



SENSEYE PREDICTIVE MAINTENANCE

# Guided by our Expertise: A Step-by-Step Approach to Implementing Predictive Maintenance at scale

Find out more: [siemens.com/senseye-predictive-maintenance](https://siemens.com/senseye-predictive-maintenance)

**SIEMENS**

Siemens' approach to implementing a successful Predictive Maintenance (PdM) deployment is organized into five distinct stages, each providing the essential insights and guidance needed to build PdM capabilities, even for organizations at the beginning of their journey.

# 1

# 2

# 3

# 4

# 5

Scope	Design	Deploy	Operate	Refine
<ul style="list-style-type: none"><li>Understand value and benefits</li><li>Define objectives and constraints</li><li>Planning &amp; Resources</li><li>Establish project charter</li></ul>	<ul style="list-style-type: none"><li>Asset selection</li><li>Identify failure modes and related data</li><li>Using PdM and context</li><li>Data architecture and transformation</li></ul>	<ul style="list-style-type: none"><li>Installation, data capture and storage</li><li>Pre processing and streaming data</li><li>Onboarding &amp; configuration</li><li>Contextual data setup</li></ul>	<ul style="list-style-type: none"><li>Notification monitoring</li><li>Maintenance events</li><li>case reviews</li><li>Periodic reviews</li></ul>	<ul style="list-style-type: none"><li>Improving data precision &amp; integrity</li><li>Increasing PdM adoption</li><li>ROI and scaling</li><li>Workflows and integration</li></ul>

Whether you're just starting out or looking to scale your PdM efforts, putting your journey in expert hands ensures you're backed by industry-leading expertise every step of the way. With Siemens' proven methodology, you'll maximize asset performance and stay ahead of maintenance challenges.

## SCOPE

Before you begin your PdM journey, it is essential to assess the readiness of your organization and decide on the scale of deployment you are looking to start with.

We have listed some example questions below to determine your preparedness and identify what areas may need extra consideration.

- What's the main requirement for Predictive Maintenance (PdM) in your facility?**
- What does your current maintenance strategy look like?**
- How do you envision PdM impacting your maintenance teams?**
- Is there budget already allocated or available for PdM implementation?**
- What information about your machines would you like to have that you currently do not?**
- Do you have existing data collection, visualization, or analysis systems in place?**

[Assess your readiness for PdM at scale by using our ROI Calculator](#)

## DESIGN

During the Design stage, we will use operational business data to select the most suitable machines for monitoring. This ensures that the right type of monitoring is used, informed by the right type of data, in an established operating context.

We will identify and prioritize those assets with the most significant impact on production, determining the main failure modes of each asset—and the data needed to detect those failure modes—before prioritizing them in terms of value and effectiveness. Finally, we will define the IT/OT architecture of the project and provide support to help you determine how PdM is going to be used in your environment, implement it into your workflow and which team members will take ownership of the platform.

### Steps Involved:

- 1. Asset selection**
- 2. Failure mode and data selection**
- 3. Using PdM and operating context**
- 4. Data architecture and transformation**

## DEPLOY

This stage ensures that the right condition monitoring and contextual data is available, captured, and validated in a meaningful form.

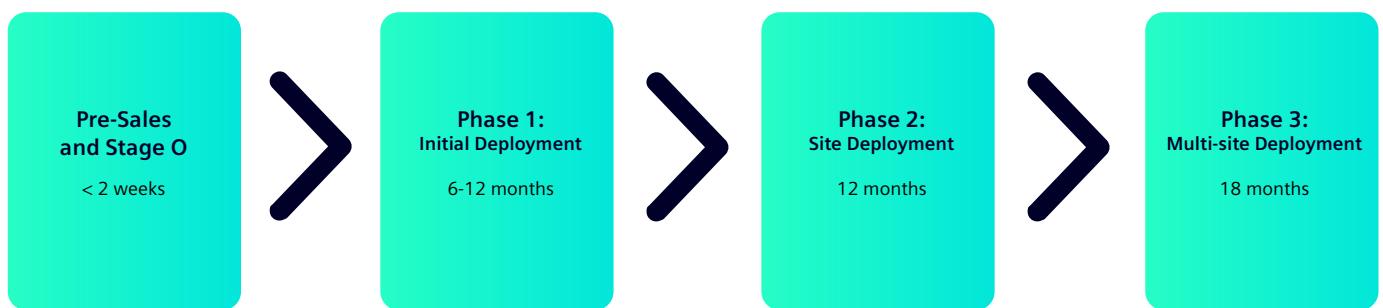
To achieve this, we implement pre-processing of machine parameters and condition monitoring data, support the installation of sensors when required, and configure the app with the relevant context to understand abnormal machine behavior.

The Senseye Predictive Maintenance system is connected to the organization's IOT system through existing infrastructure or out of the box siemens solutions and configured with the cloud. Additionally, we train end-users on how to use the system.

### Steps Involved:

1. Installation, source data, and storage
2. Pre-process and stream data
3. Onboarding into Senseye Predictive Maintenance and configuration
4. Contextual data integration and PdM in use

### DEPLOYMENT TIMELINE



## OPERATE

This stage ensures the deployment is achieving business outcomes, this is the main goal of any PdM deployment, where end users are alerted to real issues ahead of time so they can act to avoid unplanned downtime, and optimize their maintenance strategy.

The purpose of this stage is to raise awareness of asset attention levels and case generation notifications in preventing downtime or failure, highlighting the importance of maintenance events as context to improve analysis.

Users will learn how to implement the Case review process (Senseye's active alerting system) and carry out periodic reviews of the PdM deployment with a designated steering committee.

### Steps Involved:

1. Monitor notifications
2. Maintenance events
3. Case reviews

## REFINE

In the Refine stage, users will periodically reflect on the progress of the PdM project. Reviewing best practices and KPIs, they will collate evidence for ROI, and refine condition monitoring data and condition indicators. Additionally, they will define a strategy for scaling the PdM deployment and integrate PdM into other applications.

### Steps Involved:

1. Data precision and integrity
2. Predictive Maintenance adoption
3. ROI and scaling

## Workflow and integration

Covering areas from choosing which machines to monitor and defining the best data acquisition strategy, through the day-to-day use of PdM, to scaling PdM capability throughout an organization, each stage can be further split into four distinct phases.

Many but not all of these phases will require workshops with different stakeholders to allow for the collection of relevant information and knowledge.

The Siemens approach to Predictive Maintenance implementation provides a clear, structured path to success. By following the five stages Scope, Design, Deploy, Operate, and Refine you can confidently build a robust PdM capability that drives efficiency, reduces unplanned downtime, and delivers tangible ROI.

**Get in touch today to start transforming your maintenance strategy and unlock the full potential of predictive maintenance for your business.**

To begin your predictive maintenance journey contact: [senseye-predictive-maintenance.digital@siemens.com](mailto:senseye-predictive-maintenance.digital@siemens.com)

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