## 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.

### DETECT & REGISTER

**UNSTRUCTURED**
- Nothing in place, only personal contributions

**SPORADIC**
- Unsysteematic communication between maintenance and production
  - Record is loose-leaf paper

**SYSTEMATIC**
- Regular checks are done by maintenance
  - The maintenance team fixes most common issues
  - SOPs & Manuals are paper-based, stored in one place

**DIGITIZED**
- Equipment is monitored by a local sub-system
  - Digital record in a standalone database with photos and pre-filled information

**INTELLIGENT**
- Equipment is monitored by a central plant system
  - Digital record interconnected in company’s single source of truth, w/ tracking of all actions performed

### SOLVE

**UNSTRUCTURED**
- No planned checks are made, deviations discovered by accident

**SPORADIC**
- Regular checks are done by maintenance
  - Only production management is informed of breakdown or maintenance
  - Record is in a paper-based registry

**SYSTEMATIC**
- Regular checks are done by production
  - The production team fixes most common issues
  - SOPs & Manuals are paper-based, stored in various places with version control

**DIGITIZED**
- Equipment is monitored by a local sub-system
  - Digital record in a standalone database with photos and pre-filled information

**INTELLIGENT**
- Equipment is monitored by a central plant system
  - Digital record interconnected in company’s single source of truth, w/ tracking of all actions performed

### PREVENT

**UNSTRUCTURED**
- If maintenance cannot fix the issue, an external team is called in

**SPORADIC**
- No management of SOPs & Manuals
  - SOPs & Manuals are paper-based, stored in one place
  - Local teams can contact an expert, if needed, in an ad hoc fashion

**SYSTEMATIC**
- Regular maintenance is planned and done by maintenance
  - Regular maintenance is planned and done by production
  - RCAs are done on paper, sporadically

**DIGITIZED**
- Maintenance is dedicated to proactive work; production team handles day-to-day issues
  - SOPs & Manuals are digital-based with version control
  - Local teams can collaborate (chat) with global expert teams to solve a problem

**INTELLIGENT**
- Maintenance is dedicated to predictive work; production team handles day-to-day issues and light maintenance
  - SOPs & Manuals contain images, videos and links, and relevant ones are proactively suggested to workers when a deviation is registered
  - Each location can access all plant locations’ registered deviation history to help in solving their own

### IMPROVE & STANDARDIZE

**UNSTRUCTURED**
- No regular maintenance

**SPORADIC**
- Regular maintenance is planned and done by production
  - RCAs are done on paper with time loss > 1 shift

**SYSTEMATIC**
- Regular maintenance is planned and done by production
  - RCAs are done on paper with time loss > 1 shift

**DIGITIZED**
- Maintenance period is dictated by statistical systems, based on previous results
  - RCAs are systematically done and archived digitally

**INTELLIGENT**
- A failure prediction system is in place, based on sensors and historical data
  - RCAs are systematically done digitally. A follow-up audit is done to check if the true cause is fixed

### Sporadic knowledge exchange between locations

**UNSTRUCTURED**
- Sporadic knowledge exchange between locations

**SPORADIC**
- Improvements are done ad hoc
  - Paper-based idea registration, occasionally reviewed

**SYSTEMATIC**
- Outstanding issues and RCA/resolution contains “Lessons Learned”, which are shared sometimes within the company
  - A regular review of all deviations and RCAs is done within the company
  - Paper-based idea registration, regularly reviewed

**DIGITIZED**
- RCAs are systematically shared with other locations
  - Digital idea registration, regularly reviewed

**INTELLIGENT**
- All locations can access each other’s knowledge, data on deviation or RCAs, in their local language
  - Digital workflow exists for idea registration, implementation and follow-up, regularly reviewed