MES in 7 Stages:

From Evaluation to Execution

A Practical Path from
MES Evaluation to
Operational Value

inflexion point

MES Roadmap for Manufacturers

Implementing MES is one of the most impactful investments a manufacturer can make—but it's often mishandled.

Most MES projects don't fail because of the software.

They fail because the groundwork wasn't done first—unclear objectives, poor alignment, and disconnected systems.

This roadmap outlines a structured path from evaluation to execution—helping manufacturers implement MES the right way and deliver real operational value.

Phase One: Define the Business Case

The MES journey should begin with a clear understanding of the operational problems the system must solve.

Key Activities

- Assess production workflows
- Identify visibility gaps
- Evaluate automation and data systems
- Define operational KPIs (OEE, yield, scrap)
- Identify regulatory and traceability needs

Key Outputs

- MES business objectives
- Digital manufacturing vision
- Initial ROI model
- Stakeholder alignment

Role of InflexionPoint

InflexionPoint helps manufacturers conduct structured operational assessments that translate plant challenges into MES functional requirements.

Phase Two: Design the Digital Manufacturing Framework

Before selecting a platform, manufacturers must design the architecture for how MES will integrate with existing systems.

Key Activities

- Define production data model
- Map PLC and SCADA integration
- Define ERP integration needs
- Design system architecture
- Establish cybersecurity and governance

Key Outputs

- MES architecture blueprint
- Integration architecture
- Data and reporting strategy
- Cybersecurity framework

Role of InflexionPoint

With expertise in automation, controls, and IT/OT architecture, InflexionPoint ensures MES integrates seamlessly with production infrastructure.

Phase Three: Select the Right Platform

Different MES platforms excel in different environments. Selection should be based on operational fit rather than vendor marketing claims.

Key Activities

- Define vendor evaluation criteria
- Conduct vendor demonstrations
- Evaluate integration capabilities
- Assess scalability and licensing models
- Perform proof-of-concept pilots if needed

Key Outputs

- Vendor shortlist
- Scoring matrix
- Total cost analysis
- Selection recommendation

Role of InflexionPoint

InflexionPoint provides vendor-neutral MES evaluation, helping manufacturers select platforms aligned with their operational needs.

Phase Four: Translate Requirements into System Design

After selecting the platform, the MES solution must be configured to support the plant's production processes.

Key Activities

- Define production workflows
- Design operator interfaces
- Configure quality & traceability
- Define reporting & dashboards
- Plan system integration

Key Outputs

- Functional design spec
- Integration design docs
- Implementation plan

Role of InflexionPoint

InflexionPoint engineers design MES systems that reflect how production actually operates, ensuring high adoption by operators and supervisors.

Phase Five: Deploy the MES System

This phase involves the technical implementation and integration of the MES platform with plant and enterprise systems.

Key Activities

- Configure MES modules
- Integrate PLC, SCADA & historian systems
- Implement ERP & enterprise integration
- Test and validate system
- Train operators and supervisors

Key Outputs

- Configured MES platform
- Integrated plant systems
- Validated workflows
- Trained operations teams

Role of InflexionPoint

InflexionPoint specializes in automation integration, ensuring MES connects seamlessly to production equipment and plant systems.

Phase Six: Transition to Production Operations

The transition from implementation to daily operations is critical.

Key Activities

- Production cutover planning
- Operator support during ramp-up
- Monitoring system performance
- Refining workflows and dashboards

Key Outputs

- Stable production operation
- Operational dashboards
- Initial performance improvements

Role of InflexionPoint

Our teams provide on-site and remote support during MES go-live, helping ensure smooth adoption.

Phase Seven: Expand MES Value Over Time

The most successful MES implementations evolve into a continuous improvement platform.

Key Activities

- Expand across lines and facilities
- Integrate additional equipment
- Add advanced analytics
- Improve reporting and dashboards
- Support digital initiatives

Key Outputs

- Improved operational performance
- Expanded MES capabilities
- Data-driven decisions

Role of InflexionPoint

Through managed OT services, InflexionPoint supports and optimizes MES systems over the long term.

Typical MES Implementation Timeline

MES is not a quick deployment — it's a phased transformation that touches operations, systems, and people.

While timelines vary by facility size and complexity, most successful implementations follow a structured progression like the one below.

The key is not speed—it's sequencing.

Each phase builds on the last, reducing risk and ensuring long-term success.

Phase	Duration
Operational Assessment	4–6 weeks
MES Strategy & Architecture	4–8 weeks
Vendor Evaluation	6–10 weeks
Solution Design	6–12 weeks
Implementation & Integration	3–9 months
Go-Live	2–4 weeks
Continuous Improvement	Ongoing

The Value of an Experienced Systems Integrator

MES success depends on more than software.

Success comes down to alignment—systems, data, and workflows from the start.

A strong integrator ensures:

- MES reflects how your operation actually runs
- Systems integrate with plant infrastructure
- Operators adopt the platform
- The system evolves with the business

InflexionPoint brings together automation, MES, and IT/OT expertise to help manufacturers implement and scale MES with confidence.

inflexion point