

Our LEAN Customers Case Studies



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*Learn how Smith & Nephew
charted a roadmap for
implementing LEAN on SAP®*

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Our LEAN roadmap services:

LEAN practitioners know that LEAN is a journey and not a destination. The goal of our LEAN roadmap services is to create possible pathways and assist you travel on your LEAN journey in line with your business.

Specifically, our roadmap services address the following key objectives:

- a. Develop a business case on how LEAN can improve your financial performance and shareholder value.
- b. Understand state of current LEAN initiatives in your organization and identify points of operational value.
- c. Develop a roadmap for enabling LEAN manufacturing processes on SAP® and provide a phased approach and different options for implementation.
- d. Identify opportunities with your current SAP® solutions to:
 - i. Support your current LEAN initiatives and,
 - ii. Prepare for transitioning into future state LEAN processes using SAP® LEAN solutions.

Smith & Nephew (NASDAQ:SNN)

Smith & Nephew is a UK based global medical technology company specializing in orthopedic reconstruction, trauma and clinical therapies, and endoscopy and advance wound management products. The company operates in over 32 countries for over 150 years with annual sales of over \$3.4 billion.

Situation

The three divisions namely, Orthopedic, Endoscopy, and Wound have historically worked as three independent business units. Their manufacturing processes and information systems are completely independent of each other. While Wound division uses BPCS as their ERP system, Orthopedic and Endoscopy divisions use SAP®. But the two are on two different instances and their business processes are configured completely differently.

Challenge

All the business divisions are capacity constrained. The inventory turns are less than two and the order fulfillment rate is less than 90%.

A more flexible manufacturing environment will not only help the company reduce inventory holdings but also serve the customers on time.

Supporting a diverse set of applications often serving the same business purpose for different divisions is a challenge for the IT organization.

As part of corporate strategy, the management has decided to convert all the manufacturing facilities into LEAN. They have converted a few pilot product lines into LEAN cells already and plan to convert the entire manufacturing facility into LEAN in a foreseeable future.

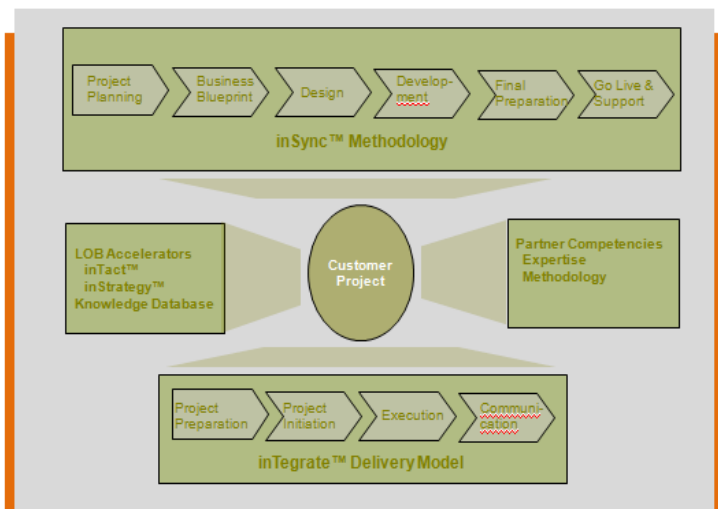
The management is challenged with:

- Managing a large number of products in pull environment and also a large number of products in push environment until they are converted into LEAN.
- Implementing new set of performance metrics more suited for LEAN processes.
- Creating real time LEAN dashboards to monitor manufacturing execution in real time.
- Bringing in organizational change in the IT organization to support the new LEAN systems.

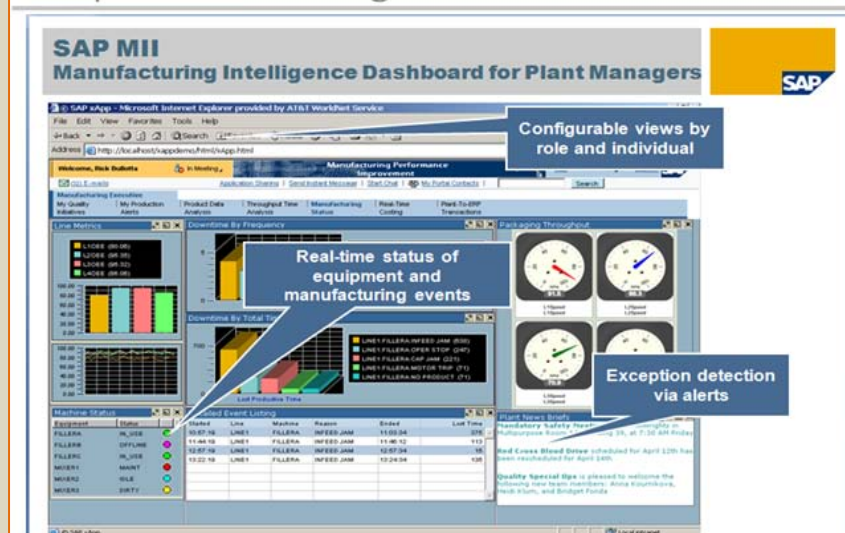
Common themes:

