

Business Process Management (BPM) for Manufacturing Wonderware Skelta BPM

By Gagan Babu, Technical Consultant, Invensys Operations Management

Introduction

This white paper emphasizes the importance of Business Process Management (BPM) for the manufacturing world. It describes the need for process institutionalization, as well as the business drivers for implementing BPM in manufacturing. This white paper also introduces you to Wonderware Skelta BPM, the BPM solution for Manufacturing.

The Manufacturing world involves three major components: **People, Assets, and Raw Materials**. An organization's efficient use of these resources provides them with a competitive advantage—an advantage which can be sustained, and changed, as the organization changes in response to variations in supply, labor force, technology advances and industry momentum.

In this era of globalization, competition is a primary driver of advancements, improvements, and sustainability. This competition ensures that consumers get maximum benefit from the services and products in the market. In a continuous drive to improve their offerings, manufacturing industries need to adapt to various cutting edge technologies which help them utilize their key parameters—People, Assets and Raw Materials—to get maximum yield in an economical way, passing on the cost or performance benefits to the end user.

The efficient handling of these parameters is critical to the success of any organization. A lack of synchronization between these three parameters will lead to a reduction of asset utilization, profits, and productivity excellence.

A solution connecting people, assets and raw materials is the basic building block of any organization. An ideal solution is one which helps monitor all three key parameters, defining actionable events and assigning them to the individuals responsible for follow up and remediation.

A solution which helps encompass the various manufacturing processes, people and assets not only helps the organization to avoid a loss of efficiency, but enables it to be productive and efficient.

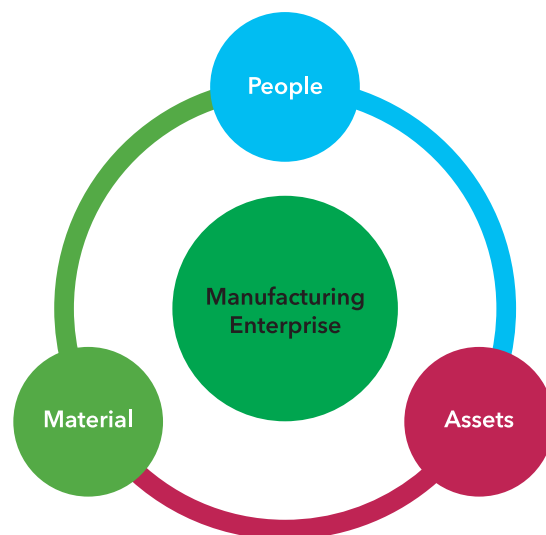


Figure 1
Manufacturing
Enterprise

The Need for Collaboration in a Manufacturing World

A typical manufacturing organization has various departments: R&D, Production, Maintenance, Quality, Health and Safety, Procurement and Sales, to name a few. Overseeing all of these departments is Operations Management; In order to ensure that Management can effectively execute strategy in a time bound manner, it is crucial that all departments move with clockwork precision. Apart from this, Management also needs to be informed of the performance and compliance of these various departments, which will help them continually improve processes, eliminate road blocks, maintain profitability and other actions that will help the business to perform better and succeed.

The primary focus of these manufacturing organizations is to achieve the optimum combination between Cost, Quality and Time (referred to as measures), which are controlled by the efficient use of its People, Assets, and Raw Materials, called on as participants. The end performance of the organization is highly dependent on a one to one relationship of each of the key participants with each of these measures.

For this to happen, enterprises need smart tools and solutions which will enable information transmission both horizontally and vertically across the organization. Manufacturing enterprises will benefit from a solution which helps them Model, Execute, Analyze and Improve processes enterprise-wide.

