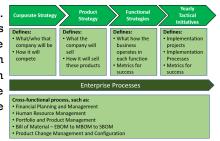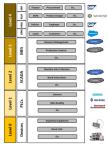# Five Key Concepts to Deliver an Enterprise PLM System

Developing an Enterprise PLM system for your organization can be a key differentiator in delivering new products to the marketplace with increased velocity, reduced development costs while improving the efficiency of your end to end business operations. In order to realize these aspirations, when you are planning your Enterprise PLM system, you need to keep in mind these Five Concepts:

1. Enterprise Process Architecture
2. Enterprise System Architecture
3. Enterprise Master Data Management
4. Holistic Product Data Inclusion
5. Enterprise Integrations

Enterprise Process Architecture

Organizations typically evolve from the basis of where the company originated from. Some organizations started as an engineering company and some organizations started as a production (build) organization and went on to be Design/Build and Service organizations. Based on their heritage, a company's perspective is typically focused from its starting point. In order to deliver an efficient Enterprise PLM System, the organization needs to ensure an enterprise process view and perspective. This is needed to ensure process efficiency, elimination of any potential gaps or overlaps in process and to ensure the business value stream is complete from initiation through execution and delivery.

Enterprise System Architecture

Enterprise System Architecture is essential in understanding and enabling the needed communication and integration needs to ensure efficient system and data flow for the organization. This is a key driver of being able to take the PLM Solution from an Engineering System and growing it into a product focused Enterprise Solution that is needed to realize the benefits for the larger organization. An enterprise system architecture contains the needed elements to organize, develop, manage and govern, the system elements and their respective capabilities to deliver a system environment that eliminates duplicity and redundancy while providing the best total cost of ownership for the Enterprise.

Enterprise Master Data Management

The concept of Master data management (MDM) came into being out of necessity for businesses to define and manage key data assets. This improves the consistency and quality of these assets and ensures elimination of redundancy and potential discrepancies. It results in developing the concept of a "Single Source of the Truth" for each type of data element. PLM, needs to be established as the "Single Source of the Truth" for all Product related data within the company.

Holistic Product Data Inclusion

For PLM to be recognized as the Enterprise "Single Source of the Truth" for all product related data, PLM needs to encompass all aspects of Product Data. This includes not only mechanical CAD data, but needs to include, Technical Specifications, Product /System / Subsystem requirements, ECAD, Firmware and Software components. PLM also needs to manage the lifecycle of this information from Idea, to Concept and Design, through Build and into Service.

Enterprise Integrations

To ensure that the Enterprise PLM and ERP as well as, other system components' information is made available for use to the overall organization, an Enterprise Integration is needed. This Enterprise Integration strategy is the "Stitching" that creates the closed loop of information for sharing. It will provide the needed management and elimination of any data duplication.

From our perspective, many organizations have implemented an Engineering PLM solution, however, there are only a small number of Enterprise PLM Solutions that have been implemented. If you'd like to discuss implementing an Enterprise PLM solution give us a call!

Next Month: The benefits of integrating PLM, ERP and MES