



NAVIGATING POST-SAP MII ERA: A STRATEGIC PATH FORWARD

Abstract

After ruling the roost for over two decades, SAP MII is set to exit the stage as technological evolution drives enterprises toward smarter, connected operations. The limitations of manufacturing integration platforms like SAP MII (Manufacturing Integration and Intelligence) are starkly evident as AI and IoT take centerstage. While SAP MII has served as a foundational tool for bridging shop-floor data with enterprise systems, the shift toward Industry 4.0, cloud-native architectures, lightning data integrations and edge computing demands a more agile, scalable, and future-ready approach.

This whitepaper explores the strategic transition for enterprises that have used SAP MII over the years. It examines emerging technologies such as SAP Digital Manufacturing (DM), edge integration frameworks and IoT-enabled platforms.

Preface

Manufacturers use SAP MII as an MES platform to integrate various systems across the ISA-95 stack, manage production processes, and gain real-time visibility into manufacturing operations. SAP MII's sunset is planned for the end of 2027, marking the end of SAP's mainstream support and product development for SAP MII. It means that SAP will no longer provide updates and support, except for critical fixes for a limited time.

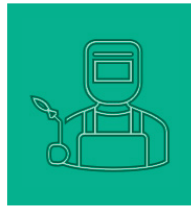
As MES remains a critical application for businesses to maintain uninterrupted production, it necessitates careful planning and consideration for a seamless transition out of SAP MII. The transition from SAP MII to another suitable platform requires effective timing and planning, considering factors such as existing infrastructure, customizations, data migration and adoption. Organizations need to assess their specific requirements and engage with vendors and implementation partners to ensure a smooth migration out of SAP MII.

This journal outlines key considerations for migration, including data continuity, system interoperability and workforce enablement. By presenting a roadmap for modernization, this paper aims to guide industry leaders in harnessing next-generation manufacturing intelligence solutions that align with digital transformation goals and operational excellence. It is intended for informational purposes and does not endorse, recommend, or support any specific application, product or services mentioned herein.

Intended Audience



- Manufacturing IT Leaders (IT teams and sponsors)
- Ensure smooth migration out of SAP MII



- OT Leaders/ Plant Managers
- Maintain production continuity and ensure minimal disruption



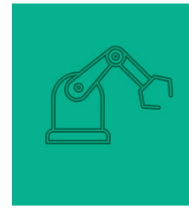
- SAP MES consultants
- Enrich consultants with way forward after SAP MII; Reskill for post-MII technologies



- System integrators and SAP partners
- Provide migration services and new solutions



- Compliance and Quality manager
- Maintain traceability and audit trails



- Digital transformation Leaders/ Industry 4.0 strategist
- Integrate Cloud, Edge, AI/ML capabilities in manufacturing



What necessitates the replacement ...

Planning early for the replacement of SAP MII is essential for several reasons:



End of support considerations

- SAP MII mainstream support reaches end of life on 31st December 2027 with extended support until 2030.
- Planning early ensures that organizations do not face security and compliance risks associated with unsupported software.



Limitations of SAP MII for a future state manufacturing ecosystem

- SAP MII is primarily an on-premise system. So application scaling depends on local hardware setup, without AI or edge computing capabilities.
- A more agile and scalable cloud native architecture is required to support Industry 4.0, additive and dynamic manufacturing.



Complexities in migrating out of MES platform

- Involves data migration, system configuration and integration complexities.
- Minimal disruption to ongoing operations is imperative.
- Early planning allows sufficient time to assess these complexities and develop a detailed migration strategy.



Strategic Alignment

- Organizations may need to align their IT strategy with evolving business needs, technological advancements and industry standards.
- Decision-making on transitioning to SAP DM, or exploring other vendor offerings that better meet current and future requirements



Resource Allocation

- A well-planned replacement strategy allows organizations to allocate resources effectively.
- This includes budgeting for new software licenses, consulting services, training for IT staff and end-users, and potential infrastructure upgrades or changes required for the new system



Opportunity for Optimizations

- Replacement of SAP MII presents an opportunity for organizations to optimize their manufacturing processes and IT landscape.
- This may include streamlining processes, enhancing data analytics capabilities, improving integration with other business systems and adopting newer technologies that support Industry 4.0 initiatives.

