PDM/PLM BUYER'S GUIDE

PDM/ PLM BUYER'S GUIDE FOR COMPANIES SEEKING TO STREAMLINE ENGINEERING PROCESSES & MANAGEMENT

Contains information on Corporate Goals, Needs, Reasons and Check-list for Successful Implementation of a PDM/PLM Solution

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Collaboration, Information and Decision-making are corner-stones for any Manufacturing Industry to respond to challenges. Profitability is always under threat in a challenging situation. Decisions made by team based on input information, in a timely manner, help mitigate customer issues and meet aggressive schedules.

Role of PDM/ PLM in an Organization
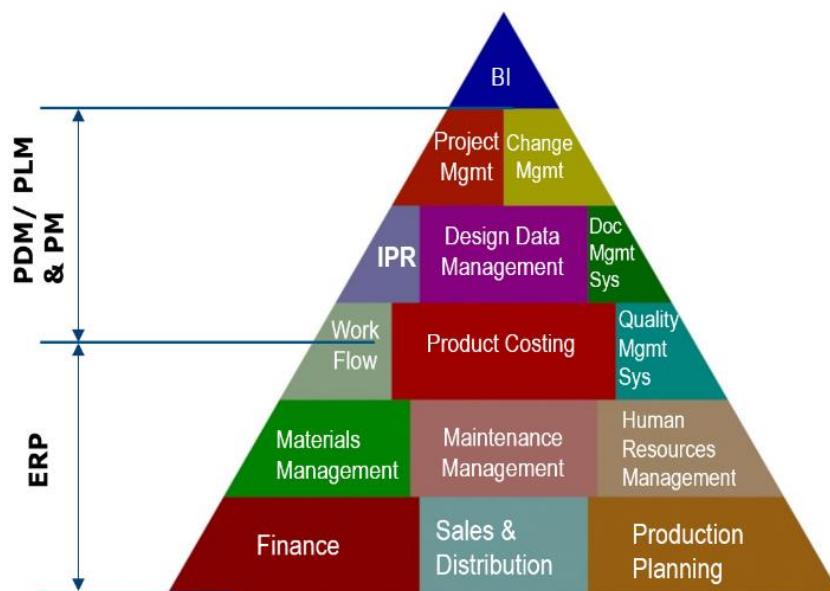
MEASURABLE METRICS

In order to assure profitability, every activity in an organization should be driven by THREE DRIVERS – Cost, Time & Quality. Continuous Process Improvement should be measured on these THREE DRIVERS. For this to happen, DATA needs to be there in re-usable form for interpretation and improvement.

Challenges Faced by Indian Industry

- Bringing Innovative Products to Market Faster

- Input Cost Pressure & Profitability Threats

- Quality Issues & Timely Resolution

- Product Reliability

REAL LIFE SITUATION

Every Quarter, Statutory Audit is undertaken in many companies, as a part of Compliance Verification and Remedial Measures. It is a known fact that Teams are mobilized to meet Audit 'Requirements.' This results in loss of productivity and missing of timelines on planned activity, with direct bearing on aforesaid Challenges. *Why should Teams spend unproductive hours creating/ updating records of activities if the same could have been done as a part of an automated process?* This activity is typically performed *post facto* as a part of fulfilment process and not necessarily compliance. In changing business dynamics, every day compliance is a necessity to meet stated Challenges.

Critical Priorities of Indian Industries

- Protection of Intellectual Property

- Creation & Management of Knowledge

- Automation of Workflow & Paperless Manufacturing

- Manage Customer Requirement

- Manage Product Documents

- Control Document Versions & Revisions

- Unification of Project Data
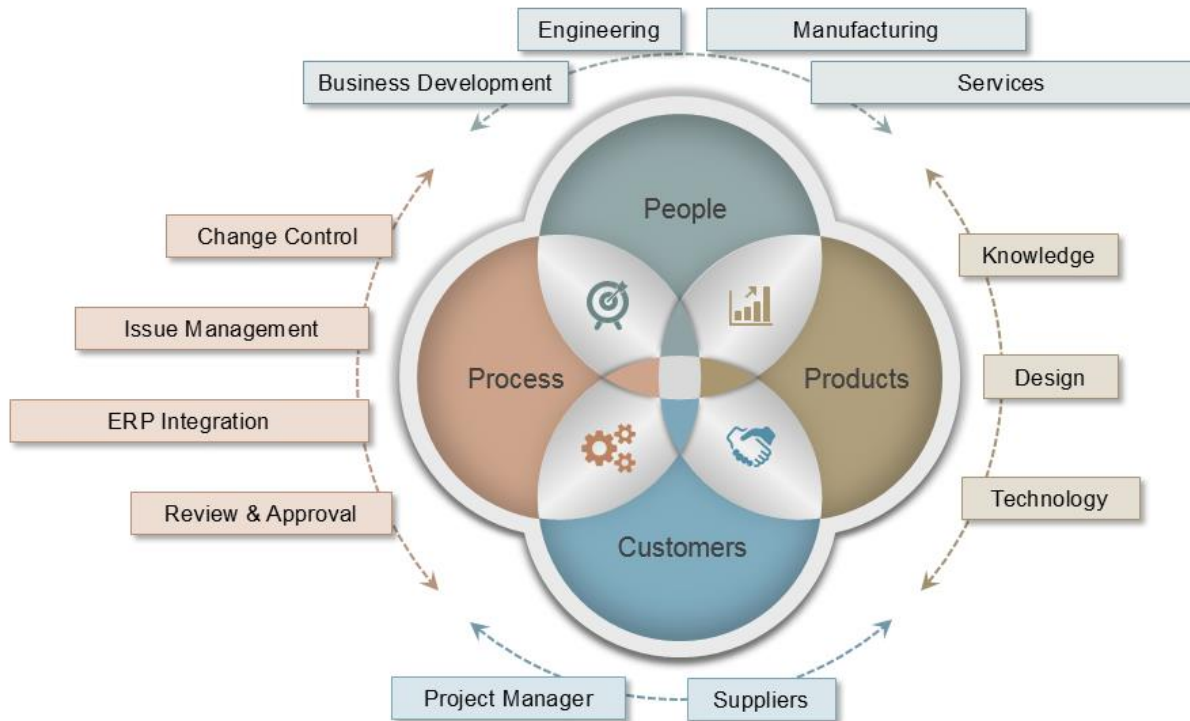
PDM/ PLM Requirements Checklist

