

# SMART

## TURNAROUND MANAGEMENT FOR MANUFACTURERS- BEAT COVID-19

**World is under lockdown** and majority of manufacturers related to non-essential commodities have stopped their production. To make any production facility operational after a long outage, plant managers have to conduct inspection & maintenance activities to avoid any catastrophic failures. This process is similar to turnaround /shutdown/outage management process in which operators take plant outage to carryout major repair & overhaul activities to upkeep the equipment condition.

Any delay in turnaround have huge impact on production plan there by, delay in fulfilling the customer orders or even losing the orders. For example- One day loss of production in 4000 tpd cement plant amounts approx. 350 K USD. In case of automobile plant having capacity of 480 vehicles/day , the estimated losses are upto 410K USD.

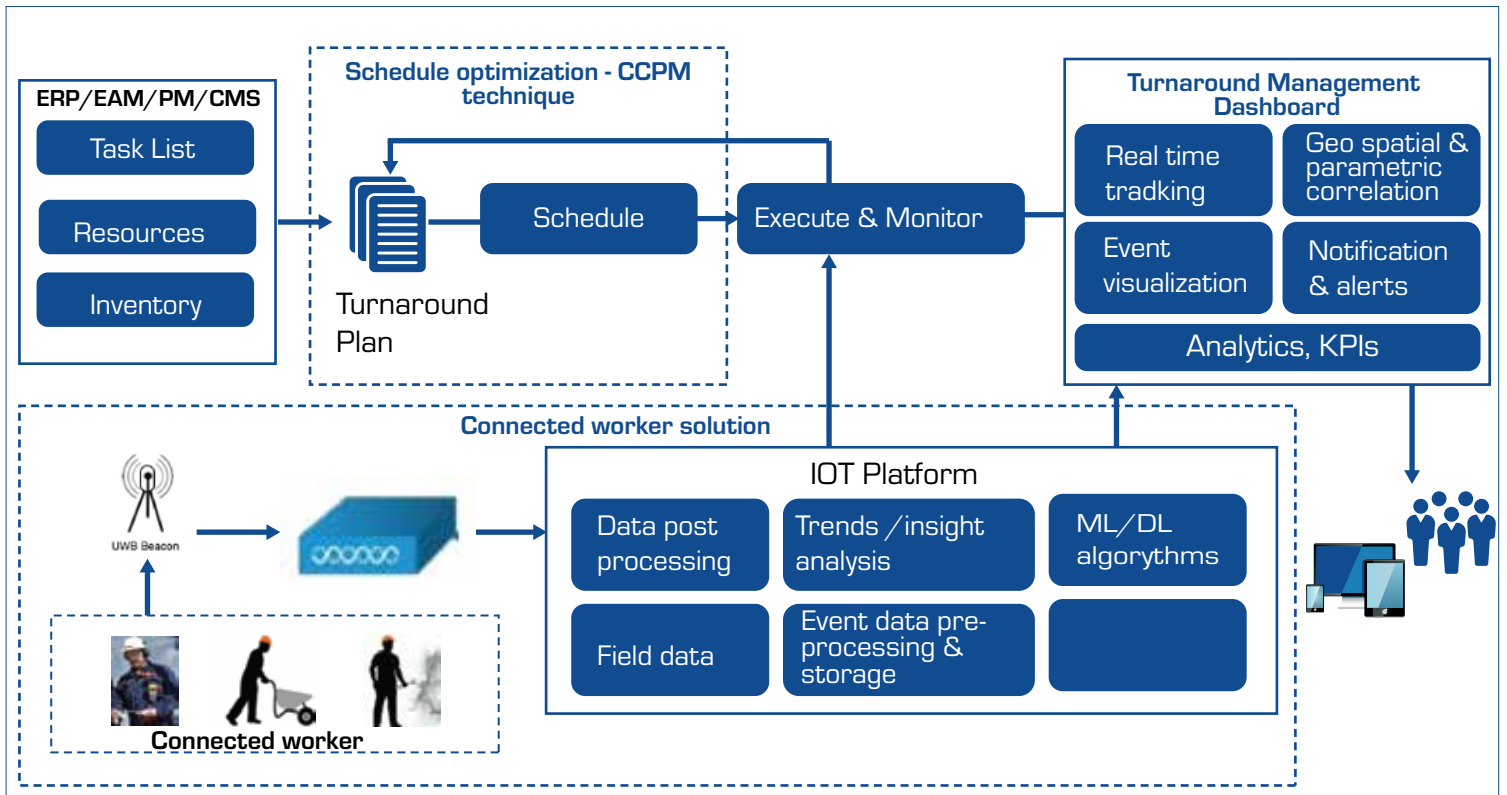
### **Issues faced by manufactures during Turnaround:**

- ▶ Turnaround projects run the risk of time over-runs, thus increasing zero-production days beyond those budgeted days. This typically leads to requirement of workforce double or more in numbers in comparison to normal operation
- ▶ Ensuring the safety of workers in the plant. Workers handle complex machinery exposed to work place hazards like heat exposure, confined space, gas emissions etc.
- ▶ Ensuring the employee productivity

## How Tech Mahindra can help:

- ▶ Proven expertise on Critical Chain Project Management (CCPM) / Theory of Constraints (TOC) consulting
- ▶ Connected worker solution for tracking workers for their safety & productivity
- ▶ Based on our experience with multiple asset intensive industries, anticipated savings will be in range of 10-20%

## Pictorial representation of the solution:



## Benefits

Shorter outage cycle	Enhanced Worker	Effective Contractor Management	Productivity improvement
<ul style="list-style-type: none"> <li>• Manage non-critical path activities better</li> <li>• Near real-time execution status and drill down analysis</li> </ul>	<ul style="list-style-type: none"> <li>• SOS, Fall detection &amp; proximity detection</li> <li>• Geofence, lockout violation alarm</li> <li>• Fatigue Management – Temperature &amp; Heart rate</li> <li>• Knowing the no. of people at site</li> <li>• Tracking/ alarming the unauthorized entry into restricted zones</li> </ul>	<ul style="list-style-type: none"> <li>• Validation of billings with time data / location data</li> <li>• Ensure consistent contract usage</li> <li>• Evaluate vendor productivity / quality impacts</li> </ul>	<ul style="list-style-type: none"> <li>• Locate people / ensure in proper place</li> <li>• Locate Equip/Vehicles / Tools</li> <li>• Evaluate / compare jobs / vendors / etc.</li> <li>• Evaluate resources usage / needs (Equipment, tools, vehicles)</li> </ul>

## Case study

### ▶ Mexican multinational building materials company:

Reduced the customer's plant shutdown time by 28% with additional cement production of 8000 mt

### ▶ French Industrial Company:

Shutdown schedule optimization was done for multiple plants of the customer on an average of 20% leveraging CCPM principles.