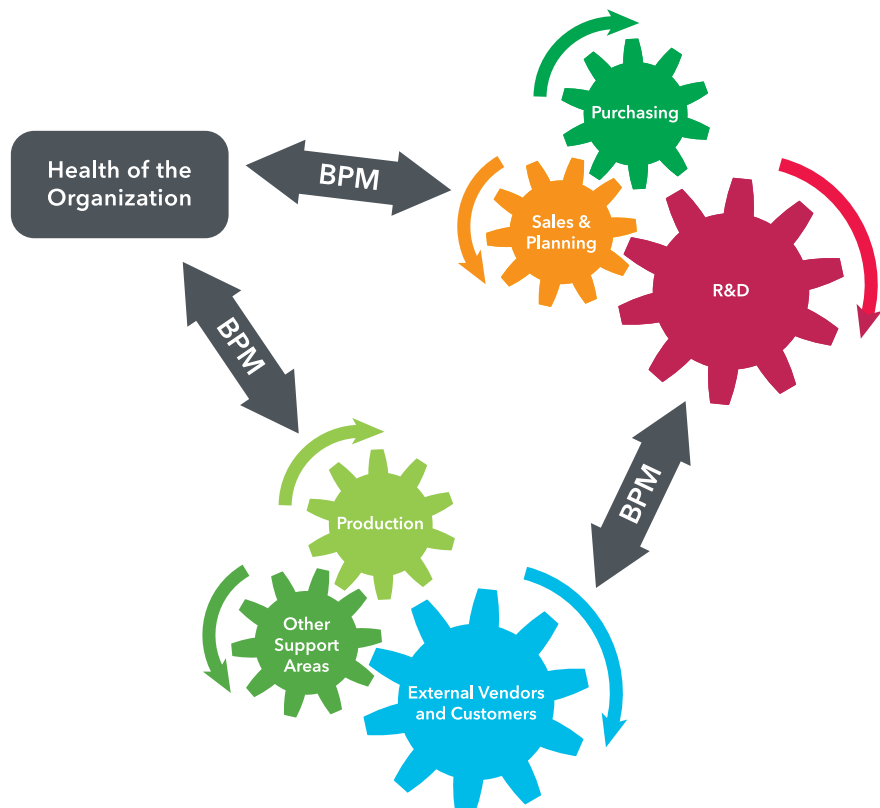


Figure 2
Manufacturing
Enterprise

The Need for BPM in Manufacturing

With an ever-changing ecosystem of competitors, suppliers and customers, it is of paramount importance for every organization to be able to rapidly adapt. The manufacturing industry, specifically, is highly dependent on people, assets and raw materials. It therefore needs a solution which will help monitor the health of each of its key parameters. In addition, this solution must also provide management a control over measures of its cost, quality and time across the organization.

The dynamic nature of the manufacturing world leads to a solution which will help manage business processes. This in turn monitors all the elements mentioned above and helps improve efficiencies, leading to manufacturing excellence.

Business Process Management is a methodology that helps a manufacturing organization to **Discover**, **Analyze and Design** processes built around its people, assets and raw materials. Processes to monitor business activities, if crafted carefully, will serve as a key differentiator for the organization to stand out in an ever-changing competitive environment.

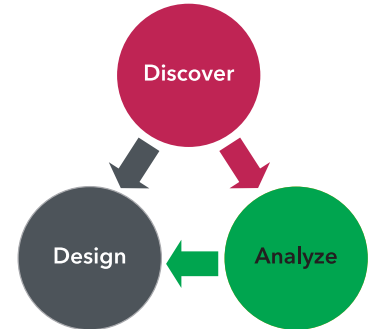


Figure 3
manufacturing organization to Discover, Analyze and Design

The need for BPM in a dynamic manufacturing world has come about to address the following events:

- The need to create process institutionalization, to capture the knowledge base of a retiring/aging workforce
- The need to rapidly address problems, isolate causes and drive to resolution
- Collaborative process remediation among all key/critical stakeholders in an organization
- Create an infrastructure to act upon real-time, event-driven data
- The need to improve accountability among the workforce to drive process improvements
- The need for visibility across the organization, to improve operations, detect variations, and monitor processes
- The need to capture information that resides in various plant/enterprise databases
- The need to maintain compliance with government, industry and corporate regulations

BPM plays a lead role in answering these “key care about’s” for manufacturers. BPM allows processes to be defined vertically, which can monitor activities, ranging from input of raw material to output of the final product, even extending to the supply chain to include warehouse and distribution/shipping and receiving.

