

Driving a PLM Center of Excellence

CIMdata PLM Leadership Webinar

PLM Leadership

Driving a PLM Center of Excellence

CIMdata PLM Leadership Webinar Series

10 January 2019

#cimdatawebinar

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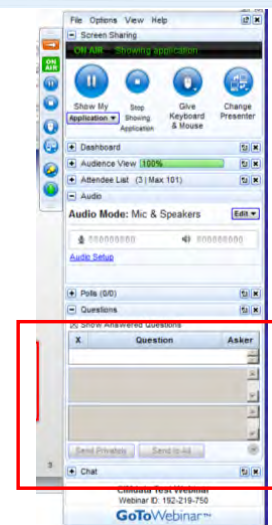
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- Please enter questions in the GoToWebinar Question panel
- We will answer as many questions as time allows...
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Presenter's Profile

Your presenter's professional background

- John MacKrell, Chairman
 - More than 40 years of experience in the application of computer-based solutions to engineering & manufacturing; has held senior positions in product management, marketing, research & development, and consulting with companies that produce PLM solutions & services
 - B.S. in Naval Architecture & graduate-level studies in computer science



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Our Mission...

Strategic management consulting for competitive advantage in global markets

CIMdata is the leading independent global strategic management consulting and research authority focused exclusively on PLM and the digital transformation it enables.

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

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Our Services...

Creating, disseminating, and applying our intellectual capital in support of your digital transformation



Research

- Market research & analysis
- Technology research & analysis
- Reports & publications across multiple domains
- Market news
- Member services...



Education

- PLM Certificate Programs
- Executive seminars
- Technology seminars
- Educational webinars
- 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

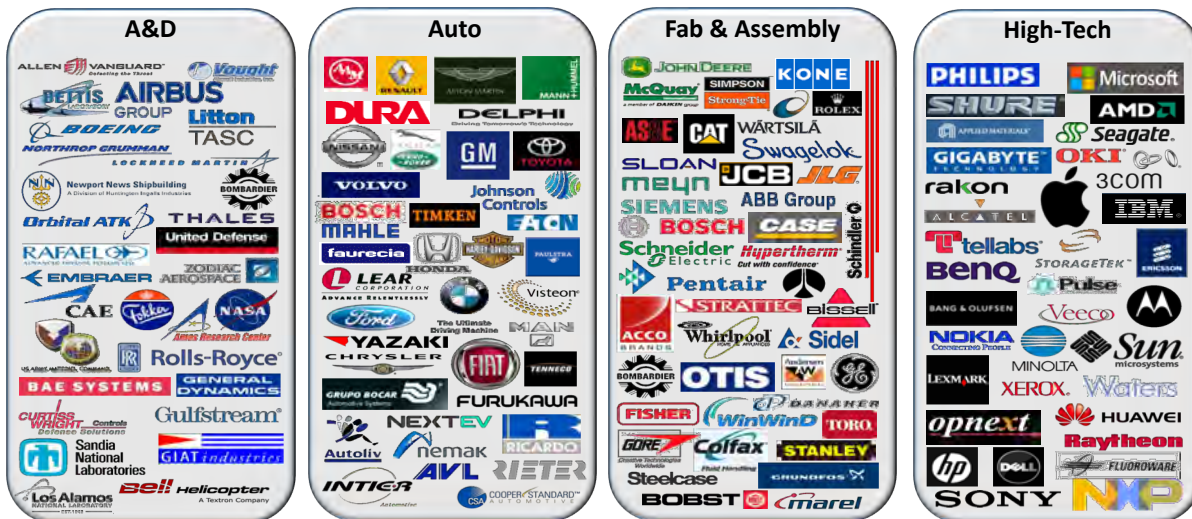
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Our PLM Transformation Clients...

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



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Our PLM Transformation Clients...

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



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PLM Center of Excellence (CoE) Topics

- Key takeaways
- Definitions
- Why is a PLM CoE Needed
- Standards
- Who Drives PLM CoEs
- Conclusions

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Key Takeaways

What we will try to convey today...

