

# MAXIMISE MANUFACTURING TOGETHER >>

Developing the Perfect Plant



**HOW DO MANUFACTURERS IMPROVE QUALITY AND INCREASE THE FLEXIBILITY OF THEIR OPERATIONS TO REALISE THE OBJECTIVE OF THE 'PERFECT PLANT'?**

# CONTENTS >>

- » **The search for success** **4**  
The challenge facing manufacturers as they seek to develop the Perfect Plant.
- » **The benefits of true ERP to shop floor integration** **6**  
What does the Perfect Plant look like and how can it be achieved?
- » **Maximise Manufacturing Together** **8**  
How Atos Origin and SAP can help you realise your business goals.
- » **Towards fast and agile manufacturing** **10**  
Implementation and a summary of benefits.



## Management summary

The pressure on manufacturing is intense – and it's not going to get any better in the short-term. Enterprises remain under constant pressure to deliver innovative products, respond to customer demands more quickly, and improve efficiency. The Maximise Manufacturing Together initiative can help your company achieve this by enabling the integration of enterprise resource planning (ERP), manufacturing execution systems (MES) and other plant systems into a single source of company data.

# THE SEARCH FOR SUCCESS

Manufacturing isn't getting easier. Enterprises remain under constant pressure to deliver innovative products, respond to customer demands more quickly, and improve efficiency. Furthermore, the challenges created by globalisation, increasing regulatory demands, mergers and acquisitions, complex supply chains and operational costs remain.

## Many manufacturers are asking a number of key questions:

- » How can I be a lowest cost manufacturer?
- » How do I reduce waste?
- » How can I improve efficiency?
- » How can I improve my production scheduling?
- » How can I improve plant utilisation?
- » How can I gain a higher return on capital employed?
- » How can I eliminate product recalls?

The drive to reduce costs, improve quality and increase the flexibility of their manufacturing operations has created a pressure to transform plant from a necessary cost into a source of profit and innovation – to become a truly responsive component of the larger supply chain.

No single answer exists, and the search for potential solutions normally results in an approach requiring a large capital investment and a long-term payback. When production and operations directors request feedback from their operations staff about what is required to reduce costs or improve performance, responses typically identify the need for:

- » More or better qualified staff
- » Faster/higher capacity equipment
- » More storage or production space
- » Improved reliability of process equipment
- » Faster and more reliable packaging machines
- » Automation or improved controls
- » More real-time actionable information.

This is often what is required, but how does the manufacturer know which is the right one and which will yield the greatest business benefits?

In response to this challenge, Atos Origin has aligned with SAP's Industry Business Units to jointly offer the Maximise Manufacturing Together (MMT) approach, to provide a comprehensive answer to these questions and to enable manufacturers to realise the vision of the MMT Perfect Plant.

Atos Origin has a number of key strengths in the manufacturing sector:

### Our people

Global SAP/ERP implementation specialists, including Perfect Plant and MES skills with extensive industry knowledge.

### Affordable pricing

Balanced use of global sourcing to reduce costs and provide focused industry expertise to compress timescales.

### Our style

Pragmatic, hands on approach, working with you to maximise knowledge transfer and effectively execute change, whilst remaining realistic and flexible to client needs.

### Governance

Utilisation of our experience of working with clients and SAP in a collaborative quality model.

### Experience

Track record of delivering complex Global Projects.



**ATOS ORIGIN HAS ALIGNED WITH SAP'S INDUSTRY  
BUSINESS UNITS TO JOINTLY OFFER THE MAXIMISE  
MANUFACTURING TOGETHER (MMT) APPROACH**

# THE BENEFITS OF TRUE ERP TO SHOP FLOOR INTEGRATION

In an effort to improve their decision making processes, manufacturing companies are looking for solutions that help them exchange real-time data across their enterprise. The MMT Perfect Plant initiative can help your company achieve this goal by enabling the integration of enterprise resource planning (ERP), manufacturing execution systems (MES) and other plant systems into a single source of company data.

Probably the most difficult balancing act for manufacturers today is to improve the visibility of operations within the factory, aligning operations with the immediate demands of the enterprise to maximise profits now, making the factory a source of collaborative innovation for the future, and maximising return on investment.

A three-way balancing act is required, including an optimised process view of operational planning, asset performance and execution scheduling. Most of the detailed information required to support these processes is buried in the shop floor systems and not visible to the wider enterprise.