Synopsis of SAP MII implementation scenarios

Ever since its inception as Lighthammer, SAP MII has evolved from being a basic manufacturing

execution application to an agile and broader platform, supporting several implementation scenarios within Manufacturing Operations & Management.

We have outlined a few commonly implemented scenarios below that lay the foundation for a strategic migration into a new landscape.

As an MES platform

More than an application, MII is a platform for custom-building MES solutions. It provides complete flexibility to build them the way customers want, from both the backend and frontend perspectives. Often, these solutions act as a light MES for the manufacturing setup to fulfil manufacturing operations requirements and eliminate the need for a full-fledged, costly MES application.

SAP MII is positioned at Level 3 of the ISA-95 Architecture, for a manufacturing landscape with numerous in-built and supported capabilities. It can cater to multiple implementation scenarios based on the business requirements and overall manufacturing setup.

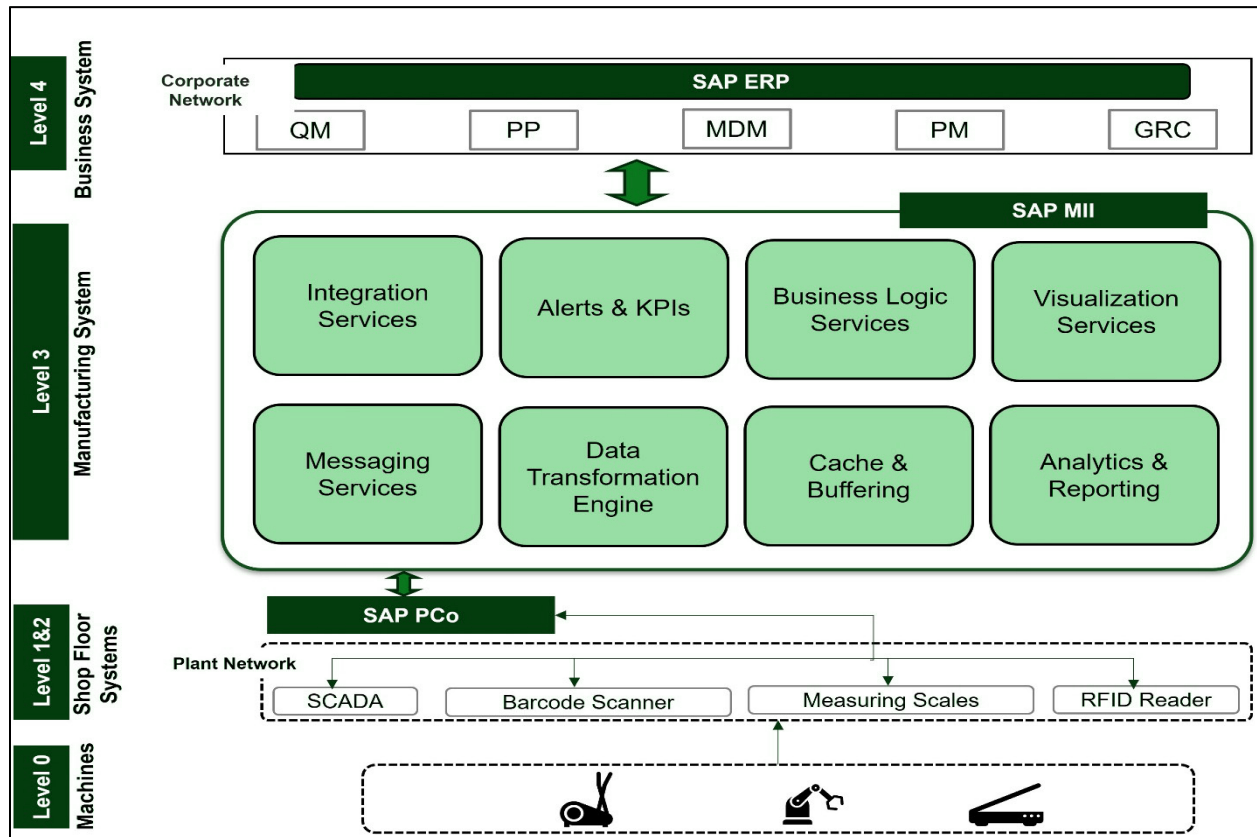


Figure 1 – SAP MII in ISA-95 Architecture

ERP integration

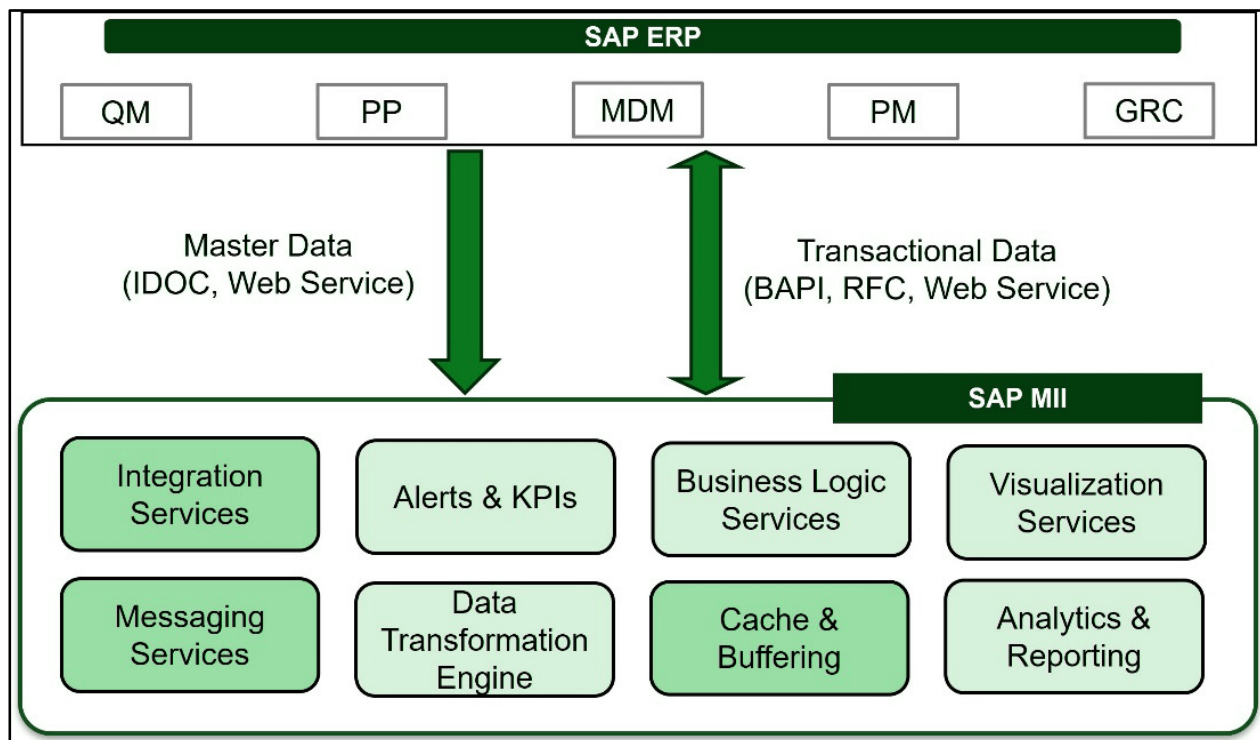


Figure 2 – SAP MII Integration with ERP

An ERP, also referred to as Top Floor or Business Layer, can be seamlessly integrated with SAP MII to upload manufacturing master records and enable bi-directional exchange of transactional data. MII comes with standard integration protocols such as Java Connector (JCo), Java Resource Adapter (JRA), and Message Listener to support these through BAPI, RFC, IDOC, Web Service, etc.

