



What you should consider when developing your PLM Roadmap

It's 2018 and we are hearing a lot of conversation around the need for companies to digitally transform their organization. The merging of the digital and physical world, Industry 4.0 and the Internet of Things (IoT) - both within a company's operations, as well as, integrating connectivity into new product offerings, are all part of the digital transformation conversation.

The basis for success in this journey, centers around an organization's ability to digitally design, validate, build and service its products, processes and assets. When you think about Product Lifecycle Management (PLM), its intent, the business value it delivers, along with the financial benefit it returns, it provides the organization with the digital hub and the management of these assets that is needed to go from theory to reality.

In order to successfully plan and implement Product Lifecycle Management in your organization, there are 5 main areas you need to consider. These 5 areas are:

1. **Project and Portfolio Management**
2. **Bill of Materials**
3. **Product Change Management and Configuration**
4. **Product Validation**
5. **Product Information Management**

Project and Portfolio Management

This area concentrates on how to manage a company's innovation and product development, in terms of planning and execution with respect to financial investment, resource allocation and product market results.

This starts with the creation of the organization's product portfolio offering. This typically is divided into: Innovation and Product Families and the product roadmaps for each product family. It then manages the execution of the

product projects within each product family. Project dashboards are typically used to enhance visibility and collaboration.

After the product enters the marketplace, organization's create dashboards to measure product performance—typically in the areas of manufacturing efficiency, product cost, product quality and financial return.

The other main area is to utilize portfolio planning as the driver for understanding and managing the needed employee skillsets. This ensures that all of the organization's HR needs are identified and addressed in order to deliver the product offering to the marketplace.

Bill of Materials

The life line for any organization is the product bill of materials—it's the common language from innovation, to development, into manufacturing and sourcing through product service.

The evolution of these bills of materials from innovation to end of life, and how to manage this maturity, is key to creating a PLM roadmap that will encompass and deliver the enterprise needs.

You need to rationalize the bill of materials concept holistically as you design your PLM roadmap. This will ensure that the execution, even though it will be implemented in phases, will be built on a foundation that can expand successfully throughout the organization.

Product Change Management and Configuration

Building off of the bill of materials section, you need to understand how your organization will conduct it's day to day operations in the future. Design it for enterprise efficiency versus siloed functional optimization.

To simplify the approach and execution, you need to design the organization's product hierarchy so that workflows can be created to orchestrate the product change process through the functional departments and enterprise to configure the product.

This is essential to creating an efficient and collaborative work environment so that the organization can work through the different product lifecycles in an efficient and streamlined manner.

Product Validation

Product validation is an area that typically is viewed as being concentrated in the product development arena. We believe its a vital part in innovation, product development, manufacturing and service.

The ability to develop the plan needed for validation, facilitate the execution of the product validation for a robust product design, product manufacturing and service in the field, is all within this concept.

Product Information Management

Product Information Management can be divided into different sections based on functional areas. These areas typically are:

- ◆ Engineering—CAD/CAE, Technical Specifications, etc.
- ◆ Manufacturing—CAM, Process Specifications, CNC Programs, etc.
- ◆ Sourcing—Supplier Qualification, Supplier Scorecards, etc.
- ◆ Quality—Inspection Programming, Quality Processes, etc.
- ◆ Service—Services Processes, Service Incident Rates, etc.

The key is to ensure management of all the needed product and process information.

So, if you are thinking of starting, or are going through your PLM journey, you need to approach it from an Enterprise view in order to build a robust foundation that can be continually enhanced.

Coming in February: Keys to Driving a Successful Digital Transformation