- Many companies implement their PLM environments and then forget that they are part of an ongoing, continuously evolving business-supporting strategy
- Best practices for running a beneficial PLM program that supports the business are not well understood
- Businesses tend to evolve over time, so PLM adoption is not a one-time event, companies will need to be very nimble and continue to expend resources to keep up with both business and PLM capability changes
- Too often, PLM users have no formal support structure

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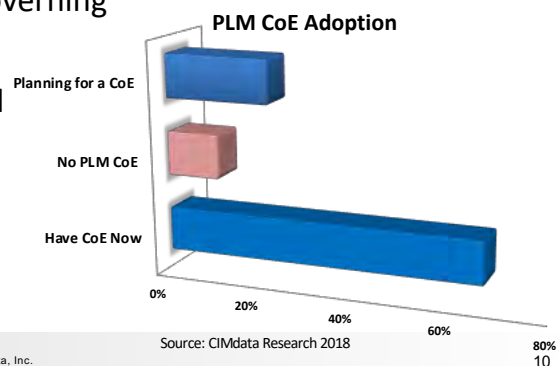
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Why a PLM CoE is Required

Supporting PLM's value to the enterprise

- Companies continue to strive for increased value of comprehensive PLM strategies
- To maximize value, they need to support and enable business across enterprises—not just in departments
 - Doing this invariably leads to problems governing increasingly complex PLM solution suites across more enterprise functions, stressing unstructured and unempowered support groups
- Provide structure and cross-functional coordination
- Control customization



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PLM CoE Defined

Provides consistent process & technology support across the business

- A PLM Center of Excellence is a *centralized, BUSINESS* organization
- Primary role is to support the business' use of PLM—technologies and processes—that enable organizations to support products throughout their life—from concept through manufacturing to in-service operations, and retirement
 - Technologies include product data management (PDM), mechanical CAD, electrical CAD, CAM & NC, CAE & S&A, requirements management, change tracking and approval processes, manufacturing planning, maintenance planning, issues management, data visualization, and many others
 - Business processes that need to be supported are product conception, product realization, validation, commissioning, support, evolution, etc.
- The CoE is responsible for all aspects of PLM (implementation, on-going operations, development, testing, data migration, training, etc.)



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PLM CoE's Role

- Direction & governance of the PLM strategy & how it is implemented in the business
- A business support function—not just an IT role
- Defines & directs business, technology & operational aspects including changes
- Includes PLM governance capabilities and a structure to facilitate it



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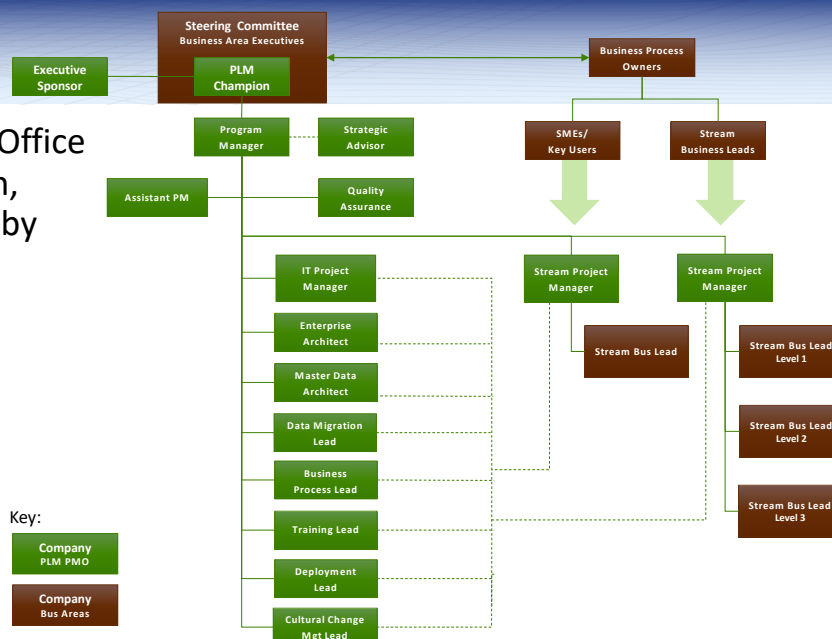
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CoE Structure

Business PMO supported by IT

- Project Management Office (PMO) leads definition, but always controlled by business needs
- Business defines—IT implements