Shop floor Connectivity

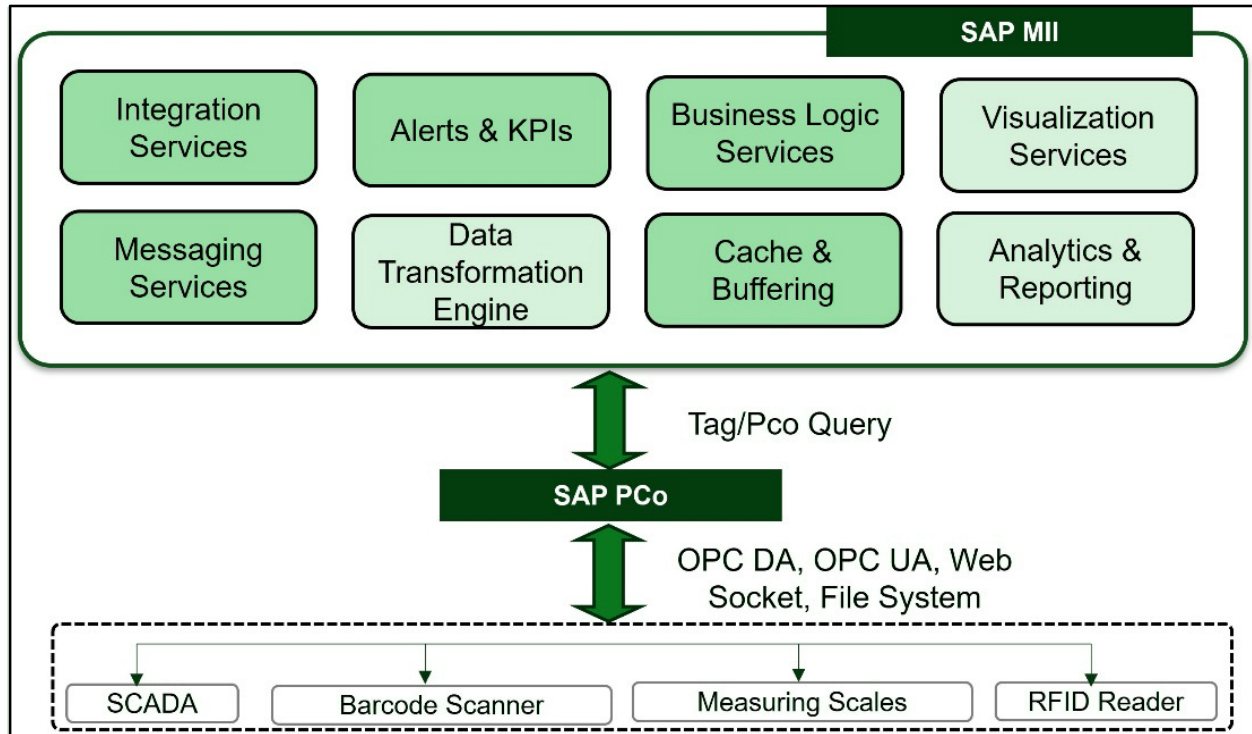
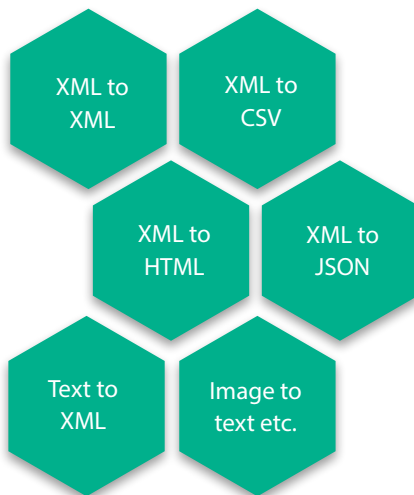


Figure 3 – SAP MII connectivity with Shop Floor

SAP MII, in association with SAP Plant Connectivity (PCo), supports various connectivity protocols for integration with numerous shop floor machines and devices from across OEMs. This seamless integration presents opportunities for process automation across manufacturing operations.

