



From Reactive Firefighting to Leading Indicators: What to Track Instead of Just MTTR

Most maintenance teams track mean time to repair and the number of breakdowns. These numbers are easy to pull and they show what already happened. The problem is that they are lagging indicators. By the time MTTR rises or the breakdown count climbs, the failures have already occurred, production has already been lost, and the crew is already in firefighting mode.

Leading indicators give earlier warning. They show whether the work being done today is likely to reduce failures tomorrow. A CMMS that captures complete work-order data makes several of these measures visible without extra systems. Shifting attention from pure lagging metrics to a small set of leading ones changes the conversation from “how fast did we fix it” to “are we preventing the next one.”

Lagging Metrics Still Matter—They Just Aren’t Enough

MTTR and breakdown counts remain useful. They quantify the impact of failures and help justify resources. They do not, however, tell you whether preventive work is effective, whether the same assets keep failing, or whether the crew is spending most of its time on planned tasks. Relying on them alone keeps the organization reactive.

Four Leading Indicators a CMMS Can Show

Planned versus unplanned work ratio: The percentage of labor hours (or work orders) that were planned and scheduled versus those that arrived as breakdowns. A rising share of planned work usually precedes a drop in unplanned failures.

PM compliance with quality checks: Simple completion percentage is not enough. Add a light quality filter—were required readings, photos, or notes included? High compliance on paper with missing data often means PMs are being pencil-whipped.

Repeat failures on the same asset: Count how many reactive work orders hit the same asset within 30 or 90 days. A short list of repeat offenders is one of the clearest signals that the current strategy is not working.

Mean time between interventions: For critical assets, track the average time between any maintenance interventions. A lengthening interval suggests the asset is becoming more stable.

A Simple Dashboard Layout

You do not need a complex business-intelligence tool. Four tiles or a single-page view updated weekly is enough: Planned vs. unplanned ratio (current week and trend), PM compliance plus count of incomplete PMs, Top 5 assets by repeat reactive work, and Average days between interventions for critical assets.

Place the lagging numbers in a smaller section so they remain available but do not dominate. Review the dashboard in the weekly planning or reliability huddle and assign one action to any metric moving the wrong direction.

How to Start

Pull the four leading measures from work-order history for the past 30–60 days to establish a baseline. Set a recurring weekly review—15 minutes is sufficient—and look only at exceptions and trends. Require the underlying data so the numbers stay trustworthy. Within a month the team will spend less time explaining last week's breakdowns and more time adjusting the work that prevents the next ones.

Leading indicators do not eliminate the need to measure repair performance. They shift the focus upstream so fewer repairs are required.

Which of these leading indicators would give you the earliest warning in your current operation?