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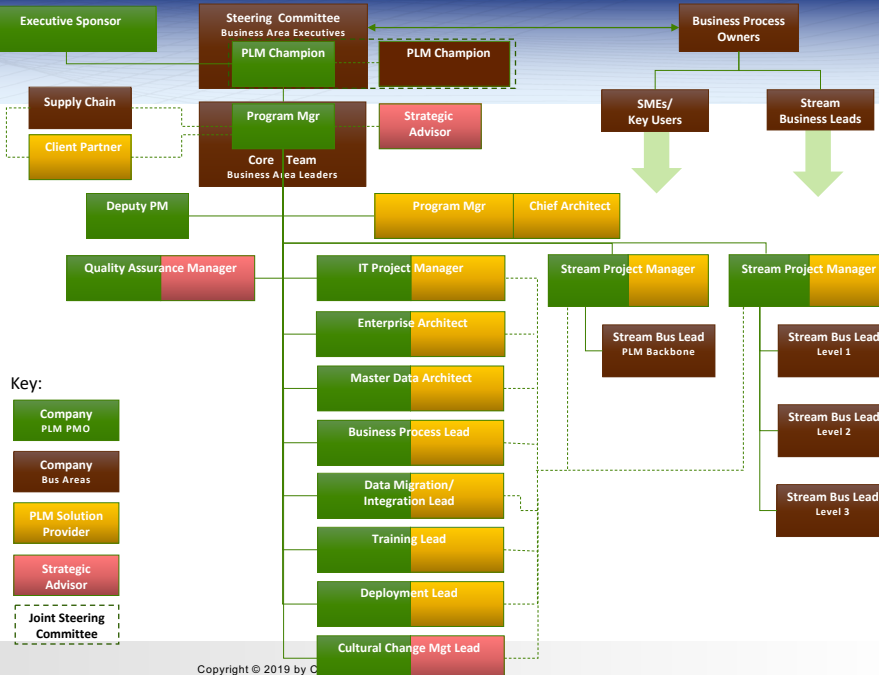
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CoE

Extended partnership

- Can have a parallel structure with solution providers & partners

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Steering Committee More than Change Control

Meeting the synergistic needs of business with PLM deliverable prioritization

- They are responsible for the overall strategy and high-level timing of the program
- They manage the priorities based upon the business needs, product development strategy and acquisition/decommission of the organization's products, joint ventures and plant operations
- They are the key access and communication point for all PLM activities
- The Board does not have to be big, but big enough to do the tasks needed
- They must have a reasonable level of PLM understanding

This team is responsible for the success of PLM!

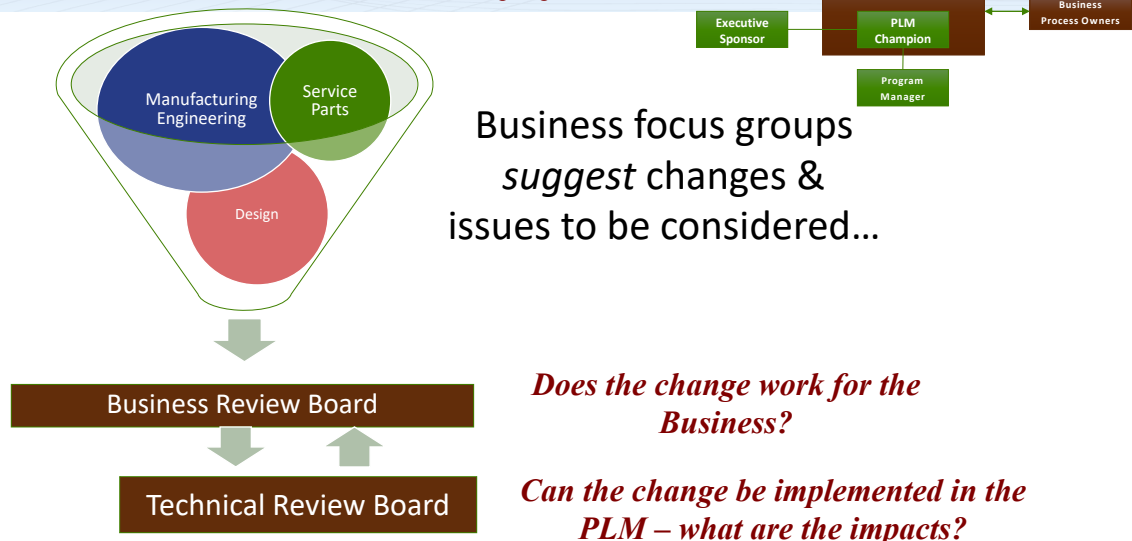
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Steering Committee Operates in a CoE

Business Review Board & Technical Review Board working together



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Who with What Responsibilities

Main roles & responsibilities of a PLM CoE

PLM Champion	Steering Committee	Program/Project Mgr.	Information Technology	Solution Provider	Business Units/Users
Chief Evangelist	Roadblock Remover	Budget Owner	Provider Management	Solution Configuration	Communications
Board Responsible	Review & Approve Vision	Project Metrics Owner	Software Build Cycle	Solution Specific Training	Requirements
Visionary	Strategy Review & Approval	Cultural Change Mgt. Facilitation	Unit, System, Regression Testing	Infrastructure Guidance	User Acceptance Testing
Budget Review	Budget Review & Approval	Project Plan & Status Reporting	Developer Training	Data Migration SMEs	End User Training
Resource Identification	Resource Allocation	Resource Management	Production Release Change Control	Process SMEs	Requirements Change Control
Roadblock Remover	Integration with other Initiatives	Scope Management	Data Migration Execution	Integration Support	Data Migration Planning & Cleansing