Data transformation



SAP MII's inbuilt capabilities to transform data from one format to another support a wide range of business logic, interpretation needs and visualization requirements. This flexibility enables seamless integration of shop-floor data with enterprise-level systems, ensuring that information is consistently structured and meaningful across the landscape. It also allows real-time normalization, enrichment and contextualization of data from heterogeneous sources such as PLCs, historians, MES applications and ERP systems.

Furthermore, these transformation capabilities empower organizations to standardize data for use within MII or distribute it to multiple peripheral applications—such as analytics platforms, manufacturing execution systems and custom business apps—enhancing interoperability across the enterprise.

Analytics

SAP UI5/Fiori-based, responsive, advanced, and intuitive analytics have served simple to complex business needs across hierarchies, organization-wide. Analytics driven by qualitative data helps businesses in efficient decision-making through:

- Real-time dashboards
- Multi drilldown reporting
- Key Performance Indicators (KPI) monitoring

OEE

The SAP MII OEE package is a value-add module for MII and requires configuration using CTC wizards in Netweaver and ECC.

The SAP MII OEE module is a purpose-built manufacturing performance capability that enables organizations to **measure, monitor and improve asset productivity** in near real-time. Built on SAP Manufacturing Integration and Intelligence (MII), the OEE add-on provides a standardized framework to capture machine and production events, calculate OEE KPIs and visualize performance across lines, cells, and plants. It helps convert raw shop-floor signals into actionable insights by contextualizing runtime, downtime, speed losses and quality losses using consistent business rules.

Miscellaneous scenarios

7.1. Digital Worker application

Application to support labor management through integrations with third-party attendance applications and by providing appropriate screens for supervisors or managers to clock in or clock out for approvals.

7.2. Monitoring and Alerting

Leveraging MII's alert framework for proactive monitoring of shop floor machines for any anomalies and alerting for timely corrective action.

7.3. Plant Asset Hierarchy

Leveraging MII's Plant Information Catalog (PIC) functionality for the hierarchical modeling of shop floor machines, and thereafter, to build solutions supporting digital twin, etc.

Options for SAP MII replacement

We present thoroughly analyzed options to replace SAP MII, categorized by fitment, domains and types and their suitability for distinct manufacturing scenarios.

1. Like-to-like

1.1. SAP Digital Manufacturing¹

- **Overview:** SAP Digital Manufacturing is a SaaS MES Application from SAP, a.k.a. SAP DM. It is deployed in the public cloud and unifies production execution, visibility and analysis into a central system for tracking manufacturing processes, from material procurement to product delivery across sites. SAP DM leverages the footprints of SAP ME/MII and supports sustainable, risk-resilient manufacturing operations through a resource-efficient Industry 4.0 approach.
- **Features:**
 - SaaS offering with cloud native capabilities.
 - Caters to both process and discrete industries.
 - Advanced AI/ML capabilities for error-prone manual work reduction.

- **Best For:** Multi-site mid to large-scale implementations looking for a global template solution following a central unified architecture with SAP ERP in the landscape.

2. COTS Packages from other market leaders

2.1. Siemens Opcenter

- **Overview:** Siemens Opcenter offers a comprehensive suite of solutions for manufacturing operations management, including MES, Manufacturing Intelligence and Quality Management. It integrates production processes, provides real-time visibility and optimizes operational efficiency.
- **Features:**
 - Real-time production monitoring and analytics.
 - MES capabilities for production execution, scheduling and traceability.
 - Integration with industrial automation systems and ERP systems.

