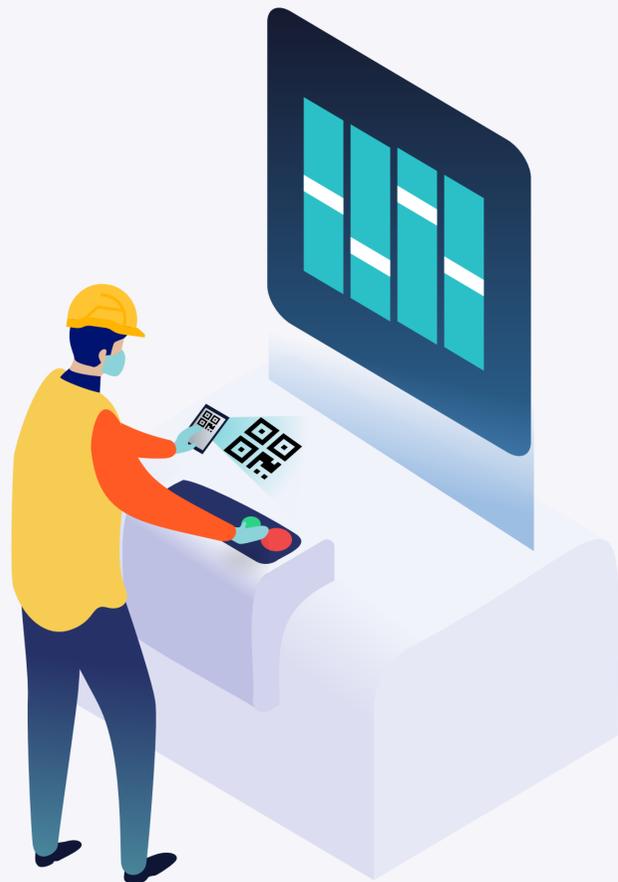


# Maturity Matrix

## Autonomous Maintenance

A plant's maintenance maturity can be characterized by looking at their primary means of detecting issues, how they solve them, and their ability to prevent issues from occurring in the first place. Finally, the maturity score takes into account the degree to which they perform continuous improvement activities after incident resolution.



	UNSTRUCTURED Nothing in place, only personal contributions	SPORADIC Seeds of a deviation- and data-oriented culture	SYSTEMATIC Processes like TPM in place and under control	DIGITIZED Digital benefits here but slowed by company & tool silos	INTELLIGENT Full utilization of all available data
DETECT & REGISTER	<p>No planned checks are made, deviations discovered by accident</p> <p>Unsystematic communication between maintenance and production</p> <p>Record is loose-leaf paper</p>	<p>Regular checks are done by maintenance</p> <p>Only production management is informed of breakdown or maintenance</p> <p>Record is in a paper-based registry</p>	<p>Regular checks are done by production</p> <p>Some operators are informed by a colleague in person or by phone</p> <p>Record is a paper-based record copied to a database w/ photos</p>	<p>Equipment is monitored by a local sub-system</p> <p>All operators are informed if they check monitoring devices</p> <p>Digital record in a standalone database with photos and pre-filled information</p>	<p>Equipment is monitored by a central plant system</p> <p>All relevant operators are proactively informed by mobile device</p> <p>Digital record interconnected in company's single source of truth, w/ tracking of all actions performed</p>
SOLVE	<p>If maintenance cannot fix the issue, an external team is called in</p> <p>No management of SOPs &amp; Manuals</p>	<p>The maintenance team fixes most common issues</p> <p>SOPs &amp; Manuals are paper-based, stored in one place</p>	<p>The production team fixes most common issues</p> <p>SOPs &amp; Manuals are paper-based, stored in various places with version control</p> <p>Local teams can contact an expert, if needed, in an ad hoc fashion</p>	<p>Maintenance is dedicated to proactive work; production team handles day-to-day issues</p> <p>SOPs &amp; Manuals are digital-based with version control</p> <p>Local teams can collaborate (chat) with global expert teams to solve a problem</p>	<p>Maintenance is dedicated to predictive work; production team handles day-to-day issues and light maintenance</p> <p>SOPs &amp; Manuals contain images, videos and links, and relevant ones are proactively suggested to workers when a deviation is registered</p> <p>Each location can access all plant locations' registered deviation history to help in solving their own</p>
PREVENT	<p>No regular maintenance</p> <p>No RCAs are done</p>	<p>Regular maintenance is planned and done by maintenance</p> <p>RCAs are done on paper, sporadically</p>	<p>Regular maintenance is planned and done by production</p> <p>RCAs are done on paper with time loss &gt; 1 shift</p>	<p>Maintenance period is dictated by statistical systems, based on previous results</p> <p>RCAs are systematically done and archived digitally</p>	<p>A failure prediction system is in place, based on sensors and historical data</p> <p>RCAs are systematically done digitally. A follow-up audit is done to check if the true cause is fixed</p>
IMPROVE & STANDARDIZE	<p>Sporadic knowledge exchange between locations</p> <p>Improvements are done ad hoc</p>	<p>Outstanding issues and RCA/resolution contains "Lessons Learned", which are shared sometimes within the company</p> <p>Paper-based idea registration, occasionally reviewed</p>	<p>A regular review of all deviations and RCAs is done within the company</p> <p>Paper-based idea registration, regularly reviewed</p>	<p>RCAs are systematically shared with other locations</p> <p>Digital idea registration, regularly reviewed</p>	<p>All locations can access each other's knowledge, data on deviation or RCAs, in their local language</p> <p>Digital workflow exists for idea registration, implementation and follow-up, regularly reviewed</p>