- 1 Forecast accuracy is a common concern for all the plants. Forecast accuracy is higher at product group level (> 75%) but very low at SKU level (as low as 40%).
- 2 Can low volume products be managed using PULL systems? Scheduling product mix consisting of “runners”, “repeaters”, and “rogues” posed challenges for all the plants.
- 3 Key LEAN metrics such as EPEI (every part every interval), WIP-to-SWIP, dock-to-dock time, and available capacity at value stream level are yet to be developed.
- 4 Production orders are used to record and track production. They don't seem to add any value.
- 5 Material shortages are determined at the work order level which is often too late.
- 6 Manual spreadsheets are used to calculate and monitor KANBANS. As more and more product lines re moved over to LEAN, maintaining these spreadsheets manually will become cumbersome.
- 7 Current LEAN initiatives are focused around making physical changes on the floor, reducing change over times, standardizing work, improving OEE and so on
- 8 While KAIZEN events are assigned specific improvement targets, monitoring improvements at value stream level are hard to audit
- 9 All the plants managed long term contracts and supplier relationship outside of SAP.
- 10 There is a need to implement “best practice” for “available to promise (ATP)” and “material allocation” to customers.
- 11 Need to implement “best practice” for sourcing materials that are managed using push (MRP) during transition to LEAN.
- 12 Though based on extracts from SAP®, most decision support metrics are maintained on manual spreadsheets.

How we do: a comprehensive approach



Simplification using SAP® MII



Key recommendations:

Develop a portfolio of products that are best suited for different forecast models based on the following metrics.

Classify products based on distribution of demands into products that should be held in inventory and those that should be produced only to a confirmed order.

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Apply mixed model LEAN techniques to manage production.

Classify products based on distribution of demands into products that should be held in inventory and those that should be produced only to a confirmed order

Use Heijunka schedule to level mix and volume at pace maker work center.

Use signaling process to ensure that the upstream processes are in sync with the pace maker production schedule.

Use adherence to target inventories, capacity utilization, and production flow (EPEI) to measure performance of the

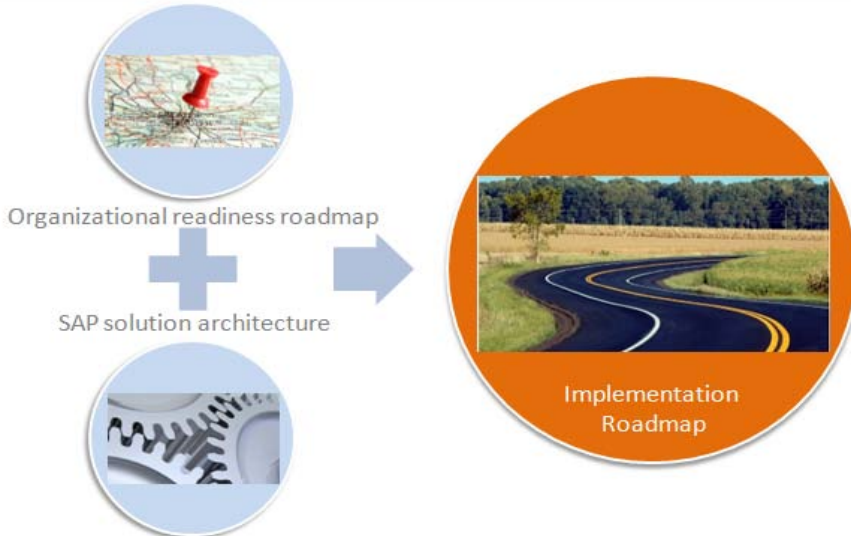
Use throughput, capacities, changeovers, cycle times, batch sizes (frequent run quantities), scrap, adherence to recommended trigger point and KANBAN sizes as the key performance metrics to monitor supermarket work centers

Implement SAP SNC to improve supply demand visibility and facilitate easy open transactions with suppliers

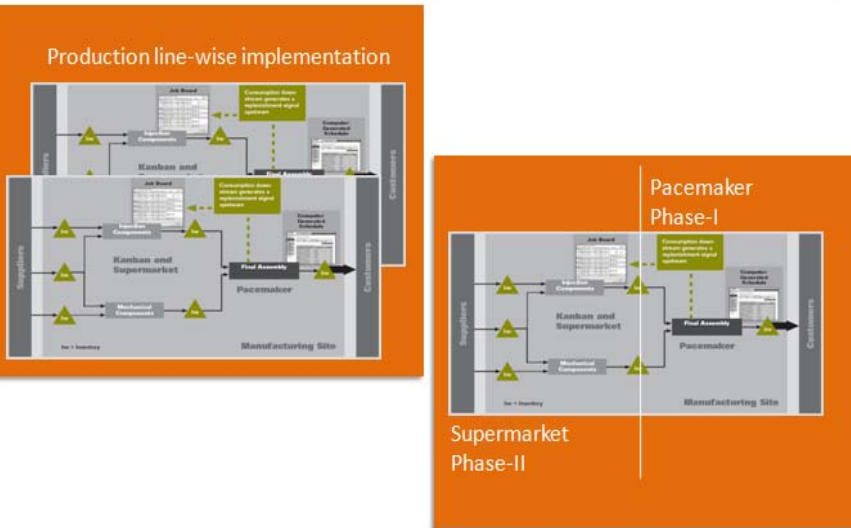
Using real time visual shop floor analytics enabled by SAP MII would eliminate manual metrics maintenance.