2.2. Dassault Systèmes Delmia Apriso²

- **Overview:** Apriso is a complete package for manufacturing, as it orchestrates the transformation of global production operations for manufacturing customers. It helps manage the end-to-end business process lifecycle and is predominantly used in discrete industries.
- **Features:**
 - Supports easy configuration of business processes to adapt to changing business needs.
 - Enables synchronized manufacturing operations by seamlessly integrating the shopfloor with enterprise systems like ERP and PLM.
 - Enhances Quality Control processes and reduces quality cost through efficient defect identification, simplified resolution and prevention.

While we have listed a few products above, other notable ones include Critical Manufacturing, iBaseT Solumina, Tulip, and Rockwell FTFC.

3. Light MES applications

A light MES provides core shopfloor execution and visibility capabilities with limited functionality, minimal complexity, faster deployment and lower TCO compared to full-scale MES solutions.

3.1. Ignition³

- **Overview:** Ignition MES is designed to bridge the gap between the plant floor and the ERP system by providing real-time data collection, process control, and data analysis capabilities. It is often used in conjunction with the Ignition SCADA platform. It can be customized to meet specific manufacturing needs, allowing for integration with various systems and devices.

● **Features:**

- Process control for various production processes on the shop floor.
- Modular architecture gives flexibility to add specific business modules like OEE, SPC, etc., as needed.
- MES platform designed to be scalable, allowing footprint expansion as per the business needs.

Additional options to consider include PICO, Penta, and Vegam.

4.Leverage ERP as the core platform for MES capabilities

4.1.Microsoft Dynamics 365 Supply Chain Management⁴

- **Overview:** Microsoft Dynamics 365 is an ERP platform with robust supply chain and manufacturing management capabilities. It includes features for real-time monitoring, production planning, and IoT device integration to optimize operations.
- **Features:**
 - Real-time manufacturing execution data.
 - Integration with IoT and machine data for predictive analytics.
 - Advanced planning, scheduling, and supply chain management.

Other options in this category include SAP S/4HANA and Oracle Fusion Cloud ERP.

5.Custom MES

5.1.Cloud Native Microservices-based Architecture

Most prominent hyperscalers, such as AWS, Microsoft Azure, and GCP, offer microservices. These can be used for a defined application that delivers core MES functionalities and advanced analytics, tailored to the manufacturer’s requirements.

5.2.Open platform/technology

Leverage conventional frontend and backend languages like Java, .Net, SQL, and HTML for custom MES development and deployment. Agile methodology can be leveraged for iterative development and for a CI/CD pipeline to automate the build and deployment process.

Reports from industry analysts such as IDC MarketScape⁵ and Gartner⁶ provide a detailed comparative analysis of applications in the MES space and their performance over the years in the market.

Key strategic principles underpinning this migration

In the descending order of criticality for consideration

Infra Support	Capabilities	Solution	Vendor	Adoption
<ul style="list-style-type: none"> • On-premise/SaaS • Supported platforms 	<ul style="list-style-type: none"> • OOTB strengths • Flexible customization 	<ul style="list-style-type: none"> • Current State Maturity • Data Migration Possibilities 	<ul style="list-style-type: none"> • Market Reputation • Application Support Strategy 	<ul style="list-style-type: none"> • Application Features • Organizational Change Management

- Infra support for the application to be available as an on-premises setup or on the cloud as a SaaS offering would play a crucial role, with its own advantages and disadvantages. Supported platforms for either of these are equally important to align with the organization-level IT and security protocols. For example, highly regulated environments of life sciences companies might restrict the use of a public cloud platform, or the org level policies might mandate the use of Linux servers only.
- Application’s OOTB technical and functional capabilities will determine its fitment with the existing business processes and functions, as that is one of the major factors driving overall cost and complexity of the implementation and maintenance of the solution. At the same time, the ease of customization should also be assessed for the fitment of critical business processes, if need be.
- Vendor’s market reputation for its previous and current applications will give the organization confidence to select a particular application after considering:
 - Vendor’s vision on product roadmap for enhancements
 - Lead time for resolution of the product-related issues/tickets and the quality of resolution.
- The current state and maturity level of the application will play a vital role in the transformation, given SAP MII has been in the market for over two decades, albeit under different names as well initially, providing a platform to build anything and everything related to the manufacturing operations. Customers would also want to ensure that the data accumulated over so many years doesn’t require a heavy investment of effort and cost to migrate to the new application.
- Last but not least, the ease of Organizational Change Management for the adoption of the application and the ability of the application to cater to “must have” and “good to have” features and functionalities would be a win-win situation for the organization and the end-users.