Horizontally, processes can be defined to monitor **Assets, People and Raw Materials**, spanning the enterprise, from the “shop floor to top floor.” BPM can monitor unscheduled or ad hoc processes, bringing in contextual data from people, assets (such as equipment), and materials, providing structured, standardized approaches to operations, enhanced collaboration and better adherence to standard operating procedures.

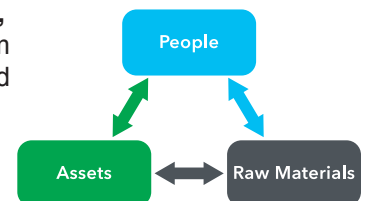
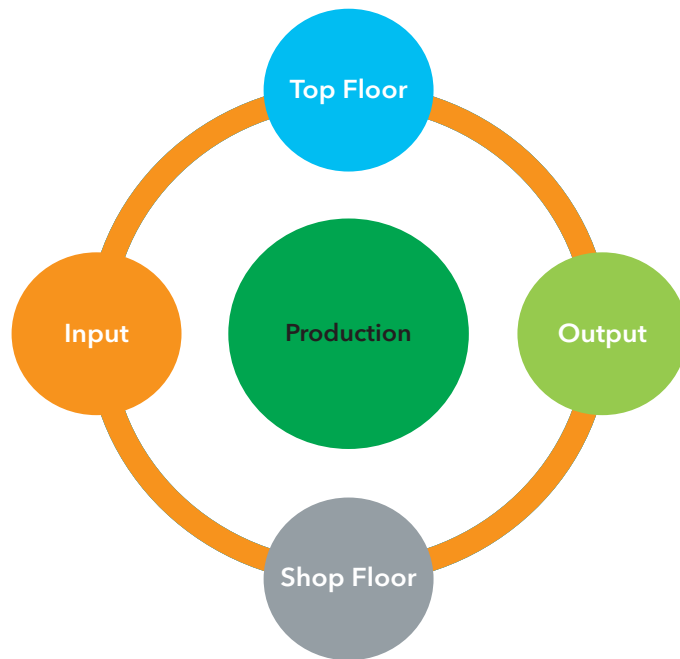


Figure 4
Assets, People and Raw Materials

Figure 5
Production processes



BPM then serves as a “one stop shop” to architect, change and optimize business processes across the organization.

Introducing Wonderware Skelta BPM

Wonderware Skelta BPM from Invensys Operations Management provides real-time, end-to-end institutionalization of processes across hierarchies in a manufacturing organization.

Productivity, both on the plant floor and the top floor, is a function of robust and complex processes. The ability to follow such processes, especially in the backdrop of disruptive events on the plant floor, is critical. End-to-end process management and procedural data management across hierarchies has always been an area of concern. Wonderware Skelta BPM addresses this concern by enabling comprehensive, end-to-end process institutionalization across a manufacturing enterprise.

Wonderware Skelta BPM provides a truly collaborative manufacturing environment enterprise-wide. Plant floor activities very often call for collective decision-making in order to help ensure optimum asset or resource utilization, with lower costs and effort. Wonderware Skelta BPM provides a collaborative environment that fosters innovation, thereby supporting efforts to sustain and improve your competitive edge.

Wonderware Skelta BPM empowers employees, from the plant floor to the board room, to make the “Right Decisions.” This decision support capability provides a standardized approach to unscheduled or disruptive events in your operations processes for maximized productivity, adherence to regulatory procedures and effective cost reductions. Wonderware Skelta BPM helps enable knowledge management across the enterprise. In addition to ensuring real-time collaboration, Wonderware Skelta BPM software enables process agility, enabling dynamic change management for work processes.

