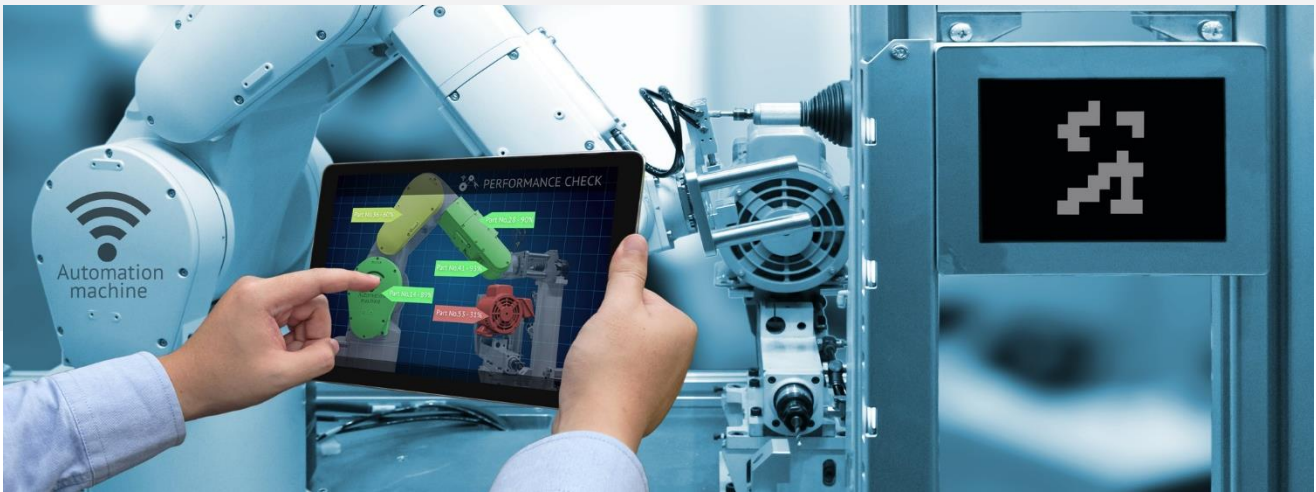


Digital Manufacturing Quick Wins

MHP: YOUR PARTNER FOR THE DIGITAL FUTURE



1) OEE - IMPROVE AVAILABILITY, QUALITY, AND PERFORMANCE WITH REAL TIME VISIBILITY

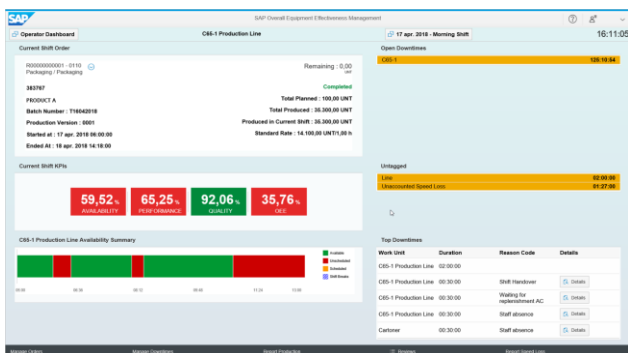
Motivation

Being able to measure and track productivity and identify the root cause of losses in the factory is essential for identifying optimization opportunities and increase competitiveness. And having this information in real time enables faster decision making.

integration to the SAP ERP makes this a perfect tool for production workers to execute their tasks and have all facts needed for effective decisions.

Why MHP?

SAP has been an integral part of our DNA for over 20 years - we advise our customers from strategy and conception to implementation. SAP Digital Manufacturing is part of our core capabilities with expertise implementing successful projects in multiple manufacturing industries and worldwide locations. Our Smart Manufacturing practice has process and technology experts that help companies identify opportunities and capitalize on them. Our proven best practices, methodologies and approach allow for a short time to value and fast return on investment.



Overall Equipment Effectiveness is an industry standard for measuring quality, performance, & availability and SAP OEE is a robust and scalable solution that help manufacturers provide its employees with an intuitive way of executing orders, managing downtimes, do manual and automatic data collection, report yield, scrap, losses & reasons and visualize real time OEE and other relevant KPIs. Its native



Our Approach

Our proven approach involves a mix of agile and classical methods that ensure a smooth implementation process.