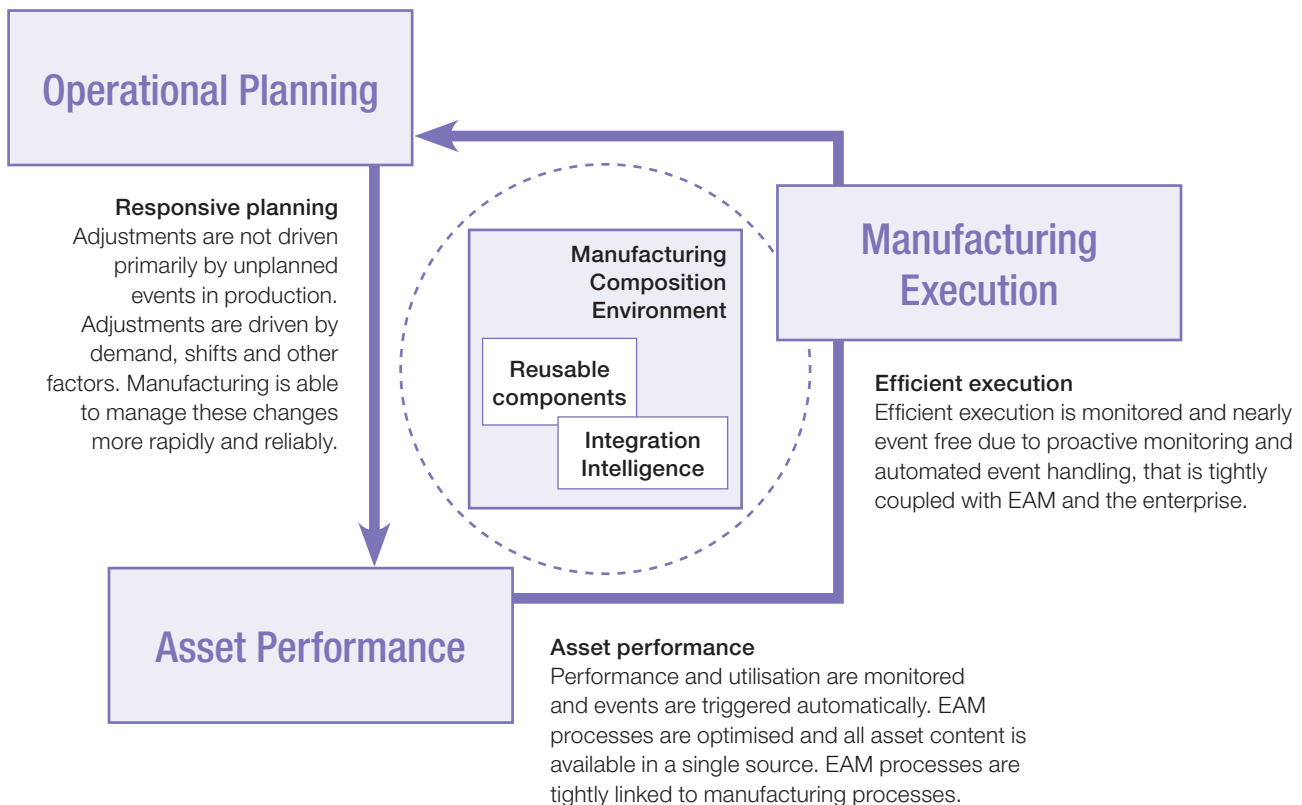
What is needed is an approach which allows access to this detailed information and enables the right decisions to be made, both operationally and strategically. We need to allow the people to see the wood from the trees – by getting the right balance in manufacturing.

Gaining visibility of the detailed plant information, however, must be done with care and focus as the typical manufacturer is under immense pressure to deliver immediate results. Atos Origin has developed a benefits led approach to the delivery of the plant information, aimed at making the best use of existing plant systems data, putting the data in context with the enterprise view and maximising its decision support potential.

The MMT Perfect Plant is attainable through a set of measurable, repeatable and practical steps. To enable this we have captured the concepts in the MMT Perfect Plant vision and translated them into the components of delivery.



Probably the most difficult balancing act is to align operations with the immediate demands of the organisation in order to maximise profitability.