The confluence of information at the right time from both within the organization and the external environment is key to helping an organization succeed and help it position itself at on par as compared to its competitors.

Wonderware Skelta BPM supports the ability to meet your local and global compliance needs by providing accountable functions, like audit trails, dynamic escalation mechanisms and scheduling of assessments.

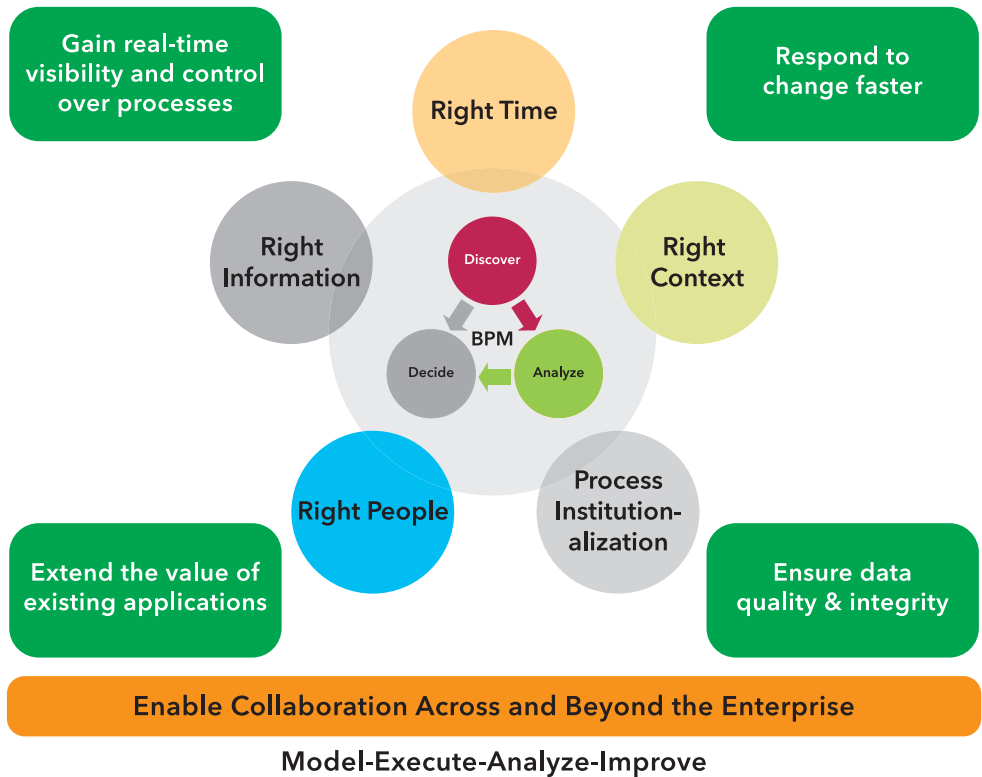
Figure 6
Wonderware Skelta BPM



Conclusion

Wonderware Skelta BPM addresses your need for Process Institutionalization and organizational collaboration, from the shop floor to the top floor and across its breadth. Wonderware Skelta BPM enables organizational agility and improved performance—reduced downtime, maximized productivity, reductions in operating costs, increased quality output and enterprise-wide knowledge management. Wonderware Skelta BPM enables Real Collaboration and Real-Time Results. In short, Wonderware Skelta BPM helps you Model, Execute, Analyze and Improve processes, resulting in a constant improvement in your organization’s performance.

Figure 7
Wonderware Skelta BPM



Invensys Operations Management offers the most holistic and cost-effective way to optimize the business impact of your operation's performance and overall profitability. We help improve the performance of your key resources (people, assets, energy and materials) in real time—with dramatic, measurable results—using a collaborative and open approach.

Real Collaboration. Real-Time Results.™