SAP BusinessObjects Profitability & Cost management solution may be used at a later stage for a comprehensive LEAN metrics reporting.

Implementation roadmap

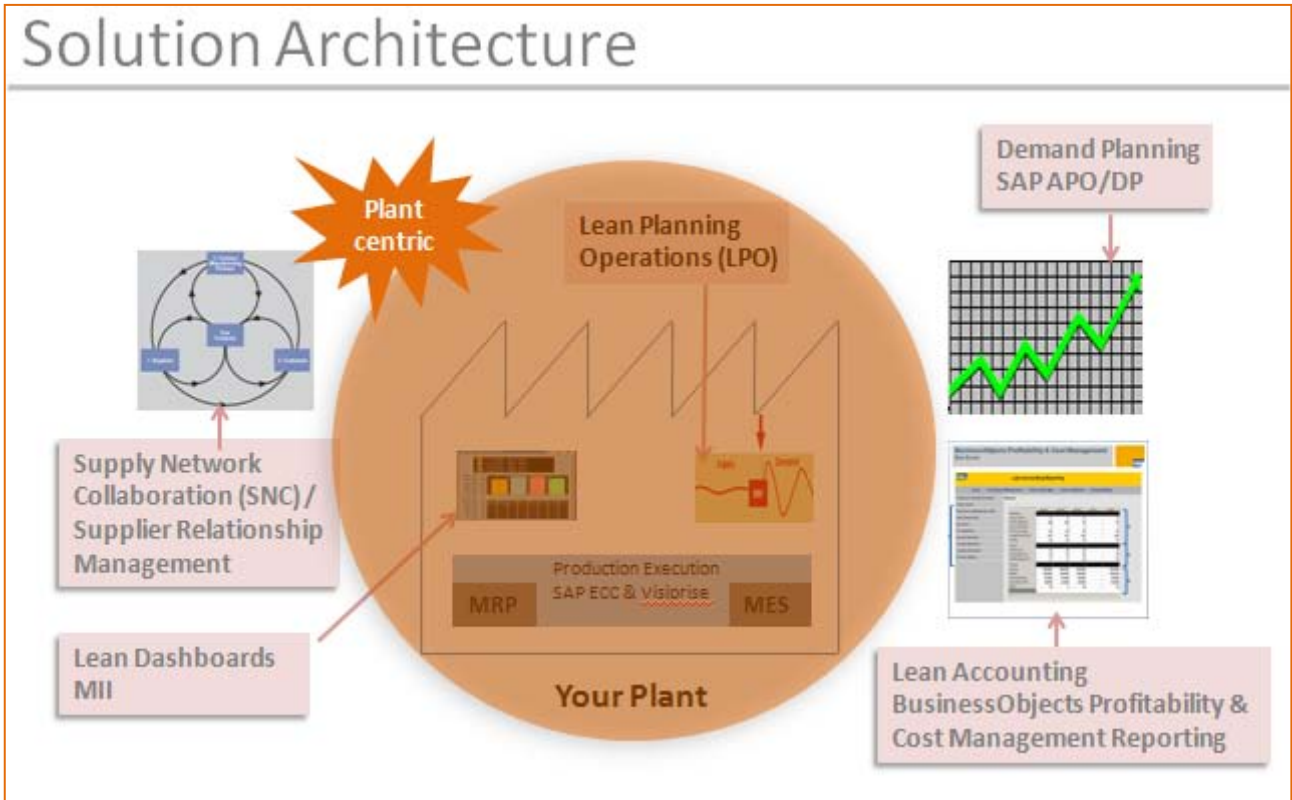


Simplification using SAP® LPO



Outcome

A comprehensive solution architecture using SAP® suite of solutions is developed. This is then used to create an implementation roadmap.



Next steps

You don't have to implement all the components of SAP LEAN solution at the same time. You don't have to put all your product lines on SAP LEAN at the same time. A well planned vertical or horizontal incremental approach can make your implementation smooth.

From LEAN business strategy to its implementation on SAP, Lean Axis combines LEAN industry experience with SAP implementation expertise to create solutions that bring real, tangible business value. We strive to increase business velocity, staying ahead of our client's needs with innovative solutions that deliver a rapid return on investment.

Lean Axis welcomes the opportunity to talk to you more about how we can help you to be more successful with your LEAN initiatives on SAP. Please contact us under: info@LeanXis.com or call us at 408-802-1636.