SAP's recommendation

SAP's natural and obvious recommendation for SAP MII replacement will be another SAP product, i.e., SAP DM.

SAP DM, built to be the successor of SAP MII and SAP ME together, is a SaaS offering. Hence, it is expected to bring the strengths and goodness of SAP MII and SAP ME, with native cloud capabilities for sizing, performance, capacity, etc. In addition, SAP has a robust roadmap for DM's quarterly releases to make it more enhanced and mature with every release.

Here are key reasons why SAP DM is considered a suitable successor to SAP MII:

- Member of the SAP ecosystem with seamless connectivity with SAP ERP.
- Strong capabilities of integration with the shop floor.
- Embedded SAP Analytics Cloud (SAC) offers advanced and insightful analytics.
- SAP Fiori and UI5-based intuitive and responsive user interfaces.
- Backed by SAP BTP strengths for further strengthening of integration and customization capabilities.

Migration approach to be considered

Governance

It is important to build a concrete plan to replace SAP MII with another product/platform and to plan strategically, minimizing disruption, controlling costs, and ensuring continuity, rather than rushing into a replacement. Manufacturers with support of industry experts shall focus on achieving the desired transformed state through a well-thought, planned, structured and timely manner.

Some of the considerations to be made are:



Start right away

It's advantageous to start right away because early planning gives manufacturers control instead of being forced into a rushed, high-risk replacement later. It also ensures continuity of support and security before SAP MII becomes obsolete, reducing the risk of unexpected downtime, cyber vulnerabilities, and compliance issues; thus, providing manufacturing organizations with an opportunity for a smooth, risk-free, and cost-efficient transition.



Early involvement of consulting/SI partner

Because of the complexities involved in transitioning from the current SAP MII setup to a new identified product, early involvement of a consulting/SI partner

to build and strategize the transition roadmap will successfully orchestrate this overall process. The experts can assist with a clear assessment of current and future needs, avoid technical and operational pitfalls, expedite vendor evaluation and right product selection, smooth transition and change management strategy, cost savings and risk reductions, amongst others.



Step-wise approach

Be it a small, medium, or large-scale manufacturing setup, a big-bang leap can be risky and affect an organization's operations and manufacturing backbone. Hence, a staggered step-wise approach would ensure optimal and risk-free execution.



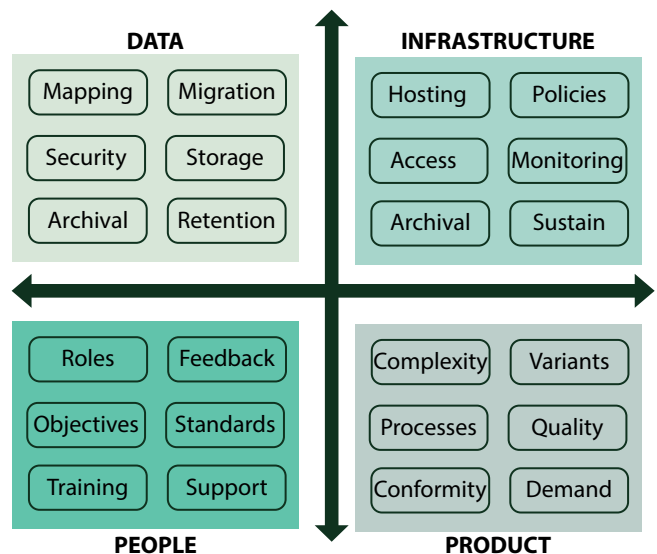
Discovery & Product selection

It is recommended to conduct a product discovery and selection exercise to assess a few shortlisted applications using a MoSCoW feature model. It has proven to be a worthy exercise for a larger investment and a massive transformation of the manufacturing landscape.

