The enterprise product lifecycle management (PLM) software market is entering its third decade of life. The vision of the leading PLM solution providers has evolved dramatically since the early 90s, while the capabilities of the software platforms have continued to expand and improve. The early sales pitches and solutions were almost entirely centered on engineering workgroups and document management. Over the last ten years, the PLM software industry has gone through a consolidation phase and has seen significant R&D investment in PLM platforms. Today, companies have the opportunity to take advantage of mature, integrated enterprise solutions with modern user interfaces. The value proposition is now truly cross-functional and PLM has emerged as a respected enterprise software domain that is a source of competitive advantage for companies that harness its power.

These platforms support the end-to-end innovation cycle from the definition of requirements through after-sales service and support. The systems facilitate industry best practice process optimization and workflow configurations that can be implemented “out of the box.” Solutions have also improved bottom to top with more seamless integration to heterogeneous CAD environments up through innovation portfolio management and performance analytics that connect the engineer’s desktop to the executive suite. In essence, we have gone from a stripped-down utilitarian commuter vehicle to a high-powered Italian sports car.

In addition to the core functionality of managing bills of material and engineering change, today’s PLM solutions are easier to use and have developing capabilities that enable innovation by addressing:

- **Requirements management** and traceability across hardware and software development
- New product development stage-gate process, program, resource and **portfolio management**
- Product and component **cost management**, often with supplier management functionality
- **Systems engineering** and the integration of mechanical, electrical and software development
- **Manufacturing process design** including simulation and validation linked to product engineering
- Connection with internal and external supply chain and **enterprise resource planning** systems
- **Social collaboration** and community tools for global information sharing and problem solving
- Comprehensive product **quality management** including CAPA (corrective and preventative actions) and statistical analysis tools
- Environmental and **regulatory compliance** based on product content and sources of supply
- Integration of product **packaging, labeling and artwork** with underlying product information
- Management of technical publications and information for **after-market service** functions
- Product and process **performance dashboards** and analysis tools for continuous improvement
In some cases, these new capabilities were built into the core Product Data Management (PDM) product and are available to existing customers with no additional licensing fees. However, all of this new functionality has made implementations more cross-functional, and therefore more complicated. This makes a comprehensive PLM strategy and plan for your enterprise more important than ever.

The Need to Evolve
At this point in the adoption cycle, almost every company we work with has some level of PLM capability in place. Most installations are successfully supporting the basic workday activities of engineering document management. This is analogous to driving that Italian sports car to the grocery store at the speed limit.

Many of these legacy implementations of PLM were sponsored in engineering and were either 1) narrowly scoped, not implemented fully, and marginally beneficial; or 2) were led by early adopters and were large-scale, expensive programs that required the development of custom applications. This often resulted in complex and costly solutions that today constrain innovation and development effectiveness.

Over time, businesses and needs have changed as well. Merger and acquisition activity and increased product-based competition have altered the landscape and raised the bar on innovation performance expectations.

Success in innovation and new product development requires collaboration with design and supply centers distributed around the globe, both inside and outside of the company. This has placed a whole new set of collaboration, control, access and security requirements on existing processes and PLM systems.

Regardless of your history or current situation, there are likely tremendous incremental business benefits to be gained from evolving your PLM platform, accelerating adoption of new PLM capabilities, and elevating it out of engineering. In many instances, the difficult work of getting the platform installed has already been done. Returns on investment from upgrade and expansion are much greater going forward.

However, because of the enterprise level process support now provided by PLM, you can no longer rely exclusively on engineering leadership to articulate the business case and sponsor the PLM program. If you do, you risk marginalizing the solution and failing to tap into substantial pools of value available in sourcing, quality, compliance, service, marketing and manufacturing. To do this you need to build cross-functional alignment on a program to exercise the power of the systems you already own by using all of the cylinders of your PLM engine (whether it is Italian, German, American or French.)
Developing your Roadmap to Evolve

The first step in the evolutionary process is to evaluate your current solution, benchmark performance and determine if an upgrade to the latest version of your PLM system will improve your core product development process. At the same time, you can evaluate the new modules and capabilities available from your PLM or complementary software providers to see if there is incremental value to be extracted from additional functionality.

With this analysis complete, it is then possible to develop a transformation story, PLM “Evolve” roadmap, conceptual systems architecture, and a supporting business case. We recommend taking the time to broadly educate the organization and align stakeholders behind the new PLM roadmap. Even if engineering or IT has been the primary driver of this planning work, you should create a cross-functional coalition to govern the program and deal with the inevitable conflicts that will arise as you pull together your team and seek the funding and organizational support required for your transformation.

At Kalypso, we work with clients across industries that use the leading PLM software platforms. Our “Evolve” methodology and tool set is designed to facilitate the process described above. “Plan” phase assessment projects can be completed in as little as six to eight weeks and put you on an evolutionary path with a strategy, roadmap and business case that can be used to create alignment and sponsorship.

Your plan will be unique and will likely not follow a perfectly serial path. Objectives from each phase may be combined or overlapped depending on your software platform and level of maturity. The key is to quickly get to the latest release and take advantage of new capabilities so that you can begin to optimize your processes, increase the return on your investment in PLM, and transform your business.

The PLM software market continues to evolve. We have come a long way in the last twenty years. PLM is a powerful tool that enables collaboration, reduces cycle times, improves efficiency, and makes the process of innovation more manageable. Companies that evolve their PLM get more from their innovation efforts, grow the top line, bring better products to market, and improve product quality.

It is time to look under the hood and push your organization to “let the ponies loose” and drive your PLM system the way it was designed to be driven. Arrivederci!

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