1: Preparation

- Project scope definition
- Setup project infrastructure and team
- Prepare project plan
- SAP BASIS install

2: Blueprint

- Business requirements workshops
- GAP analysis
- Specifications based on standard OEE functionality & requirements

3: Realization

- SAP OEE implementation
- Configure Plant Connectivity
- Configure ERP integration
- Optional: HANA DB integration

4: Test & Operate

- Integration testing
- User acceptance testing
- Train the trainer
- Go live and stabilization

Timeline

A standard SAP OEE implementation duration is 9 weeks.

Here is a sample timeline:

Phases	Activities	Timeline Estimate (weeks)								
		1	2	3	4	5	6	7	8	9
Preparation	Install MII Server (1 for pilot) and planning	Remote	Remote							
Blueprint	Definition workshops and high level specs		On-Site							
Realization	Technical design and construction			Remote	Remote	Remote	Remote	Remote	Remote	Remote
Test & operate	Integrated tests, UAT, and corrections								On-Site	
	Cut over, go-live and stabilization								On-Site	★ GO LIVE

Remote

On-Site

Assumptions

- Sample timeline and price considers a pilot with 3 production lines connected via OPC server (3 machines).
- For the pilot, one environment (DEV) will be setup. At a second phase, QA and PRD servers should be setup.
- Work in systems other than SAP MII is not included

Price Reference

- EUR 150.000 (one hundred fifty thousand euro)
- Mix of on-site and off-site work.
- No travel expenses considered in price estimation.
- Hardware and licenses not included.



2) UPGRADE – MAINTAIN BUSINESS CONTINUITY AND PROTECT YOUR ENTERPRISE

Motivation

Companies with existing SAP MII implementations can realize multiple benefits when upgrading to the latest release of SAP MII:

- Protect the enterprise with the latest security patches
- Maintain business continuity
- Run an SAP supported release
- Reduce maintenance costs
- New features and functionalities to increase efficiency and usability
- Architectural and operational enhancements

Why MHP?

SAP MII is a core competency in our Smart Manufacturing practice. We have SAP MII experts that have executed multiple upgrades for manufacturing clients. Our expertise helps minimize risk and identify opportunities while working on your SAP MII upgrade project.

Our Approach

1: Discovery

- Fill out the upgrade questionnaire
- Present product roadmap overview and evolution
- Discuss and define upgrade strategy
- Discover project scope and complexity

2: Planning

- Create a schedule for your upgrade process
- Confirm that all prerequisites are in place
- Fill out the delivery status and risk management spreadsheets
- Understand existing / necessary documentation of the solution

3: Preparation

- Install MII (latest version) & additional required components
- Prepare your systems for the upgrade process

4: Upgrade Process

- Use MII's Project and Configurations export/import features
- Check the log for errors & root-cause

5: Follow-up Activities

- Confirm the upgrade by testing applications in SAP MII's latest version
- Go-live, rollout and stabilization

Timeline

A standard SAP MII upgrade/migration duration is 7 weeks. Here is a sample timeline:

Phases	Activities	Timeline Estimate (weeks)						
		1	2	3	4	5	6	7
Discovery	Fill out the Upgrade Questionnaire	█						
	Present Product Roadmap Overview and Evolution		█					
	Discuss Upgrade Strategy			█				
	Discover Project Scope and Complexity				█			
Planning	Create a schedule for your migration process				█			
	Confirm that all prerequisites are in place					█		
	Fill out the Delivery Status and Risk Management spreadsheets						█	
	Read all necessary documentation							█
Preparation	Prepare your system for the upgrade process							█
	Install/Upgrade Netweaver/MI (new) and additional components							█
Upgrade/Migration Process	Convert and transport projects and configuration from the current PRD server to the new server DEV							█
	Unit Tests - Check Netweaver log for errors and fix them							█
	Transport projects and configuration to QA							█
	Support Integrated Test							█
Follow-Up Activities	Support UAT							█
	Transport projects and configuration to PRD/PRD 2							█
	Go-live and stabilization							█
	Support Post Go-Live and Knowledge Transfer							█

Remote On-Site

Assumptions

- Fresh installation of MII is considered in this proposal. Migration from old instance to new instance will be performed. This will allow to highly reduce downtime window for the production system. Upgrade in the existing MII instance is not considered in this estimate.
- Versions of current systems considered in this sample estimate (or higher): NW 7.4, MII 15.0.

Price Reference

- EUR 80.000 (eighty thousand euro)
- Remote work considered.