Any successful deployment and usage of a PDM/PLM is dependent on four parameters, namely,

➢ Capability of the PDM/PLM Framework

➢ Implementation Vision & Roadmap

➢ Ease of Use, Adaptability & Adoptability

➢ Experience of the Implementation Partner

Numerous implementations have faced challenges on account of one or more of the above factors.

Following checklist, drawn out of experience, can help arrive at decision on choice of PDM/PLM and an Implementation Partner. Due diligence on this checklist, *a priori*, is bound to help achieve a pleasant and successful implementation experience.

S. No.	Functional Requirement	Required?
1	Data Security	
2	Workflow Automation	
3	Automatic Notification	
4	Engineering Change Management	
5	Document Revision/ Version Management	
6	Data Re-Use	
7	Project Management Integration	
8	Enquiry Management Integration	
9	Bill-of-Materials Management	
10	ERP/MRP Integration	
11	Statutory / Standards Compliance	
12	Rights Management	

Clear understanding of Current Status and Processes are essential before implementation is initiated.

Implementation partner needs to be engaged on the Requirements and detailed Scope Document preparation from the beginning since buy-in on the proposed system is vital for success.

PDM/ PLM Software Selection Criteria

In order to satisfy functional requirements of the organization, PDM/ PLM Software are deployed using

- ➢ Out-of-the-Box capabilities (standard functions)
- ➢ Configurable settings
- ➢ Customizable functions.

While Out-of-the-box capabilities and configurable settings are easier to deploy, customizable functions require sophisticated programming. This is done by accomplished Implementation partners with advanced skill sets in PDM/PLM programming experience. Necessarily, development of customizable functions take time and effort, not to mention the associated cost.

Typically, customizable functions are to be kept under 10% of total functions. This ensures faster Go-Live, less effort in upgrades, when new versions of PDM/PLM are released, and lower over-all cost of

ownership. This approach also reduces dependence on external consultants to maintain the PDM/PLM system once implementation is completed.

Checklist for PDM/ PLM Software Selection

S. No.	Functional Criteria	Priority (Critical/Essential/Desirable)
1	Ease of Use	
2	GUI Based Workflow Configurator	
3	GUI Based Rights Management Tool	
4	Configurable Integrated File Pre-Viewer	
5	API Functionality	
6	ERP Integrator / Connector	
7	2D / 3D CAD/ MS Office Tools Integration	
8	Project Management Tool Integrator	
9	GUI based Administration Panel	
10	Product Configuration Tool	
11	BOM Management Tool	
12	Batch Processing Tool for Automation of User functions	
13	GUI Based Rights Management	
14	Item Configuration Tool	
15	File Management Functions	
16	Template Driven Processes/ Documents	
17	Search (Keywords and Container based)	
18	Life Cycle Status Management	
19	File/ Item Data Card Editor	
20	File Type Configurator	
21	Documentation for Use & API	
22	Configurable User Interface	
23	Print Management Tool	
24	Audit Report Configuration Tool	
25	Rule Based Tool for Numbering Schema	
26	Data Back Up/ Replication Tool	
27	Multi-Site Configurator	
28	Integration with popular RDBMS	
29	Email Notification Management Tool	
30	3rd Party Viewer / Tool Integrator	
31	Data Migration Tool	
32	Scalability	

Prioritization of the functional criteria in terms of Criticality, Essentiality and Desirability depends on their impact on Cost, Time and Quality of Product / Processes. Detailed activity for each functionality needs to be documented by the Company and should form the basis of engagement with Implementation partners. This is a necessity to avoid prolonged delays during implementation phase.

Summary

PDM/ PLM Implementation and Successful usage depends on Four Key Parameters:

- ➢ Usability & Functionality

- ➢ Clear enumeration of Scope of Work with buy-in from experienced Implementation partner

- ➢ Shortest Learning Curve and Deployment

- ➢ Documentation of all activities including User Training Manual, Administrator Training Manual, Customization / Configuration and Minutes of Meeting

Successful implementations have always had the collaboration of IT and Engineering members working together as a critical task force team, with the willingness to change, in alignment with Management growth objectives.

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About EGS India:

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