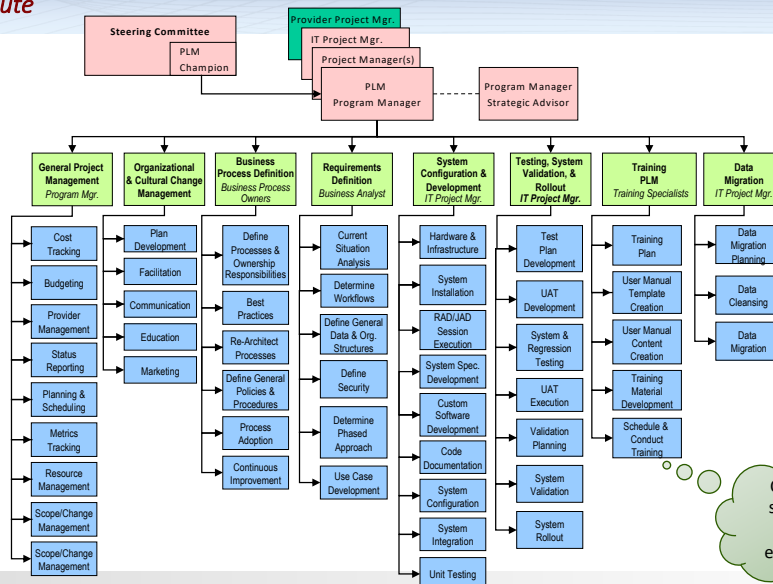
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CoE Work Breakdown Structure

Capabilities needed to execute



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Alternatives to a CoE

Shortcuts companies try to employ—none works as well (1 of 2)

- Decentralized, local, function-specific support
 - By business function or geography
 - Inconsistent funding
 - Levels of support vary
 - Some businesses achieve much better results than other's
 - Tend to over-customize to the business
 - Tend to over-customize to local customs (by geo)
 - By PLM capability
 - CAD (engineering) usually becomes the main supported area
 - Processes tend to evolve inconsistently
 - By types of user
 - Reduces cross-functional support for collaboration and innovation
 - Tend to over-customize to user's "wants"



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Alternatives to a CoE

Shortcuts companies try to employ—none works as well (2 of 2)

- Outsourced PLM support
 - Less control of a strategic business enabler
 - Different locations with much different levels of support
 - Service Level Agreement terms are critical
 - Does not imply that external resources should not provide any PLM support services
 - External resources are most often used to help with:
 - Data quality/migration
 - Help desk operations
 - Tool and application development



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PLM CoE Benefits

- Establishes PLM governance structure
- Consistent PLM support for the business
- Assures changes to PLM are formally considered by the business, avoiding scope creep
- Drives PLM based on business in coordination with IT
- Assure that PLM implementation aligns with business processes

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CoE and Service Level Agreements

Primary support of CoE for the business

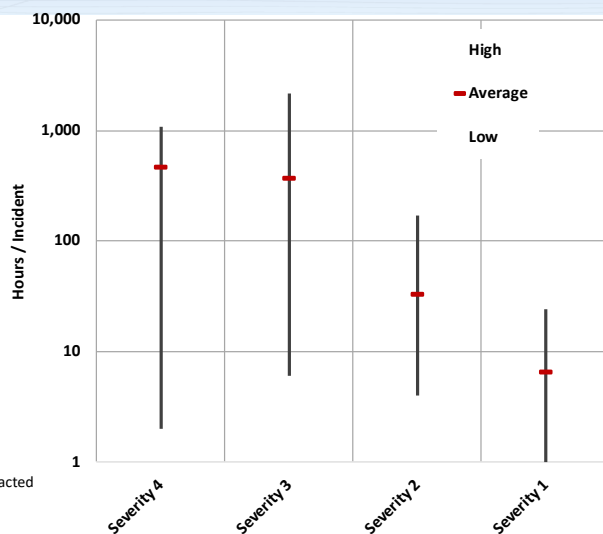
- Need a well-defined issue escalation process
- Resolve issues as rapidly as possible
- Assure the PLM supports the level of service required by the business

