

SAP's 'Perfect Plant' Initiative Close but Not Perfect Yet

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SAP's initiative emphasizes integration of plant operations and asset management. This will enable manufacturers and asset-centric enterprises like utilities to focus on improving their operating units' performance.

NEWS ANALYSIS

Event

On 2 April 2007, at the SAP-Centric EAM conference, SAP introduced its "Perfect Plant" initiative. The initiative is designed to help asset-intensive enterprises like utilities and manufacturers achieve optimal performance from operating plants. Rather than being positioned as a product, the initiative is a model of how companies should architect their IT — using SAP and its ecosystem partners — to strive for the "perfect plant."

Analysis

With the Perfect Plant initiative, SAP has made an extremely strong statement regarding its commitment to plant-level computing. The initiative combines a philosophy of plant operations with an architectural model of how to implement SAP offerings in pursuit of that philosophy. We believe this activity by SAP is well aligned with the desires of users, and that it will provide existing SAP customers with needed guidance on how to implement SAP in a service-oriented architecture (SOA) environment. A key element of the Perfect Plant model is xApp Manufacturing Integration and Intelligence (xMII) — which supports SAP's adaptive manufacturing strategy and is part of the xApps portfolio — as a "plant-level" NetWeaver integration hub. This positions xMII as much more than just an xApp for manufacturing key performance indicator (KPI) delivery.

This architectural statement by SAP will bring together the real-time environment of the plant and the transactional environment of business systems. By positioning xMII as the common integration hub at the plant level, SAP has staked a claim as the architectural integration point. For this reason, Gartner believes that while the SAP initiative is on target, many enterprises may find it difficult to implement. Perfect Plant has brought to the forefront ownership issues of plant technology vs. business IT that will likely take enterprises years to resolve. Many have made significant investments in other plant-centric integration architectures — such as those provided by the distributed control system (DCS), programmable logic controller (PLC) or manufacturing execution system (MES) vendors — making it difficult to justify the additional spending required to deploy xMII at every facility to enable Perfect Plant. Gartner observed initial reactions by users attending the SAP-Centric EAM event that validate our assertion.

Enterprises also must take care not to misinterpret the Perfect Plant philosophy. While it emphasizes deriving the most from each asset through a combination of asset utilization and performance optimizations, it does not demand point optimization of each asset. It's important to remember that it may not always optimize the business to run every asset at its maximum potential. Optimizing individual units does not guarantee optimization of the whole business. At times, it may even be better for the business as a whole to run some plants below peak efficiency.

RECOMMENDATIONS

- **Asset-intensive industries (like utilities and manufacturing companies) that use SAP:** Investigate the Perfect Plant initiative, which will force you to make difficult architectural decisions. Whether you chose to use xMII as your integration hub or take an alternative approach, you will at minimum be positioned to achieve the objectives that the "Perfect Plant" philosophy promotes.

- **Customers of competing business suite vendors:** If you seek to start over in your approach to comprehensive business application deployment, recognize that the vision of Perfect Plant could be a compelling argument to evaluate SAP's offerings.

RECOMMENDED READING

- "MarketScope for MES Software, 2006" — MES vendor viability has progressed, but as the market polarizes to control system and enterprise resource planning, the smaller independent vendors will survive only by focusing on the vertical markets. **By Andrew Hughes and Kenneth Brant**
- "Manufacturing Operations Management Adds Value Context to MES" — The need for value from global production facilities is driving increased use of MESs and manufacturing operations management. **By Andrew Hughes and Kenneth Brant**

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