In Unplanned Maintenance and Downtime

- Engineering
- HSEQ
- ERP
- Maintenance
- Operations

End-to-End: Connect Assets, People, and Systems

ASSETS & SENSORS
PEOPLE
SYSTEMS & PROCESSES

Context & Priorities

- Essential to lengthen trending analysis and integrate that data across functions
- Essential to consolidate reporting
- Use the bad actor information along with downtime data from PLA to determine criticality ratings for their assets

Solution:

End-to-End: Connect Assets, People, and Systems

Define & Evaluate Asset Strategy

With the integration of data from the SAP EAM system, the control system, and Matrikon, the company was able to calculate Overall Equipment Effectiveness (OEE) of every unit—including metrics for availability, performance, and quality.

Challenges:

$4 Million
The loss each day from production stoppage

If any asset fails (even a small component, such as a flow transmitter), all production stops. And that becomes very costly, very quickly.

Solution:

Context & Priorities

- Essential to lengthen trending analysis and integrate that data across functions
- Essential to consolidate reporting
- Use the bad actor information along with downtime data from PLA to determine criticality ratings for their assets

- Needed to identify the most critical assets
- Inability to discover which assets were the bad actors
- Needed to change from a spreadsheet mentality to one of knowledge capture and sharing
- With a shortage of skilled labor and a very mobile workforce, it was important to put operating data in a location and in a format usable by all

Results:

After implementing APM:

- Avoided more than $20 million in unplanned maintenance costs and downtime
- Identified 55 bad actors in a single plant
- Added breakdown indicators and cleaned all data from the EAM
- Provided 16 days early warning of critical pump failure
- Overcame internal cultural barriers by making production loss personal at all levels in the organization

The Benefits of APM:

- Increased Availability: 2-6%
- Inventory Cost Reduction: 5-10%
- Reduction in Reactive Maintenance: 10-40%
- EH&S Incident Reduction: 3-40%
- Gain in Employee Productivity: 5-25%
- Reduction in IT Lower Total Cost of Ownership: 5-25%

GE Digital’s APM is the only solution that can combine real-time data with human experience, operating parameters, analytics, and connectivity to create intelligent asset strategies that continuously improve over time.