Solution

The success of an MES implementation hinges on the seamless integration of data, infrastructure, people, and product.

Data serves as the foundation, requiring robust security and accessibility to ensure accurate insights and operational efficiency. Infrastructure encompasses scalable computing resources, network reliability and cloud or on-premises architecture. People are central to adoption and success; clear roles, training and collaboration frameworks empower teams to exploit technology effectively. Finally, the product being manufactured dictates the functional requirements and process automation, ensuring that the solution aligns with production workflows, quality standards and compliance needs. Together, these pillars create a cohesive ecosystem that drives innovation, efficiency and resilience.



Conclusion

While there are several options available to replace MII with merits such as features, type of offering, vendor's relevant reputation and cost, it's important to understand the intent of the current implementation of SAP MII to evaluate and finalize on the right-fit product. The timing and approach for the overall process are pivotal to a successful transition out of MII and embracing a newer, indispensable application into the IT landscape of the manufacturing organization.

How can Infosys help you in this transformation journey?

With over 25 years of expertise in executing MES-MOM programs globally, Infosys delivers turnkey experiences from assessment and blueprinting through implementation and rollouts, following industry best practices and cutting-edge delivery methodology.

Infosys Manufacturing Platform Selection Framework (IMPSF) shall assist in evaluating the right replacement product by considering tenets such as Technology Depth, Business Functions & Processes Support, Product Maturity, Total Cost of Ownership, etc., for a 360-degree product evaluation and comparison, and recommend the best-fit product in line with the business requirements.

References

1. <https://www.sap.com/products/scm/digital-manufacturing.html>
2. <https://www.3ds.com/products/delmia/aprigo>
3. <https://inductiveautomation.com/ignition/>
4. <https://www.microsoft.com/en-us/dynamics-365>
5. <https://www.idc.com/promo/idcmarketscape/>
6. <https://www.gartner.com/>

Definitions/Abbreviations

ERP	Enterprise Resource Planning	RFC	Remote Function Call
MII	Manufacturing Integration & Intelligence	CTC	Central Technical Configuration
OEE	Overall Equipment Effectiveness	ECC	Enterprise Central Component
KPI	Key Performance Indicator	MES	Manufacturing Execution System
PCo	Plant Connectivity	AI/ML	Artificial Intelligence/Machine Learning
OPC	Open Protocol Connectivity	SCADA	Supervisory Control and Data Acquisition
DA	Data Access	SPC	Statistical Process Control
UA	Unified Architecture	PLM	Product Lifecycle Management
COTS	Commercial Off the Shelf	BAPI	Business Application Programming Interface
SaaS	Software As a Service		
SAP ME	SAP Manufacturing Execution		
SAP DM	SAP Digital Manufacturing		
IT	Information Technology		

Disclaimer - The views and opinions expressed here are those of the authors and do not necessarily reflect the views of any affiliated organization.

About the Authors



Anuj Suryawanshi
Principal Consultant | IOT | Infosys



Minakshi Rathi
Lead Consultant | IOT | Infosys



Amit Rath
Industry Principal | IOT | Infosys



For more information, contact askus@infosys.com



© 2026 Infosys Limited, Bengaluru, India. All Rights Reserved. Infosys believes the information in this document is accurate as of its publication date; such information is subject to change without notice. Infosys acknowledges the proprietary rights of other companies to the trademarks, product names and such other intellectual property rights mentioned in this document. Except as expressly permitted, neither this documentation nor any part of it may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, printing, photocopying, recording or otherwise, without the prior permission of Infosys Limited and/ or any named intellectual property rights holders under this document.