**MMT helps companies achieve the Perfect Plant:**

- » Enhancing the value of investment in existing enterprise applications
- » Simplifying business processes delivered to the front-line operator
- » Exploiting the existing manufacturing infrastructure and data sources
- » Integrating shop floor information with the rest of the enterprise
- » Providing actionable intelligence through role-based portals
- » Supporting operational excellence programs and teams in real-time – LEAN 2.0

**Benefits:**

- » Quick implementation by using rapid prototyping to design, develop and test solutions
- » Enables personnel to detect gaps and design solutions across the supply chain
- » Speeds time to value by working with experts to build and test solutions
- » Reduces risks by using SAP certified applications and hardware
- » Improves decision making by creating models based on simulation results.

MMT through its 'next practice' approach exploits the power of Enterprise Architecture tools to capture the vision of Perfect Plant. MMT then analyses the desired state as a set of business objectives and performance KPIs, and then applies the proven design principles of 'define once, deploy many times', to create an SAP and plant level integration model which can be repeatedly rolled out based on the existing plant infrastructure.

The Perfect Plant provides visibility for all aspects of manufacturing operations, speeding up response times, minimising disruptive impact to the business and bottom line, while maximising yields, asset utilisation and order fulfillment.

MMT explicitly links the business benefits, represented in the Perfect Plant vision, with the components of the infrastructure through a defined set of project execution steps, in short a time-boxed plan, adding value to existing investment in SAP and shop floor/ MES systems.

MMT allows the strategic vision of the divisional vice president to be realised in a program rollout plan by the IS Director, and be delivered to the plant jointly by the IT and engineering communities.



**THE 'NEXT PRACTICE' APPROACH EXPLOITS THE POWER OF ENTERPRISE ARCHITECTURE TOOLS TO CAPTURE THE VISION OF THE PERFECT PLANT.**

# MAXIMISE MANUFACTURING TOGETHER

Maximise Manufacturing Together (MMT) is a joint initiative with SAP, targeting the automotive, hi-tech/ discrete industries, chemicals/pharmaceutical, oil & gas and CPG clients with SAP solutions. It's designed to help manufacturing companies innovate infrastructure and align software while implementing world class next practice SAP solutions in order to achieve IT landscape flexibility and reduce cost.

Atos Origin has established Centers of Expertise (CoE's) with advanced thought leadership, pre-configured solutions and repeatable practices for each of the focus industries. Manufacturers benefit from the faster implementations that this approach makes possible and the application management efficiency that it provides.

The key targets of MMT are:

- » Reducing TCO
- » Optimising operation and service delivery
- » Developing a common integration model and common process definition
- » Standardising on a common platform
- » Maximising the value of innovation/business value engineering.

The MMT was launched at Sapphire Paris 2006 and simultaneously in the Asia Pacific market, with the establishment of manufacturing competence centers (CoE's) for chemical industries in Germany and China. These addressed enhancing business value with an industrialised, flexible IT landscape initially based on SAP ECC 6.0 and subsequently with Business Suite 7.



**ATOS ORIGIN HAS ESTABLISHED CENTERS OF EXPERTISE WITH ADVANCED THOUGHT LEADERSHIP, PRE-CONFIGURED SOLUTIONS AND REPEATABLE PRACTICES FOR EACH OF THE FOCUS INDUSTRIES**

## INCREASE FLEXIBILITY ACROSS THE SUPPLY CHAIN

It is critical to align manufacturing business processes with suppliers so that the entire supply chain can adapt and respond. Atos Origin provides solutions for managing business processes across the supply chain, as well as improving the ability to manage planning, sourcing, scheduling, procurement, delivery, accounting and regulatory compliance.

As a result, manufacturing companies can implement the best solutions to improve business processes with suppliers, and can enhance flexibility to meet changing market demands and respond more quickly to new business opportunities.

## REALISE YOUR BUSINESS GOALS

Changes are often interconnected, resulting in interdependencies between the projects within your portfolio. At the same time, skilled resources become more and more scarce. This result-driven approach on one side and complicating factors on the other creates a need for the leadership of a professional project manager.

Specific factors determine project success. Many of these are related to communication and dealing with people: the people commissioning the assignment, line managers, end users and project employees. What connects Atos Origin project managers is their 'people attitude'. Using well-known project management theories and methods alone is no guarantee for a successful project. Project management isn't something you do 'additionally', it is an essential element of success.