Severity 4 = minor impact, workaround available

Severity 3 = minor impact, workaround to be identified

Severity 2 = moderate work stoppage, entire functional area impacted

Severity 1 = major work stoppage, ALL users impacted



Source: CIMdata Research 2018

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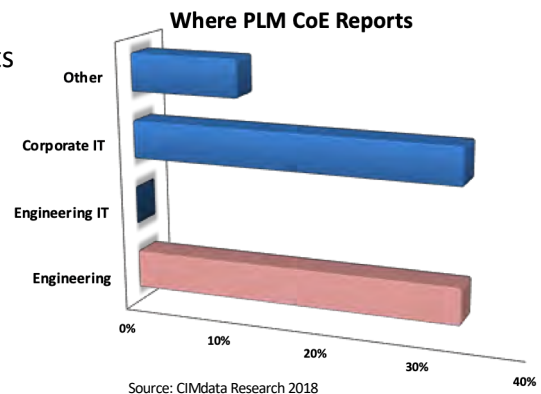
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PLM CoE Best Practices

Enhancing business benefits (1 of 3)

- Primary role of PLM CoE is to assure that business role in product lifecycle is supported
- PLM CoE should report to the business
 - As can be seen in the chart it too often reports to Corporate IT
- Business SMEs define PLM requirements & processes
- Business SMEs define UATs
- Business SMEs execute UATs



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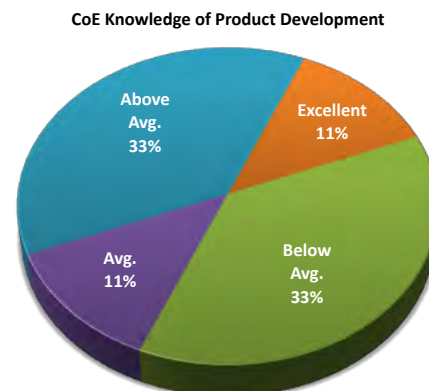
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PLM CoE Best Practices

Enhancing business benefits (1 of 3)

- CoE team needs to understand the product development process
 - Too often average or below average
- PLM CoE personnel should be trained on business work processes
- Educate & train on a regular schedule
- Rotate business users through PLM CoE
- Expert users become mentors



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PLM CoE Best Practices

Enhancing business benefits (3 of 3)

- Re-use the roadmap to guide each upgrade
- Establish governance structure for change
- Consistently use issues to improve system
- Monitor technological evolution to support improvements
- Use Agile development approach
- Consistently measure level of PLM adoption
- Clearly define a process to request PLM changes
- Use PLM to manage changes & issues
- Closed loop process for changes & issues
- Support located near users



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Concluding Remarks

Integration maximizes business value

- Implement PLM support for a continuously evolving business
- Use best practices to run a PLM program that supports the business—avoid treating PLM as just another tool or piece of technology
- Businesses evolve over time, so PLM adoption is not a one-time event—use PLM as a strategy that supports the business now & into the future
- Create a formal structure (a CoE) to support PLM as a strategic business initiative



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

CIMdata's certificate program is primarily comprised of a set of well defined, assessment-based PLM education and training classes.

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 outline for PLM Leadership offering—with assessments of learning for every session

- **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

Sample 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.”

—Mr. Shinod Kumar, Edwards Lifesciences, USA

“An excellent overview of all PLM and it's fit to companies. Good insights that can avoid many troubles in implementation.”

— Mr. Paulo C L Villaca, Embraer, Brazil

“I wish we had done this before we started our PLM effort...”

— Mr. Jeff Burk, Whirlpool, USA

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

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

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2018-2019 PLM Certificate Class Schedule*

Join us, and learn more about PLM

- December 3-7, 2018 – Santa Clara, CA USA *(completed)*
- January 14-18, 2019 – Ankara, TURKEY
- March 4-8, 2019 – Ann Arbor, MI USA
- June 17-21, 2019 – Amsterdam, The NETHERLANDS
- September 30 - October 4, 2019 – Boston, MA USA
- December 2-6, 2019 – Los Angeles, CA USA



*Custom & on-site
programs by request*



15% Discount for any scheduled class:
Sign up and pay by February 22, 2019

** Dates are subject to change*

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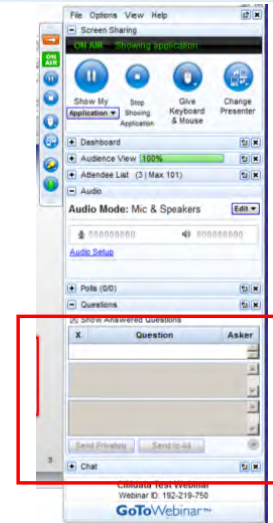
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