benefits are real, and they can be measured and tracked
- To be successful with PLM you must consider: people, processes, and technology at the same time
- Use a repeatable methodology to track PLM success
- PLM can have a huge impact on your business
- Once you are able to measure and track PLM benefits, you can use them to improve your business

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How to Fully Realize the Benefits of PLM

Keys to PLM successful implementations (2 of 2)



- Use a broad vision and approach
 - People want a business solution, not another system
- Educate senior management & initial team
- Support and do not undermine company culture
- Select a partner; someone who understands your business needs and has a proven solution and track record
- Scope should be well defined and understood
- Use pilot projects; the key to success
 - Pilots per discipline, or department are often possible

Success = vision + organization + process + vendor(s) + approach + environment

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CIMdata's Services...

Creating, disseminating, and applying our intellectual capital



- Research**
 - Market research & analysis
 - Technology research & analysis
 - Reports & publications
 - Market news
 - Member services...
- Education**
 - Executive seminars
 - PLM Certificate Programs
 - Technology seminars
 - Int'l conferences & workshops
 - Best practices training...
- Consulting**
 - Strategy & vision
 - Needs assessment
 - Solution evaluation
 - Best practices
 - Quality assurance
 - Program management
 - Market planning...

Delivering strategic advice and counsel through a comprehensive, integrated set of research, education, and consulting services

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CIMdata's PLM Transformation Services

Services for Industrial Organizations—improving your PLM-related processes

CIMdata's PLM consulting methodology—transforming your business for a competitive advantage!

A comprehensive set of services tailored to fit your specific needs...

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CIMdata's Industrial Clients...

A sampling of CIMdata's international industrial clients (1 of 2)

A&D	Auto	Fab & Assembly	High-Tech

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CIMdata's Industrial Clients...

A sampling of CIMdata's international industrial clients (2 of 2)

CPG/F&B/Process	Medical/Pharma	Emerging Ind.	Other

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Concluding Remarks

How to claim the benefits of PLM for your business

- PLM manages your intellectual assets (i.e., product related information)
- Your company's intellectual assets support product and process innovation
- The approach PLM strategy results in many benefits
- Benefits must be measured and leveraged
- These benefits can be realized across the enterprise
 - They must be identified, communicated, and managed
- CIMdata can help...

The quest for PLM never ends!

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Where to Start

The benefits of PLM education—getting educated!

- Prepare yourself to discuss PLM with your executives
- Increase your team's understanding of PLM
- Help your business adopt PLM best practices
- Learn how to measure the value of PLM
- Understand how PLM can transform your business
- Learn how to plan PLM implementations
- Become a PLM expert!



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CIMdata PLM Leadership

PLM Industry's most comprehensive non-biased education & training offering

This CIMdata offering is primarily comprised of a set of well defined, assessment-based PLM education and training certificate programs. These certificate programs are available to industrial companies who are considering and/or implementing PLM, and to PLM technology and service solution providers.

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PLM Certificate Program Outline

5-day, 9-session outline for PLM Leadership offering

- **Day 1:** Session 1: Introduction to PLM
- **Day 2:** Session 2: PLM Benefits & Potential Value
Session 3: PLM Strategy & Solution Definition
- **Day 3:** Session 4: PLM Solution Evaluation & Selection
Session 5: PLM Implementation, Monitoring & Continuous Improvement
- **Day 4:** Session 6: PLM Process Development & Testing
Session 7: Integrating PLM within the Enterprise
- **Day 5:** Session 8: Expanding PLM Across the Value Chain
Session 9: Configuration Management's Role in PLM



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What Others Are Saying

A sampling of feedback received from past certificate program participants

“A must attend program for anyone that is planning to participate in PLM selection or implementation activities at their organization.”

—Shinod Kumar, Edwards Lifesciences, USA

“CIMdata PLM Certificate Program has boosted exponentially my understanding of PLM and my confidence to evangelize it.”

—Rafael Navarro, Cranfield University, UK

“Wish I had this BEFORE we implemented our PLM. It will be good for continuous improvement.”

—Anonymous

“Hazy about PLM? Come to CIMdata and clarify.”

—Mrs. B. Uma Prasad, Bharat Heavy Electricals Ltd., India



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2014 PLM Certificate Class Schedule*

Join us, and get educated about PLM

- March 17 – 21 – San Jose, CA USA
- May 19 – 23 – Boston, MA USA
- October 20 – 24 – Amsterdam, The Netherlands
- December 1 – 5 – Ann Arbor, MI USA
- Custom & on-site programs by request

Special Discount: 15% off!
Sign up and pay by January 15th 2014



*Some dates may be subject to change



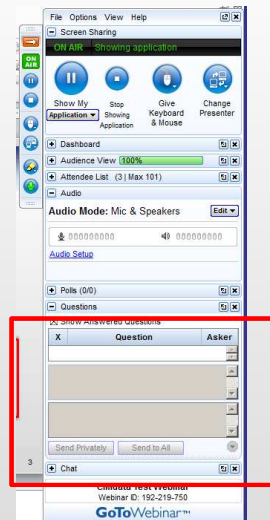
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Questions?

Please use the GoToMeeting chat panel

- We're hoping that the anonymity of the chat window might help participants ask more questions
- If you want to ask a question on the record, we'll certainly let everyone know you're asking
- The most important thing is interaction – let us hear from you on the call



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