Atos Origin has broad experience in managing many types of project:

- » Development of goods and services within determined requirements of time, money and quality
- » Implementation of services, products, systems, procedures and responsibilities
- » Integration of products and services, cross-departmental, cross-business and cross-border.



Project management also isn't something you do 'additionally'. It's an essential element of success.

# TOWARDS FAST AND AGILE MANUFACTURING

It is necessary to challenge the existing business processes within organisations and to identify those areas where re-engineering of the current integration scenarios may enable the delivery of maximum advantage. It should be noted that not all the integration challenges are SAP oriented and rely on the implementation of industry emerging standards such as S95, and previously S88, to future-proof technical design and build – but more importantly derive maximum ROI from such an undertaking.

In addition to MES implementation design, consideration also needs to be given to the ongoing activities of replacing out-dated process control equipment in the plants which may require the adoption of field bus or other plant standard interfaces.

Typically, many of the key benefits of the integration of MES with the Plant Control systems will only be derived by a co-ordination of activities between the various teams involved. Ideally, an integrated project team is required for the total solution implementation and, as such, selection of a partner who can provide all the elements of the integration scenarios, SAP ERP, MES and industry knowledge is vital for success.

The joint implementation of the SAP ERP system and MMT Perfect Plant will produce a significant step change in the reliability of processes and data. The obvious benefits from the implementation of a uniform method of shop floor data collection and reliability of the data collected will enable manufacturers to identify those areas where the processes can be analyzed and optimised.

The key business requirements derived from the Perfect Plant integration can be summarised as follows:

- » Standardised for business processes
- » Clear and accountable measures and KPI's
- » Real-time business information
- » System transparency across processes
- » Connectivity to shop floor control systems
- » Information to achieve 'Right First Time'
- » Support for third party connectivity
- » Support future development needs.

Therefore, MMT Perfect Plant helps businesses to realise key business benefits to be delivered as part of the implementation:

- » Stable and supportable platform enabling continuous improvement
- » Existing SAP platform improved with extended integration
- » One way of doing things across all sites
- » Promotion of change and cultural benefits
- » Data entry minimised
- » 'Shop floor to Top floor' solution
- » Full traceability and accountability
- » Improved consistency and quality of product due to inherent controls
- » Accurate representation of plant reliability and performance will help drive improvements

## ABOUT ATOS ORIGIN

Atos Origin is an international information technology services company. Its business is turning client vision into results through the application of consulting, systems integration, and managed operations.

Atos Origin has more than 25 years' experience in the implementation of SAP solutions and has a strong global manufacturing heritage. It is an SAP global services partner, an SAP global hosting partner, a member of the SAP NetWeaver Partnership Initiative, and a leading member of the Enterprise SOA Adoption program.

It has completed more than 2,500 projects and has more than 5,000 SAP consultants worldwide. Atos Origin won the 2006 and 2008 SAP Pinnacle award in the hosting/application management of SAP applications category and a finalist in 2009 for the categories: Netweaver Showcases, Ramp-up, Go-to-Market (MMT) and MOVE – Upgrade.



**THE JOINT IMPLEMENTATION OF THE SAP ERP SYSTEM AND  
MMT PERFECT PLANT WILL PRODUCE A SIGNIFICANT STEP  
CHANGE IN THE RELIABILITY OF PROCESSES AND DATA**

## About Atos Origin

Atos Origin is an international information technology services company. Its business is turning client vision into results through the application of Consulting, Systems Integration and Managed Operations. The Company's annual revenue is EUR 5.5 billion and it employs 50,000 professionals in 40 countries. Atos Origin is the Worldwide Information Technology Partner for the Olympic Games and has a client base of international blue-chip companies across all sectors. Atos Origin is quoted on the Paris Eurolist Market and trades as Atos Origin, Atos Worldline and Atos Consulting.

## Contact us

For more information please email [more-info@atosorigin.com](mailto:more-info@atosorigin.com)

**MAXIMISE MANUFACTURING TOGETHER ENABLES AN ORGANISATION TO CHALLENGE ITS EXISTING BUSINESS PROCESSES AND TO IDENTIFY THOSE AREAS WHERE RE-ENGINEERING CAN DELIVER MAXIMUM ADVANTAGE.**